

Advaxis, Inc.  
Form 10-K  
January 08, 2016

**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 10-K**

**ANNUAL REPORT UNDER SECTION 13 OR 15(d)**

**OF THE SECURITIES EXCHANGE ACT OF 1934**

**FOR THE FISCAL YEAR ENDED - OCTOBER 31, 2015**

**OR**

**TRANSITION REPORT UNDER SECTION 13 OR 15 (d)**

**OF THE SECURITIES EXCHANGE ACT OF 1934**

**FOR THE TRANSITION PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_**

**COMMISSION FILE NUMBER 000-28489**

**ADVAXIS, INC.**

*(Name of Registrant in Its Charter)*

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Delaware 02-0563870  
(State or Other Jurisdiction of (I.R.S. Employer  
Incorporation or Organization) Identification No.)

305 College Road East  
Princeton, New Jersey 08540  
(Address of Principal Executive Offices) (Zip Code)

(609) 452-9813  
(Issuer's Telephone Number)

Securities registered under Section 12(b) of the Exchange Act: Common Stock - \$.001 par value  
NASDAQ Capital Market

Securities registered under Section 12(g) of the Exchange 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 Section 15(d) of the Exchange 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 [ ]

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

Yes  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, or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer

Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

As of April 30, 2015, the aggregate market value of the voting common equity held by non-affiliates was approximately \$445,644,000 based on the closing bid price of the registrant's Common Stock on the NASDAQ Capital Market. (For purposes of determining this amount, only directors, executive officers, and 10% or greater shareholders and their respective affiliates have been deemed affiliates).

The registrant had 33,769,136 shares of Common Stock, par value \$0.001 per share, outstanding as of January 7, 2016.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Proxy Statement for the registrant's 2016 Annual Meeting of Stockholders (the "Proxy Statement") to be filed within 120 days of the end of the fiscal year ended October 31, 2015 are incorporated by reference in Part III hereof. Except with respect to information specifically incorporated by reference in this Form 10-K, the Proxy Statement is not deemed to be filed as a part hereof.

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## **PART 1**

### **FORWARD LOOKING STATEMENTS**

*This Annual Report on Form 10-K contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. When used in this Annual Report, statements that are not statements of current or historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words “plan”, “intend”, “may,” “will,” “expect,” “believe”, “could,” “anticipate,” “estimate,” or “continue” or similar expressions or other comparable terminology are intended to identify such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Except as required by law, the Company undertakes no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.*

### **Item 1. Business.**

#### **General**

Advaxis, Inc. (“Advaxis” or the “Company”) is a clinical stage biotechnology company focused on the discovery, development and commercialization of proprietary *Lm*-LLO cancer immunotherapies. These immunotherapies are based on a platform technology that utilizes live attenuated *Listeria monocytogenes* (“*Lm*” or “*Listeria*”) bioengineered to secrete antigen/adjuvant fusion proteins. These *Lm*-LLO strains are believed to be a significant advancement in immunotherapy as they integrate multiple functions into a single immunotherapy as they access and direct antigen presenting cells to stimulate anti-tumor T-cell immunity, stimulate and activate the immune system with the equivalent of multiple adjuvants, and simultaneously reduce tumor protection in the tumor microenvironment to enable the T-cells to eliminate tumors.

Axalimogene filolisbac (ADX5-HPV) is our lead *Lm*-LLO immunotherapy product candidate for the treatment of Human Papilloma Virus (“HPV”) associated cancers. We completed a randomized Phase 2 study in 110 patients with recurrent cervical cancer that was shown to have a manageable safety profile, apparent improved survival and objective tumor responses. In addition, the Gynecologic Oncology Group (“GOG”), now part of NRG Oncology, is conducting a cooperative group sponsored Phase 2 open-label clinical study of axalimogene filolisbac in patients with persistent or recurrent cervical cancer with documented disease progression. The study, known as GOG-0265, has

successfully completed its first stage and has met the predetermined safety and efficacy criteria required to proceed into the second stage of patient recruitment. We plan to advance axalimogene filolisbac into a registrational clinical trial for the treatment of women with high-risk locally advanced cervical cancer.

Axalimogene filolisbac has received United States Food and Drug Administration (“FDA”) orphan drug designation for three HPV-associated cancers: cervical, head and neck, and anal cancer, and has received European Medicines Agency (“EMA”) orphan drug designation for anal cancer. It is being evaluated in Company-sponsored trials executed under an Investigational New Drug (“IND”) which include the following: i) a Phase 1/2 clinical trial alone and in combination with MedImmune, LLC’s (“MedImmune”) investigational anti-PD-L1 immune checkpoint inhibitor, durvalumab (MEDI4736), in patients with previously treated metastatic cervical cancer and HPV-associated head and neck cancer; ii) a Phase 2 multi-center, open-label study alone and in combination with Incyte Corporation’s (“Incyte”) investigational oral indoleamine 2,3-dioxygenase 1 (IDO1) inhibitor, epacadostat (INCB24360) in patients with Stage I-IIa cervical cancer; iii) a Phase 1/2 study evaluating higher doses and repeat cycles of axalimogene filolisbac in patients with recurrent cervical cancer; iv) a single arm Phase 2 monotherapy study in patients with metastatic anal cancer; and v) a Phase 2 study in collaboration with and funded by Global BioPharma Inc. (“GBP”), under a development and commercialization license agreement applicable to Asia, HPV-associated non-small cell lung cancer. In addition to Company-sponsored trials, axalimogene filolisbac is also being evaluated in three ongoing investigator-initiated clinical trials as follows: locally advanced cervical cancer (GOG-0265), head and neck cancer (Mount Sinai), and anal cancer (Brown University).

ADXS-PSA is our *Lm*-LLO immunotherapy product candidate designed to target the Prostate Specific Antigen (“PSA”) associated with prostate cancer. This Phase 1/2 clinical trial in combination with KEYTRUDA® (pembrolizumab), Merck & Co.’s (“Merck”) humanized monoclonal antibody against PD-1, is in patients with previously treated metastatic castration-resistant prostate cancer.

ADXS-HER2 is our *Lm*-LLO immunotherapy product candidate designed for the treatment of Human Epidermal Growth Factor Receptor 2 (“HER2”) expressing cancers, including human and canine osteosarcoma, breast, gastric and other cancers. This Phase 1b clinical trial is in patients with metastatic HER2 expressing solid tumors. We received orphan drug designation from both the FDA and EMA for ADXS-HER2 in osteosarcoma. Clinical research with ADXS-HER2 in canine osteosarcoma is being developed by our pet therapeutic partner, Aratana Therapeutics Inc. (“Aratana”), who holds exclusive rights to develop and commercialize ADXS-HER2 and three other *Lm*-LLO immunotherapies for pet health applications. Aratana has announced that a product license application for use of ADXS-HER2 in the treatment of canine osteosarcoma has been filed with the United States Department of Agriculture (“USDA”). Aratana received communication from the USDA in March 2015 stating that the previously submitted efficacy data for product licensure for AT-014 (ADXS-HER2), the cancer immunotherapy for canine osteosarcoma, was accepted and that it provides a reasonable expectation of efficacy that supports conditional licensure. While additional steps need to be completed, including in the areas of manufacturing and safety, Aratana anticipates that AT-014 could receive conditional licensure from the USDA in 2016.

In October of 2015, we received notification from the FDA that the INDs for axalimogene filolisbac were put on clinical hold in response to our submission of a safety report to the FDA. The clinical hold also included the INDs for ADXS-PSA and ADXS-HER2. Following discussions with the FDA and in accordance with their recommendations, we agreed to implement certain risk mitigation measures, including revised study protocol inclusion / exclusion criteria, post-administration antibiotic treatment and patient surveillance and monitoring measures. In December 2015, the FDA notified us that the hold has been lifted with respect to our INDs.

We have focused our development efforts on understanding our platform technology and establishing a drug development pipeline that incorporates this technology into therapeutic cancer immunotherapies, with clinical trials currently targeting HPV-associated cancer (cervical cancer, head and neck cancer and anal cancer), prostate cancer, and HER2-expressing cancers. Although no immunotherapies have been commercialized to date, we continue to invest in research and development to advance the technology and make it available to patients with many different types of cancer. Pipeline development and the further exploration of the technology for advancement entails risk and expense. We anticipate that our ongoing operational costs will increase significantly as we continue conducting and expanding our clinical development program. In addition to our existing single antigen vectors that target one tumor associated antigen, we are actively engaged in the development of new constructs that will address multiple targets that are common to tumor types, as well as mutation-associated neo-epitopes that are specific to an individual patient's tumor. Lastly, we are developing certain internal capabilities to produce supplies for our neoepitope and our other programs.

## **Clinical Pipeline**

We are a clinical-stage biotechnology company focused on the discovery, development and commercialization of proprietary *Lm*-LLO cancer immunotherapies. These immunotherapies are based on a platform technology that utilizes live attenuated *Listeria monocytogenes* bioengineered to secrete antigen/adjuvant fusion proteins. These *Lm*-LLO strains are believed to be a significant advancement in immunotherapy as they integrate multiple functions into a single immunotherapy as they access and direct antigen presenting cells to stimulate anti-tumor T-cell immunity, stimulate and activate the immune system with the equivalent of multiple adjuvants, and simultaneously reduce tumor protection in the tumor microenvironment to enable the T-cells to eliminate tumors.

### *Axalimogene filolisbac Franchise*

Axalimogene filolisbac is an *Lm*-LLO immunotherapy directed against HPV and designed to target cells expressing the HPV. It is currently under investigation or planned investigation in four HPV-associated cancers: cervical cancer, head and neck cancer, anal cancer, and lung cancer, either as a monotherapy or in combination.



Cervical Cancer

There are 527,624 new cases of cervical cancer caused by HPV worldwide every year, and 14,377 new cases in the U.S. alone, according to the WHO Human Papillomavirus and Related Cancers in the World Summary Report 2014 (“WHO”). Current preventative vaccines cannot protect the 20 million women who are already infected with HPV. Challenges with acceptance, accessibility, and compliance have resulted in approximately a third of young women being vaccinated in the United States and even less in other countries around the world.

We completed a randomized Phase 2 clinical study (*Lm-LLO-E7-15*), conducted exclusively in India, in 110 women with recurrent/refractory cervical cancer. The final results were presented at the 2014 American Society of Clinical Oncology (“ASCO”) Annual Meeting, and showed that 32% (35/109) of patients were alive at 12 months, 22% (24/109) of patients were Long-term Survivors (“LTS”) alive greater than 18 months, and 18% (16/91) evaluable with adequate follow-up) of patients were alive for more than 24 months. Of the 109 patients treated in the study, LTS included not only patients with tumor shrinkage but also patients who had experienced stable disease or increased tumor burden. 17% (19/109) of the patients in the trial had recurrence of disease after at least two prior treatments for their cervical cancer; these patients comprised 8% (2/24) of LTS. Among the LTS, 25% (3/12) of patients had a baseline ECOG performance status of 2, a patient population that is often times excluded from clinical trials. Furthermore, a 10% objective response rate (including 5 complete responses and 6 partial responses) and a disease control rate of 38% (42/109) were observed. The addition of cisplatin chemotherapy to axalimogene filolisbac in this study did not significantly improve overall survival or objective tumor response ( $p = 0.9981$ ).

In this study, 109 patients received 254 doses of axalimogene filolisbac. Axalimogene filolisbac was found to be well tolerated with 38% (41/109) of patients experiencing mild to moderate Grade 1 or 2 transient adverse events associated with infusion; 1 patient experienced a Grade 3 Serious Adverse Events (“SAE”). All observed treatment related adverse events either self-resolved or responded readily to symptomatic treatment.

The GOG (now a member of NRG Oncology), under the sponsorship of the Cancer Therapy Evaluation Program (“CTEP”) of the National Cancer Institute (“NCI”), is independently conducting GOG-0265, an open-label, single arm Phase 2 study of axalimogene filolisbac in persistent or recurrent cervical cancer (patients must have received at least 1 prior chemotherapy regimen for the treatment of their recurrent/metastatic disease, not including that administered as a component of primary treatment) at 21 clinical sites in the U.S. The first stage of enrollment in GOG-0265 has successfully been completed with 26 patients treated and has met the predetermined safety and efficacy criteria required to proceed into the second stage of patient enrollment. Clinical data from the first stage of GOG-0265 was presented at the American Gynecological & Obstetrical Society (“AGOS”) annual meeting on September 17, 2015. Overall survival at 12 months was 38.5% (10/26) (the predefined criteria for 12-month survival was  $\geq 20\%$ ), and, among patients who had received the full treatment regimen of 3 doses of axalimogene filolisbac, the 12-month survival rate was 55.6% (10/18). The adverse events observed in the first stage of the study have been consistent with those reported in other clinical studies with axalimogene filolisbac. It was well-tolerated, with Grade 1-2 fatigue, chills, and fever the most commonly reported Adverse Events (“AE”); six patients experienced a treatment-related Grade 3 or Grade 4 AE, which was considered possibly-related to axalimogene filolisbac. The second stage of the study will include approximately 37 additional patients; it has been amended to permit only one prior chemotherapy regimen for the treatment of recurrent/metastatic disease and allows patients to continue to receive repeat cycles of therapy until disease progression.

We have completed an End-of-Phase 2 (“EOP2”) meeting with the FDA. The purpose of the EOP2 meeting was to discuss axalimogene filolisbac preclinical data, Chemistry, Manufacturing and Controls (“CMC”), and clinical program, prior to moving axalimogene filolisbac forward into a registrational trial in cervical cancer. At the meeting, the FDA provided guidance on our CMC activities and clinical development plan. We have submitted our Phase 3 protocol for a Special Protocol Assessment (“SPA”) request to the FDA. The SPA request included specific questions from Advaxis to facilitate a meaningful dialogue with the FDA on the proposed study design. We have received back from FDA initial comments and considerations for incorporation into our study design. Additional rounds of review and/or a formal meeting are anticipated, both of which can extend the review period and be beneficial in reaching agreement with the FDA on design elements. Based on the FDA’s feedback, we may reach final agreement with FDA or may decide to incorporate the advice into the design of the Phase 3 clinical study without undergoing additional rounds of review. FDA’s assessment of the SPA request, and all related feedback, will be very valuable in the development of axalimogene filolisbac. Contingent upon the outcome of the forgoing, we plan to initiate, in collaboration with the GOG/NRG Foundation, Inc., an independent international non-profit organization with the purpose of promoting excellence in the quality and integrity of clinical and basic scientific research in the field of gynecologic malignancies, a registrational clinical trial in cervical cancer in 2016 to support a Biologics License Application (“BLA”) submission in the U.S. and in other territories around the world.

The planned registrational clinical trial will be a Phase 3 study of adjuvant axalimogene filolisbac, following primary treatment with chemoradiation, in patients with high-risk locally advanced cervical cancer compared to placebo alone. This population has a high recurrence rate and, once the disease has recurred, there are currently no available treatments. This study will evaluate both the time it takes for the cancer to recur as well as the overall survival. Our goal is to develop a treatment to prevent or reduce the risk of recurrence of cervical cancer after primary treatment interventions.

Biocon Limited (“Biocon”), our co-development and commercialization partner for axalimogene filolisbac in India and key emerging markets, filed a Marketing Authorization Application (“MAA”) for licensure of this immunotherapy in India. The Drug Controller General of India (“DCGI”) accepted this MAA for review. The filing of the MAA was driven by several factors: i) results from the *Lm*-LLO-E7-15 Phase 2 trial indicated that axalimogene filolisbac was well tolerated and showed significant clinical activity in recurrent/refractory cervical cancer; ii) cervical cancer is the second most common cancer among Indian women (according to WHO, there are 122,844 new cases per year with 67,544 deaths reported); and iii) current treatment options for non-operable refractory/recurrent disease are limited in India. As part of the MAA review process, Biocon met with the Scientific Expert Committee (the “Committee”). The Committee indicated that proof of concept for this novel immunotherapy has been established. The Committee advised Biocon to obtain data from a Phase 3 clinical trial in patients with recurrent cervical cancer who have failed prior chemo and radiation therapy. The face-to-face interaction with the Committee provided Biocon and Advaxis with valuable insight for future development and the companies are evaluating next steps.

We are conducting a Phase 1/2 trial evaluating higher doses and repeat cycles of axalimogene filolisbac in patients with recurrent cervical cancer. This Phase 1/2 study is designed to evaluate the safety, efficacy and immunological effect of the highest-tolerated dose of axalimogene filolisbac administered in repeat cycles to patients with cervical cancer whose disease has recurred after receiving one prior systemic dose cytotoxic treatment regimen. At present, a total of 27 cycles of therapy have been delivered at the  $5 \times 10^9$  CFU dose level and 5 cycles at the high dose of  $1 \times 10^{10}$  CFU, which will now constitute the randomized Phase 2 dose. The AEs observed at the high dose are consistent with previous clinical experience with axalimogene filolisbac.

We have entered into a clinical trial collaboration agreement with MedImmune, the global biologics research and development arm of AstraZeneca, and are conducting a Phase 1/2, open-label, multicenter, two-part study to evaluate the safety and immunogenicity of our investigational *Lm*-LLO cancer immunotherapy, axalimogene filolisbac, in combination with MedImmune’s investigational anti-PD-L1 immune checkpoint inhibitor, durvalumab, as a combination treatment for patients with metastatic squamous or non-squamous carcinoma of the cervix and metastatic HPV-associated Squamous Cell Carcinoma of the Head and Neck (“SCCHN”). For the axalimogene filolisbac and durvalumab dose escalation portion of the study, Cohort 1 has been completed allowing for advancement to the next dose level. Once the dose escalation has been completed, the recommended combination doses will be advanced further into the study.

We have entered into a clinical trial collaboration agreement with Incyte where we plan to conduct a Phase 2, open-label, multicenter study to evaluate the safety and immunogenicity of axalimogene filolisbac as a monotherapy and in combination with Incyte's investigational oral indoleamine 2,3-dioxygenase 1 (IDO1) inhibitor, epacadostat (INCB24360), in patients with Stage I-IIa cervical cancer. Incyte plans to enroll patients in this Phase 2 trial in 2016.

Axalimogene filolisbac has received FDA orphan drug designation for invasive Stage II-IV cervical cancer. (Axalimogene filolisbac was not granted orphan drug designation for cervical cancer in the EMA).

### Head and Neck Cancer

SCCHN is the most frequently occurring malignant tumor of the head and neck and is a major cause of morbidity and mortality worldwide. More than 90% of SCCHNs originate from the mucosal linings of the oral cavity, pharynx, or larynx and 60-80% of these cancers are caused by HPV. According to the American Cancer Society, head and neck cancer accounts for about 3% to 5% of all cancers in the United States with an increasing incidence of HPV-associated head and neck cancers. Approximately 12,000 new cases will be diagnosed in the United States in 2016 according to the Surveillance, Epidemiology, and End Results ("SEER") database.

The safety and immunogenicity of axalimogene filolisbac is being evaluated in a Phase 2 study under an investigator-sponsored IND at Mount Sinai, in patients with HPV-positive head and neck cancer. This clinical trial is the first study to evaluate the effects of axalimogene filolisbac in patients when they are initially diagnosed with HPV-associated head and neck cancer.

As stated above, we have entered into a clinical trial collaboration agreement with MedImmune to collaborate on a Phase 1/2, open-label, multicenter, two part study to evaluate safety and immunogenicity of durvalumab (MEDI4736) in combination with axalimogene filolisbac as a combination treatment for patients with metastatic squamous or non-squamous carcinoma of the cervix and metastatic HPV-associated SCCHN.

Axalimogene filolisbac has received FDA orphan drug designation for HPV-associated head and neck cancer.

### Anal Cancer

According to the American Cancer Society, nearly all squamous cell anal cancers are linked to infection by HPV, the same virus that causes cervical cancer. According to the SEER database, approximately 7,500 new cases will be diagnosed in the United States in 2016.

The safety and efficacy of axalimogene filolisbac is being evaluated in a Phase 2 study under an investigator-sponsored IND by Brown University in patients with high-risk locally advanced anal cancer. Preliminary data indicates all patients who have completed the treatment regimen have experienced a six-month complete response, with no disease recurrence. In consideration of these preliminary data, the investigator at Brown University is evaluating the opportunity to transition this study into a NCI-funded cooperative group trial to evaluate the safety and efficacy of axalimogene filolisbac in a pivotal Phase 2/3 anal cancer trial, to be conducted by NRG Oncology. In advance of the foregoing, we have entered into a clinical trial collaboration agreement with the Radiation Therapy Oncology Group (“RTOG”) Foundation for the conduct of such study.

We plan to enroll patients in a Company sponsored Phase 2 study in patients with persistent/recurrent, loco-regional or metastatic squamous cell carcinoma of the anorectal canal in 2016.

Axalimogene filolisbac has received FDA and EMA orphan drug designation for anal cancer.

### Lung Cancer

Lung cancer is the leading cause of cancer death in Taiwan, China, and worldwide. Histologically, Non-Small Cell Lung Cancer (“NSCLC”), including squamous cell carcinoma, adenocarcinoma, and large cell carcinoma, comprises more than 80% of lung cancers. Cigarette smoking is the primary risk factor and accounts for approximately 85% of all lung cancer cases. For those who have never smoked, HPV infection is considered to be an important cause of lung cancer in Asia. In a recent international pooled analysis of data on HPV-associated lung cancers, the prevalence in Asia was found to be 5% of all lung cancers.

GBP, our development and commercialization partner in Asia, is planning to conduct a randomized Phase 2, open-label, controlled study in HPV-associated NSCLC in patients following first-line induction chemotherapy. Pending Taiwanese FDA approval, the study is planned to initiate in 2016 and will enroll up to 124 patients. This trial will be fully funded exclusively by GBP.

### *ADXS-PSA Franchise*

#### Prostate Cancer

According to the American Cancer Society, prostate cancer is the second most common type of cancer found in American men. Prostate cancer is the second leading cause of cancer death in men, behind only lung cancer. One man in seven will get prostate cancer during his lifetime, and one man in 36 will die of this disease. About 210,000 new cases will be diagnosed in the United States in 2016 according to the SEER database.

ADXS-PSA is an *Lm-LLO* immunotherapy designed to target the PSA antigen commonly overexpressed in prostate cancer.

We have entered into a clinical trial collaboration and supply agreement with Merck to evaluate the safety and efficacy of ADXS-PSA as monotherapy and in combination with KEYTRUDA® (pembrolizumab), Merck's anti PD-1 antibody, in a Phase 1/2, open-label, multicenter, two part study in patients with previously treated metastatic, castration-resistant prostate cancer. For ADXS-PSA monotherapy dose escalation portion of the study, Cohort 1 and Cohort 2 have been completed allowing for advancement into Cohort 3, the third and final dose level. Once the dose escalation has been completed, the recommended dose will be advanced into the combination portion of the study.

### *ADXS-HER2 Franchise*

#### HER2 Expressing Solid Tumors

HER2 is overexpressed in a percentage of solid tumors such as breast, gastric, bladder, brain, pancreatic, ovarian and osteosarcoma. According to the SEER database and recent published literature, the percentage of HER2 expression varies by cancer type, with approximately 70,000 new cases of invasive HER2 positive breast cancer diagnosed each year in the US; approximately 5,000 new cases of HER2 positive gastric cancer; approximately 22,000 new cases of HER2 positive bladder cancer; approximately 20,000 new cases of HER2 positive pancreatic cancer; approximately 2,500 new cases of HER2 positive ovarian cancer; and approximately 600 new cases of HER2 positive osteosarcoma.

ADXS-HER2 is an *Lm-LLO* immunotherapy designed to target HER2 expressing solid tumors such as human and canine osteosarcoma, breast, gastric and other cancers. The FDA has cleared our IND application and we have

initiated a Phase 1b study in patients with metastatic HER2-expressing cancers. Thereafter, we intend to initiate a clinical development program with ADXS-HER2 for the treatment of pediatric osteosarcoma.

### Osteosarcoma

Osteosarcoma affects about 400 children and teens in the U.S. every year, representing a small but significant unmet medical need that has seen little therapeutic improvement in decades. Osteosarcoma is considered a rare disease and may qualify for regulatory incentives including, but not limited to, orphan drug designation, patent term extension, market exclusivity, and development grants. Given the limited availability of new treatment options for osteosarcoma, and that it is an unmet medical need affecting a very small number of patients in the U.S. annually, we believe that, subject to regulatory approval, the potential to be on the market may be accelerated.

Based on encouraging data discussed below from a veterinarian clinical study in which pet dogs with naturally occurring osteosarcoma were treated with ADXS-HER2, we intend to initiate a clinical development program with ADXS-HER2 for the treatment of human osteosarcoma. Both veterinary and human osteosarcoma specialists consider canine osteosarcoma to be the best model for human osteosarcoma.

ADXS-HER2 has received FDA and EMA orphan drug designation for osteosarcoma.

### Canine Osteosarcoma

Osteosarcoma is the most common primary bone tumor in dogs, accounting for roughly 85% of tumors on the canine skeleton. Approximately 10,000 dogs a year (predominately middle to older-aged dogs and larger breeds) are diagnosed with osteosarcoma in the United States. This cancer initially presents as lameness and oftentimes visible swelling on the leg. Current standard of care treatment is amputation immediately after diagnosis, followed by chemotherapy. Median survival time with standard of care is ten to twelve months. For dogs that cannot undergo amputation, palliative radiation and analgesics are frequently employed and median survival times range from three to five months.

Under the direction of Dr. Nicola Mason, the University of Pennsylvania School of Veterinary Medicine is conducting studies in companion dogs evaluating the safety and efficacy of ADXS-HER2 in the treatment of naturally occurring canine osteosarcoma. In the initial study, the primary endpoint was to determine the maximum tolerated dose of ADXS-HER2. Secondary endpoints for the study were progression-free survival and overall survival. The findings of the Phase 1 clinical trial in dogs with osteosarcoma suggest that ADXS-HER2 is safe and well tolerated at doses up to  $3 \times 10^9$  CFU with no evidence of significant cardiac, hematological, or other systemic toxicities. The study determined that ADXS-HER2 is able to delay or prevent metastatic disease and significantly prolong overall survival in dogs with osteosarcoma that had minimal residual disease following standard of care (amputation and follow-up chemotherapy). Dr. Mason presented data at the 2014 American College of Veterinary Internal Medicine (“ACVIM”) Forum which showed that 80% of the dogs treated (n=15) were still alive and median survival had not yet been reached. A second study is currently being conducted by Dr. Mason and data was presented at the 2015 ACVIM Forum obtained from pet dogs (n=12) with primary osteosarcoma unsuitable for amputation. Repeat doses of ADXS-HER2 administered after palliative radiation were well tolerated with no systemic or cardiac toxicity.

On March 19, 2014, we entered into a definitive Exclusive License Agreement with Aratana, where we granted Aratana an exclusive, worldwide, royalty-bearing license, with the right to sublicense, certain of our proprietary technology that enables Aratana to develop and commercialize animal health products that will be targeted for treatment of osteosarcoma and other cancer indications in animals. A product license request has been filed by Aratana for ADXS-HER2 (also known as AT-014 by Aratana) for the treatment of canine osteosarcoma with the USDA. Aratana received communication from the USDA in March 2015 stating that the previously submitted efficacy data for product licensure for AT-014 (ADXS-HER2), the cancer immunotherapy for canine osteosarcoma, was accepted and that it provides a reasonable expectation of efficacy that supports conditional licensure. While additional steps need to be completed, including in the areas of manufacturing and safety, Aratana anticipates that AT-014 could receive conditional licensure from the USDA in 2016. Aratana has been granted exclusive worldwide rights by us to develop and commercialize ADXS-HER2 in animals. Aratana is further responsible for the conduct of clinical research with ADXS-Survivin in canine/feline lymphoma, as well as pending investigations of two additional Advaxis constructs in animals.

#### *ADXS-NEO Franchise (preclinical)*

We intend to file an IND application for ADXS-NEO and to initiate Company-sponsored studies, as well as external collaborations.

We have entered into a research collaboration with Memorial Sloan Kettering Cancer Center (“MSK”) to advance the study of neoepitope-based, personalized cancer therapy. The goal of the collaboration, titled “MINE™” (My Immunotherapy Neo-Epitopes), is to use our *Lm*-LLO cancer immunotherapy technology to develop neo-epitope immunotherapies based on an individual patient’s tumor (“ADXS-NEO”). MINE™ will first focus on a preclinical study of our new construct approach to evaluate the immunologic effects and anti-tumor activity of a personalized immunotherapy in a mouse tumor model. We will use learnings from the MINE™ collaboration to identify and target neoepitopes using *Lm*-LLO technology and later develop patient specific immunotherapy constructs that incorporate



the neoepitope sequences identified in the patient's tumor cells. Clinical studies using ADXS-NEO, to be conducted at MSK, are in development.

#### *ADXS-TNBC Franchise (preclinical)*

We are developing a construct that targets antigens specific to Triple-Negative Breast Cancer ("TNBC"), which accounts for ~15-20% of all diagnosed breast cancer cases and has not been amenable to targeted therapies directed toward estrogen, progesterone, or HER2 receptors. A majority of TNBC patients' still exhibit poor outcomes, with only 30-45% of patients achieving a pathological complete response from conventional chemotherapeutic and radiation therapy. The heterogeneous nature of this cancer type, the presence of mutations in multiple pathways, and the development of resistance to single agents make combination therapy much more attractive and suggest the need for agents that address more than one antigen/target.

#### *Lm-LLO Combination Franchise*

##### Axalimogene filolisbac and Durvalumab

As stated above, we have entered into a clinical trial collaboration agreement with MedImmune to conduct a Phase 1/2, open-label, multicenter, two part study to evaluate safety and immunogenicity of our investigational *Lm-LLO* cancer immunotherapy, axalimogene filolisbac, in combination with MedImmune's investigational anti-PD-L1 immune checkpoint inhibitor, durvalumab (MEDI4736) for the treatment of patients with metastatic squamous or non-squamous carcinoma of the cervix and metastatic HPV-associated SCCHN. Preliminary patient responses have been observed in Cohort 1. For the axalimogene filolisbac and durvalumab (MEDI4736) dose escalation portion of the study, Cohort 1 has been completed allowing for advancement to the next dose level. Once the dose escalation has been completed, the recommended combination doses will be advanced further into the study.

##### Axalimogene filolisbac and Epcadostat

As stated above, we have entered into a clinical trial collaboration agreement with Incyte where we plan to collaborate on a Phase 2, open-label, multicenter, preoperative window-study to evaluate the safety and immunogenicity of axalimogene filolisbac as a monotherapy and in combination with Incyte's investigational oral indoleamine 2,3-dioxygenase 1 (IDO1) inhibitor, epcadostat (INCB24360), in patients with Stage I-IIa cervical cancer. Incyte plans to enroll patients in this Phase 2 in 2016.

##### ADXS-PSA and KEYTRUDA® (pembrolizumab)

As stated above, we have entered into a clinical trial collaboration agreement with Merck to evaluate the safety and efficacy of ADXS-PSA as monotherapy and in combination with KEYTRUDA® (pembrolizumab), Merck's anti PD-1 antibody, in a Phase 1/2, open-label, multicenter, two part study in patients with previously treated metastatic, castration-resistant prostate cancer. For the ADXS-PSA monotherapy dose escalation portion of the study, Cohort 1 and Cohort 2 have been completed allowing for advancement to next dose level. Once the dose escalation has been completed, the recommended dose will be advanced into the combination portion of the study.

#### *Lm-LLO Immunotherapy and Sorrento*

We have entered into a non-exclusive research and clinical trial collaboration agreement with Sorrento Therapeutics, Inc. ("Sorrento") to evaluate our *Lm-LLO* cancer immunotherapy technology in combination with Sorrento's fully human antibodies, which may include GITR, OX40, LAG-3 and/or TIM-3, in two clinical trials.

### Lm-LLO Immunotherapy (preclinical)

We have various preclinical collaborations with academic and other centers of excellence.

## **Corporate Information**

We were originally incorporated in the State of Colorado on June 5, 1987 under the name Great Expectations, Inc. We were a publicly-traded “shell” company without any business until November 12, 2004 when we acquired Advaxis, Inc., a Delaware corporation, through a Share Exchange and Reorganization Agreement, dated as of August 25, 2004, which we refer to as the Share Exchange, by and among Advaxis, the stockholders of Advaxis and us. As a result of the Share Exchange, Advaxis became our wholly-owned subsidiary and our sole operating company. On December 23, 2004, we amended and restated our articles of incorporation and changed our name to Advaxis, Inc. On June 6, 2006, our stockholders approved the reincorporation of our company from Colorado to Delaware by merging the Colorado entity into our wholly-owned Delaware subsidiary. Our date of inception, for financial statement purposes, is March 1, 2002.

Our principal executive offices are located at 305 College Road East, Princeton, New Jersey 08540 and our telephone number is (609) 452-9813. We maintain a website at [www.advaxis.com](http://www.advaxis.com) which contains descriptions of our technology, our product candidates and the trial status of each drug. We make available free of charge through our Internet website our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and any amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC. We are not including the information on our website as a part of, nor incorporating it by reference into, this report. You may read and copy any materials we file at the SEC’s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 on official business days during the hours of 10:00 a.m. to 3:00 p.m. Please call the SEC at 1-800-SEC-0330 for information on the Public Reference Room. Additionally, the SEC maintains a website that contains annual, quarterly, and current reports, proxy statements, and other information that issuers (including us) file electronically with the SEC. The SEC’s website address is <http://www.sec.gov>.

## **Intellectual Property**

Protection of our intellectual property is important to our business. We have a robust and extensive patent portfolio that protects our product candidates and Lm -based immunotherapy technology. Currently, we own or have rights to 200 patents and applications, which are owned, licensed from, or co-owned with Penn, Merck, NIH, and/or Georgia Regents University. We continuously grow this portfolio by filing new applications to protect our ongoing research and development efforts. We aggressively prosecute and defend our patents and proprietary technology. Our patents

are directed to the compositions of matter, use, and methods thereof, of our Lm -LLO immunotherapies for our product candidates, axalimogene filolisbac, ADXS-PSA, and ADXS-HER2.

Our approach to the intellectual property portfolio is to create, maintain, protect, enforce and defend our proprietary rights for the products we develop from our immunotherapy technology platform. We endeavor to maintain a coherent and aggressive strategic approach to building our patent portfolio with an emphasis in the field of cancer vaccines.

We successfully defended our intellectual property concerning our Lm -based technology by contesting a challenge made by Anza Therapeutics, Inc. (now known as Aduro BioTech), to our patent position in Europe on a claim not available in the United States. The European Patent Office (“EPO”) Board of Appeals in Munich, Germany ruled in favor of the Trustees of Penn and us, Penn’s exclusive licensee, and reversed a patent ruling that revoked a technology patent that had resulted from an opposition filed by Anza. The ruling of the EPO Board of Appeals is final and cannot be appealed. The granted claims, the subject matter of which was discovered by Dr. Yvonne Paterson, are directed to the method of preparation and composition of matter of recombinant bacteria expressing tumor antigens for the treatment of patients with cancer. The successful development of our immunotherapies will include our ability to create and maintain intellectual property related to our product candidates.

Issued patents which are directed to our product candidates axalimogene filolisbac, ADXS-PSA, and ADVX-HER2 in the United States, will expire between 2017 and 2032. Issued patents directed to our product candidates axalimogene filolisbac, ADXS-PSA, and ADXS-HER2 outside of the United States, will expire in 2028. Issued patents directed to our Lm -based immunotherapy platform in the United States, will expire between 2016 and 2030. Issued patents directed to our Lm -based immunotherapy platform outside of the United States, will expire between 2021 and 2030.

We have issued patents directed to methods of using our product candidates axalimogene filolisbac, ADXS-PSA and ADXS-HER2 in the United States, which will expire between 2017 and 2032. Issued patents directed to use of our product candidates: axalimogene filolisbac, ADXS-PSA and ADXS-HER2 for indications outside of the United States, will expire between 2018 and 2028.

We have pending patent applications directed to our product candidates axalimogene filolisbac, ADXS-PSA, ADXS-HER2 that, if issued would expire in the United States and in countries outside of the United States between 2020 and 2037. We have pending patent applications directed to methods of using of our product candidates axalimogene filolisbac, ADXS-PSA, ADXS-HER2 directed to the following indications: a her2/neu-expressing cancer, a prostate cancer, cervical dysplasia, and cervical cancer that, if issued would expire in the United States and in countries outside of the United States between 2020 and 2037, depending on the specific indications.

We will be able to protect our technology from unauthorized use by third parties only to the extent it is covered by valid and enforceable patents or is effectively maintained as trade secrets. Patents and other proprietary rights are an essential element of our business.

Our success will depend in part on our ability to obtain and maintain proprietary protection for our product candidates, technology, and know-how, to operate without infringing on the proprietary rights of others, and to prevent others from infringing our proprietary rights. Our policy is to seek to protect our proprietary position by, among other methods, filing U.S. and foreign patent applications related to our proprietary technology, inventions, and improvements that are important to the development of our business. We also rely on trade secrets, know-how, continuing technological innovation, and in-licensing opportunities to develop and maintain our proprietary position.

Any patent applications which we have filed or will file or to which we have or will have license rights may not issue, and patents that do issue may not contain commercially valuable claims. In addition, any patents issued to us or our licensors may not afford meaningful protection for our products or technology, or may be subsequently circumvented, invalidated, narrowed, or found unenforceable. Our processes and potential products may also conflict with patents which have been or may be granted to competitors, academic institutions or others. As the pharmaceutical industry expands and more patents are issued, the risk increases that our processes and potential products may give rise to interferences filed by others in the U.S. Patent and Trademark Office, or to claims of patent infringement by other companies, institutions or individuals. These entities or persons could bring legal actions against us claiming damages and seeking to enjoin clinical testing, manufacturing and marketing of the related product or process. In recent years, several companies have been extremely aggressive in challenging patents covering pharmaceutical products, and the challenges have often been successful. If any of these actions are successful, in addition to any potential liability for damages, we could be required to cease the infringing activity or obtain a license in order to continue to manufacture or market the relevant product or process. We may not prevail in any such action and any license required under any such patent may not be made available on acceptable terms, if at all. Our failure to successfully defend a patent challenge or to obtain a license to any technology that we may require to commercialize our technologies or potential products could have a materially adverse effect on our business. In addition, changes in either patent laws or in interpretations of patent laws in the United States and other countries may materially diminish the value of our intellectual property or narrow the scope of our patent protection.

We also rely upon unpatented proprietary technology, and in the future may determine in some cases that our interests would be better served by reliance on trade secrets or confidentiality agreements rather than patents or licenses. We may not be able to protect our rights to such unpatented proprietary technology and others may independently develop substantially equivalent technologies. If we are unable to obtain strong proprietary rights to our processes or products after obtaining regulatory clearance, competitors may be able to market competing processes and products.

Others may obtain patents having claims which cover aspects of our products or processes which are necessary for, or useful to, the development, use or manufacture of our services or products. Should any other group obtain patent protection with respect to our discoveries, our commercialization of potential therapeutic products and methods could be limited or prohibited.

## The Drug Development Process

The product candidates in our pipeline are at various stages of preclinical and clinical development. The path to regulatory approval includes multiple phases of clinical trials in which we collect data to support an application to regulatory authorities to allow us to market a product for the diagnosis, cure, mitigation, treatment, or prevention of a specified disease. There are many difficulties and uncertainties inherent in research and development of new products, resulting in a high rate of failure. To bring a drug from the discovery phase to regulatory approval, and ultimately to market, takes many years and significant costs.

Clinical testing, known as clinical trials or clinical studies, is either conducted internally by a pharmaceutical or biotechnology company or is conducted on behalf of these companies by Clinical Research Organizations (“CRO”). The process of conducting clinical studies is highly regulated by the FDA, as well as by other governmental and professional bodies. In a clinical trial, participants receive specific interventions according to the research plan or protocol created by the investigators. Clinical trials may compare a new medical approach to a standard one that is already available or to a placebo that contains no active ingredients or to no intervention. Some clinical trials compare interventions that are already available to each other. When a new product or approach is being studied, it is not usually known whether it will be helpful, harmful, or no different than available alternatives. The investigators try to determine the safety and efficacy of the intervention by measuring certain outcomes in the participants.

*Phase 1.* Phase 1 clinical trials begin when regulatory agencies allow initiation of clinical investigation of a new drug or product candidate. They typically involve testing an investigational new drug on a limited number of patients. Phase 1 studies determine a drug’s basic safety, maximum tolerated dose and how the drug is absorbed by, and eliminated from, the body. Typically, cancer therapies are initially tested on late stage cancer patients.

*Phase 2.* Phase 2 clinical trials involve larger numbers of patients that have been diagnosed with the targeted disease or condition. Phase 2 clinical trials gather preliminary data on effectiveness (where the drug works in people who have a certain disease or condition) and to determine the common short-term side effects and risks associated with the drug. If Phase 2 clinical trials show that an investigational new drug has an acceptable range of safety risks and probable effectiveness, a company will continue to evaluate the investigational new drug in Phase 3 studies.

*Phase 3.* Phase 3 clinical trials are typically controlled multi-center trials that involve a larger number of patients to ensure the study results are statistically significant. The purpose is to confirm effectiveness and safety on a large scale and to provide an adequate basis for physician labeling. These trials are generally global in nature and are designed to generate clinical data necessary to submit an application for marketing approval to regulatory agencies.

*Biologic License Application (BLA)*. The results of the clinical trials using biologics are submitted to the FDA as part of a BLA. Following the completion of Phase 3 studies, if the Sponsor of a potential product in the United States believes it has sufficient information to support the safety and effectiveness of the investigational new drug, the Sponsor submits a BLA to the FDA requesting that the investigational new drug be approved for sale. The application is a comprehensive, multi-volume filing that includes the results of all preclinical and clinical studies, information about the drug's composition, and the Sponsor's plans for manufacturing, packaging, labeling and testing the investigational new drug. The FDA's review of an application is designated either as a standard review with a target review time of 10 months or a priority review with a target of 6 months. Depending upon the completeness of the application and the number and complexity of follow-up requests and responses between the FDA and the Sponsor, the review time can take months to many years. Once approved through this process, a drug may be marketed in the United States, subject to any conditions imposed by the FDA.



The current state of development of our candidates in various areas are outlined in the following table:

## **Government Regulations**

### *General*

Government authorities in the United States and other countries extensively regulate, among other things, the preclinical and clinical testing, manufacturing, labeling, storage, record-keeping, advertising, promotion, export, marketing and distribution of biologic products. In the United States, the FDA subjects pharmaceutical and biologic products to rigorous review under the Federal Food, Drug and Cosmetic Act, the Public Health Service Act and other federal statutes and regulations.

### *Orphan Drug Designation*

Under the Orphan Drug Act (“ODA”), the FDA may grant Orphan Drug Designation (“ODD”) to a drug or biological product intended to treat a rare disease or condition, which means a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States, but for which there is no reasonable expectation that the cost of developing and making a drug or biological product available in the United States will be recovered from domestic sales of the product.

The benefits of ODD can be substantial, including research and development tax credits and exemption from user fees, enhanced access to advice from the FDA while the drug is being developed, and market exclusivity once the product reaches approval and begins sales, provided that the new product is first to market and that this new product has not been previously approved for the same orphan disease or condition, with or without orphan drug designation. In order to qualify for these incentives, a company must apply for designation of its product as an “Orphan Drug” and obtain approval from the FDA. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process. A drug that is approved for the ODD indication is granted seven years of orphan drug exclusivity. During that period, the FDA generally may not approve any other application for the same product for the same indication, although there are exceptions, most notably when the later product is shown to be clinically superior to the product with exclusivity.

We currently have ODD with the FDA for axalimogene filolisbac for treatment of anal cancer (granted August 2013), HPV-associated head and neck cancer (granted November 2013); and treatment of Stage II-IV invasive cervical cancer (granted May 2014). We also have ODD with the FDA for ADXS-HER2 for the treatment of osteosarcoma (granted May 2014).

In Europe, the Committee for Orphan Medicinal Products (“COMP”) issued a positive opinion on the application for ODD of axalimogene filolisbac for the treatment of anal cancer (December 2015) and on the application for ODD of ADXS-HER2 for osteosarcoma (November 2015).

#### *Expedited Programs for Serious Conditions*

Four FDA programs are intended to facilitate and expedite development and review of new drugs to address unmet medical need in the treatment of serious or life-threatening conditions: fast track designation, breakthrough therapy designation, accelerated approval, and priority review designation. We intend to avail ourselves of any and all of these programs as applicable to our products.

#### *Non-U.S. Regulation*

Before our products can be marketed outside the United States, they are subject to regulatory approval of the respective authorities in the country in which the product should be marketed. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country. No action can be taken to market any product in a country until an appropriate application has been approved by the regulatory authorities in that country. The time spent in gaining approval varies from that required for FDA approval, and in certain countries, the sales price of a product must also be approved. The pricing review period often begins after market approval is granted. Even if a product is approved by a regulatory authority, satisfactory prices might not be approved for such product.

### **Collaborations, Partnerships and Agreements**

#### *Biocon Limited*

On January 20, 2014, we entered into a Distribution and Supply Agreement (“Biocon Agreement”) with Biocon Limited, a company incorporated under the laws of India.

Pursuant to the Biocon Agreement, we granted Biocon an exclusive license (with a right to sublicense) to (i) use our data from clinical development activities, regulatory filings, technical, manufacturing and other information and know-how to enable Biocon to submit regulatory filings for axalimogene filolisbac in the following territories: India,

Malaysia, Bangladesh, Bhutan, Maldives, Myanmar, Nepal, Pakistan, Sri Lanka, Bahrain, Jordan, Kuwait, Oman, Saudi Arabia, Qatar, United Arab Emirates, Algeria, Armenia, Egypt, Eritrea, Iran, Iraq, Lebanon, Libya, Sudan, Syria, Tunisia and Yemen (collectively, the “Territory”) and (ii) import, promote, market, distribute and sell pharmaceutical products containing axalimogene filolisbac . Axalimogene filolisbac is based on a novel platform technology using live, attenuated bacteria that are bio-engineered to secrete an antigen/adjuvant fusion protein(s) that is designed to redirect the powerful immune response all human beings have to the bacterium against their cancer.

Under the Biocon Agreement, Biocon has agreed to use its commercially reasonable efforts to obtain regulatory approvals for axalimogene filolisbac in India. In the event Phase 2 or Phase 3 clinical trials are required, we shall conduct such trials at our cost, provided that if we are unable to commence such clinical trials, Biocon may conduct such clinical trials, subject to reimbursement of costs by us. Biocon has agreed to commence commercial distribution of axalimogene filolisbac no later than 9 months following receipt of regulatory approvals in a country in the Territory. Biocon will be responsible for the costs of obtaining and maintaining regulatory approvals in the Territory.

We will have the exclusive right to supply axalimogene filolisbac to Biocon and Biocon will be required to purchase its requirements of axalimogene filolisbac exclusively from us at the specified contract price, as such price may be adjusted from time to time. The supply price agreed upon between the parties will be correlated to the net sales of the product during the preceding contract year. In addition, we will be entitled to a six-figure milestone payment if net sales of axalimogene filolisbac for the contract year following the initiation of clinical trials in India exceed certain specified thresholds.

Biocon will also have a right of first refusal relating to the licensing of any new products in the Territory that we may develop during the term of the Biocon Agreement.

The term of the Biocon Agreement will be the later of twenty years or the last to expire patent or patent application. In addition, the Biocon Agreement may be terminated by either party upon thirty days’ written notice (i) in the event of a material breach by the other party of its obligations under the Biocon Agreement, (ii) if the other party becomes bankrupt or insolvent or (iii) if the other party undergoes a change in control.

Biocon filed a MAA for licensure of this immunotherapy in India. The DCGI accepted this MAA for review. The filing of the MAA was driven by several factors: i) results from the *Lm* -LLO-E7-15 Phase 2 trial indicated that axalimogene filolisbac was well tolerated and showed significant clinical activity in recurrent/refractory cervical cancer; ii) cervical cancer is the second most common cancer among Indian women (132,000 new cases per year with 74,000 deaths reported); and iii) current treatment options for non-operable refractory/recurrent disease are limited in India. As part of the MAA review process, Biocon met with the Scientific Expert Committee (the “Committee”). The Committee indicated that proof of concept for this novel immunotherapy has been established. The Committee advised Biocon to obtain data from a Phase 3 clinical trial in patients with recurrent cervical cancer who have failed prior chemo and radiation therapy. The face-to-face interaction with the Committee provided Biocon and Advaxis with valuable insight for future development. We continue to assist Biocon with the activities necessary to develop and ultimately commercialize axalimogene filolisbac in the Territory.



*Global BioPharma, Inc.*

On December 9, 2013, we entered into an exclusive licensing agreement for the development and commercialization of axalimogene filolisbac with Global BioPharma, Inc. (“GBP”), a Taiwanese based biotech company funded by a group of investors led by Taiwan Biotech Co., Ltd (TBC).

GBP plans to conduct registration trials with axalimogene filolisbac for the treatment of advanced cervical cancer. GBP is also planning to conduct a randomized Phase 2, open-label, controlled study in HPV-associated NSCLC in patients following first-line induction chemotherapy. Pending Taiwanese FDA approval, the study is planned to initiate in 2016 and will enroll up to 124 patients. This trial will be fully funded by GBP. GBP will continue to explore the use of our lead product candidate in several other indications including head and neck, and anal cancer.

GBP will pay us event-based financial milestones, an annual development fee, and annual net sales royalty payments in the high single to double digits. In addition, as an upfront payment, GBP made an investment in us by purchasing shares of our Common Stock (“Common Stock”) at market price. GBP has an option to purchase additional shares of our stock at a 150% premium to the stock price on the effective date of the agreement.

GBP will be responsible for all clinical development and commercialization costs in the GBP territory. GBP will also reimburse us \$2.25 million toward our U.S. registrational study, where such payment will help to offset our development costs. GBP is committed to establishing manufacturing capabilities for its own territory and to serving as a secondary manufacturing source for us in the future. Under the terms of the agreement, we will exclusively license the rights of axalimogene filolisbac to GBP for the Asia, Africa, and former USSR territory, exclusive of India and certain other countries, for all HPV-associated indications. We will retain exclusive rights to axalimogene filolisbac for the rest of the world.

*University of Pennsylvania*

On July 1, 2002 we entered into an exclusive worldwide license agreement with Penn with respect to the innovative work of Yvonne Paterson, Ph.D., Associate Dean for Research at the School of Nursing at Penn, and former Professor of Microbiology at Penn, in the area of innate immunity, or the immune response attributed to immune cells, including dendritic cells, macrophages and natural killer cells, that respond to pathogens non-specifically (subject to certain U.S. government rights). This agreement was amended and restated as of February 13, 2007, and, thereafter, has been amended from time to time.

This license, unless sooner terminated in accordance with its terms, terminates upon the latter of (a) the expiration of the last to expire of the Penn patent rights; or (b) twenty years after the effective date of the license. Penn may terminate the license agreement early upon the occurrence of certain defaults by us, including, but not limited to, a material breach by us of the Penn license agreement that is not cured within 60 days after notice of the breach is provided to us.

The license provides us with the exclusive commercial rights to the patent portfolio developed by Penn as of the effective date of the license, in connection with Dr. Paterson and requires us to pay various milestone, legal, filing and licensing payments to commercialize the technology. In exchange for the license, Penn received shares of our Common Stock. However, as of October 31, 2015, Penn does not own shares of our Common Stock. In addition, Penn is entitled to receive a non-refundable initial license fee, royalty payments and milestone payments based on net sales and percentages of sublicense fees and certain commercial milestones. Under the amended licensing agreement, Penn is entitled to receive 2.5% of net sales in the territory. Should annual net sales exceed \$250 million, the royalty rate will increase to 2.75%, but only with respect to those annual net sales in excess of \$250 million. Additionally, Penn will receive tiered sales milestone payments upon the achievement of cumulative global sales ranging between \$250 million and \$2 billion, with the maximum aggregate amounts payable to Penn in the event that maximum sales milestones are achieved is \$40 million. Notwithstanding these royalty rates, upon first in-human commercial sale (U.S. & E.U.), we have agreed to pay Penn a total of \$775,000 over a four-year period as an advance minimum royalty, which shall serve as an advance royalty in conjunction with the above terms. In addition, under the license, we are obligated to pay an annual maintenance fee of \$100,000 commencing on December 31, 2010, and each December 31st thereafter for the remainder of the term of the agreement until the first commercial sale of a Penn licensed product. We are responsible for filing new patents and maintaining and defending the existing patents licensed to us and we are obligated to reimburse Penn for all attorney's fees, expenses, official fees and other charges incurred in the preparation, prosecution and maintenance of the patents licensed from Penn.

Upon first regulatory approval in humans (US or EU), Penn will be entitled to a milestone payment of \$600,000. Furthermore, upon the achievement of the first sale of a product in certain fields, Penn will be entitled to certain milestone payments, as follows: \$2.5 million will be due upon the first in-human commercial sale (US or EU) of the first product in the cancer field and \$1.0 million will be due upon the date of first in-human commercial sale (US or EU) of a product in each of the secondary strategic fields sold.

As of October 31, 2015, we had no outstanding balance with Penn under all licensing agreements.

*Merck & Co., Inc.*

On August 22, 2014, we entered into a Clinical Trial Collaboration and Supply Agreement (the “Merck Agreement”) with Merck, pursuant to which the parties will collaborate on a Phase 1/2 dose-escalation and safety study. The Phase 1 portion of the study will evaluate the safety of our *Lm*-LLO based immunotherapy for prostate cancer, ADXS31-142 (the “Advaxis Compound”) as monotherapy and in combination with KEYTRUDA® (pembrolizumab), Merck’s humanized monoclonal antibody against PD-1 (the “Merck Compound”), to determine a recommended Phase 2 combination dose. The Phase 2 portion will evaluate the safety and efficacy of the Advaxis Compound in combination with the Merck Compound. Both phases of the study will be in patients with previously treated metastatic castration-resistant prostate cancer. A joint development committee, comprised of equal representatives from both parties, is responsible for coordinating all regulatory and other activities under, and pursuant to, the Merck Agreement.

Each party is responsible for their own internal costs and expenses to support the study, while we will be responsible for all third party costs of conducting the study. Merck will be responsible for manufacturing and supplying the Merck Compound. We will be responsible for manufacturing and supplying the Advaxis Compound. We will be the sponsor of the study and hold the IND related to the study.

All data and results generated under the study (“Collaboration Data”) will be jointly owned by the parties, except that ownership of data and information generated from sample analysis to be performed by each party on its respective compound will be owned by the party conducting such testing. All rights to all inventions and discoveries, which claim or cover the combined use of the Advaxis Compound and the Merck Compound shall belong jointly to the parties. Inventions and discoveries relating solely to the Advaxis Compound, or a live attenuated bacterial vaccine, shall be the exclusive property of us. Inventions and discoveries relating solely to the Merck Compound, or a PD-1 antagonist, shall be the exclusive property of Merck.

The Merck Agreement shall continue in full force and effect until completion of all of the obligations of the parties or a permitted termination.

*MedImmune/AstraZeneca*

On July 21, 2014, we entered into a Clinical Trial Collaboration Agreement (the “MedImmune Agreement”) with MedImmune, the global biologics research and development arm of AstraZeneca, pursuant to which the parties intend to initiate a Phase 1/2 clinical study in the United States to evaluate the safety and efficacy of MedImmune’s investigational anti-PD-L1 immune checkpoint inhibitor, MEDI4736, in combination with our investigational *Lm*-LLO cancer immunotherapy, axalimogene filolisbac, as a combination treatment for patients with advanced,



recurrent or refractory cervical cancer and HPV-associated head and neck cancer. A joint steering committee, composed of equal representatives from both parties, is responsible for various matters associated with the collaboration, including protocol approval, as well as reviewing and monitoring the progress of the study.

MedImmune will be responsible for providing MEDI4736 at no cost, as well as costs related to the proprietary assays performed by MedImmune or a third party on behalf of MedImmune. We will be the sponsor of the study and be responsible for the submission of all regulatory filings to support the study, the negotiation and execution of the clinical trial agreements associated with each study site, and the packaging and labelling of the Advaxis and MedImmune product candidates to be used in the study and the costs associated therewith.

For a period beginning upon the completion of the study and the receipt by MedImmune of the last final report for the study and ending one hundred twenty (120) days thereafter (unless extended), MedImmune will be granted first right to negotiate in good faith in an attempt to enter into an agreement with us with respect to the development, regulatory approval and commercialization of axalimogene filolisbac and MEDI4736 to be used in combination with each other for the treatment or prevention of cancer. Neither party is obligated to enter into such an agreement. In the event the parties do not enter an agreement and we obtain regulatory approval for axalimogene filolisbac in combination with any PD-1 antibody or PD-L1 antibody, we shall pay MedImmune a royalty obligation and one-time payment.

All intellectual property rights made, conceived or generated through the clinical trials that relate solely to a MedImmune development product shall be owned solely by MedImmune. All intellectual property rights made, conceived or generated through the clinical trials that relate solely to an Advaxis development product shall be owned solely by us. All intellectual property rights made, conceived or generated through the clinical trials that relate to the combination of one or more MedImmune development product and one or more Advaxis development product shall be jointly owned by both parties; provided, however that in the event the parties do not enter into a clinical development and commercialization agreement, we will not exploit, commercialize or license the joint inventions, except for the performance of its obligations under the MedImmune Agreement. MedImmune has the sole right to prosecute and enforce all patents and other intellectual property rights covering all joint inventions and all associated costs will be shared by the parties.

The MedImmune Agreement shall remain in effect until the earlier of (i) permitted termination, (ii) the parties entering into a clinical development and commercialization agreement or expiration of the negotiation period (unless extended), except with respect to rights that survive termination. Either party may terminate the MedImmune Agreement upon thirty (30) days written notice upon material breach of the other party, unless the breach is cured in such period or reasonable actions to cure the breach are initiated and pursued (if the breach is not capable of being cured during the 30-day notice period). In addition, either party may terminate the MedImmune Agreement immediately if the party determines in good faith that the trials may unreasonably affect the safety of trial subjects.

*Incyte*

On February 10, 2015, we entered into a Clinical Trial Collaboration Agreement (the “Incyte Agreement”) with Incyte for the development and analysis of a combination therapy for the treatment of cervical cancer. Under the terms of the Incyte Agreement, the parties will contribute their respective compounds to be dosed in combination during the course of the study, with Incyte acting as the sponsor of the study and taking the lead role in its conduct. The Incyte Agreement is to continue in full force and effect until completion of the final study report or until earlier termination by either party. Costs for the study are to be split between the parties, and Incyte will provide us with an invoice and supporting documents of our share of the costs incurred through the end of each calendar quarter.

*Aratana*

On March 19, 2014, we entered into a definitive Exclusive License Agreement (the “Aratana Agreement”) with Aratana. Pursuant to the Aratana Agreement, we granted Aratana an exclusive, worldwide, royalty-bearing license, with the right to sublicense, under certain Advaxis proprietary technology that enables the design of an immunotherapy utilizing live attenuated *Lm* bioengineered to secrete fusion proteins consisting of antigen and adjuvant molecules, including certain “Constructs” and related “Compounds” (both as defined in the Aratana Agreement) in order for Aratana to develop and commercialize animal health products containing or incorporating Compounds (“Products”) for use in non-human animal health applications (the “Aratana Field”) that will be targeted for treatment of osteosarcoma and other cancer indications in animals. Our technology licensed to Aratana includes certain patents and patent applications, as well as related know-how, data, technical information, results and other information controlled by us during the term of the Aratana Agreement that are reasonably necessary for the development, manufacture or commercialization of any Construct, Compound or Product.

In addition to the Constructs licensed by Aratana upon signing of the Aratana Agreement, Aratana also has a right of first refusal to license additional constructs from us in the future if we develop (on its own or upon request of Aratana) new constructs which are reasonably believed to be suitable for treating osteosarcoma and certain other cancer indications (“Additional Constructs”). If the parties agree upon the terms pursuant to which such Additional Constructs shall be added as Constructs under the Aratana Agreement, such Additional Constructs will be added by virtue of an amendment to the Aratana Agreement.

Aratana has granted us an exclusive, worldwide, royalty-free, fully-paid, irrevocable and perpetual license, with the right to sublicense, under Aratana’s existing technology, and any related sole Aratana development or Aratana’s rights in any joint inventions which may be developed by the parties during the course of the Aratana Agreement, solely for us to develop and commercialize our products for any and all uses outside of the Aratana Field, including, without limitation, all human health applications. The Aratana technology to be licensed to us will include any patents or patent applications controlled by Aratana during the term of the Aratana Agreement that claim or cover the manufacture, use, sale, offer for sale or import of any Products as well as related know-how, data, technical

information, results and other information controlled by Aratana during the term of the Aratana Agreement that is necessary or useful in the development, manufacture or commercialization of any Compound, Construct or Product.

Under the terms of the Aratana Agreement, Aratana paid an upfront payment to us in the amount of \$1,000,000 upon signing of the Aratana Agreement. Aratana will also pay us (a) up to \$36.5 million based on the achievement of milestone relating to the advancement of Products through the approval process with the USDA in the United States and the relevant regulatory authorities in the European Union (“E.U.”) in all four therapeutic areas and up to an additional \$15 million in cumulative sales milestones based on achievement of gross sales revenue targets for sales of any and all Products in the Aratana Field (regardless of therapeutic area), and (b) tiered royalties starting at 5% and going up to 10%, which will be paid based on net sales of any and all Products (regardless of therapeutic area) in the Aratana Field in the United States. Royalties for sales of Products outside of the United States will be paid at a rate equal to half of the royalty rate payable by Aratana on net sales of Products in the United States (starting at 2.5% and going up to 5%). Royalties will be payable on a Product-by-Product and country-by-country basis from first commercial sale of a Product in a country until the later of (a) the 10th anniversary of first commercial sale of such Product by Aratana, its affiliates or sub licensees in such country or (b) the expiration of the last-to-expire valid claim of our patents or joint patents claiming or covering the composition of matter, formulation or method of use of such Product in such country. Aratana will also pay us 50% of all sublicense royalties received by Aratana and its affiliates.

Furthermore, pursuant to the Aratana Agreement, we (i) issued and sold 306,122 shares of Common Stock to Aratana at a price of \$4.90 per share, which was equal to the closing price of the Common Stock on the NASDAQ Capital Market on March 19, 2014, and (ii) issued a ten-year warrant to Aratana giving Aratana the right to purchase up to 153,061 additional shares of Common Stock at an exercise price of \$4.90 per share. The warrant also contains a provision for cashless exercise if the fair market value of Advaxis’ Common Stock for the five trading days ending three trading days prior to the exercise date is higher than the exercise price. In connection with the sale of the Common Stock and warrants, we received aggregate net proceeds of \$1,500,000. We issued the shares and warrant in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933.

Aratana has filed a product license request for ADXS-HER2 (also known as AT-014 by Aratana) for the treatment of canine osteosarcoma with the USDA. Aratana received communication from the USDA in March 2015 stating that the previously submitted efficacy data for product licensure for AT-014, the cancer immunotherapy for canine osteosarcoma, was accepted and that it provides a reasonable expectation of efficacy that supports conditional licensure. While additional steps need to be completed, including in the areas of manufacturing and safety, Aratana anticipates that AT-014 could receive conditional licensure from the USDA in 2016.

*Master Services Agreement with inVentiv Health Clinical*

On May 29, 2014, we announced that we entered into a master services agreement with inVentiv Health Clinical (“inVentiv”), a leading global Clinical Research Organization (“CRO”), for the clinical development of certain immunotherapy product candidates in our proprietary pipeline.

Under the terms of the agreement, inVentiv can provide us with full CRO services to execute clinical studies for our current cancer immunotherapy product candidates including axalimogene filolisbac for cervical cancer, and other HPV-associated cancer; ADXS-HER2 for pediatric osteosarcoma and other HER2 over-expressing cancer and ADXS-PSA for prostate cancer. In addition, pending regulatory approval, we can leverage inVentiv’s significant commercialization capabilities in select countries, should we seek to do so.

*Agreement with Knight Therapeutics Inc.*

On August 26, 2015, we announced that we had entered into an agreement with Knight Therapeutics Inc. (“Knight”), a Canadian-based specialty pharmaceutical company, to commercialize in Canada Advaxis’ product candidates.

In connection with the agreement, Knight purchased 359,454 shares of our common stock at \$13.91 per share, which represents a seven percent premium to the price of our common stock at market close on August 25, 2015. In addition, Sectoral Asset Management, a leading Canadian-based global healthcare investment advisor, purchased 1,437,815 shares at \$13.91 per share directly from us on behalf of its clients. The combined gross proceeds to us from these direct investments was \$25 million.

Under the terms of the agreement, Knight will be responsible to conduct and fund all regulatory and commercial activities in Canada. We are eligible to receive double digit royalty as well as approximately \$33 million in cumulative sales milestones.

**Manufacturing**

Current Good Manufacturing Practices (“cGMP”) are the standards identified in order to conform to requirements by governmental agencies that control authorization and licensure for manufacture and distribution of drug products for either clinical investigations or commercial sale. GMPs identify the requirements for procurement, manufacturing,

testing, storage, distribution and the supporting quality systems in order to ensure that a drug product is safe for its intended application. GMPs are enforced in the United States by the FDA, under the authorities of the Federal Food, Drug and Cosmetic Act and its implementing regulations and use the phrase “current good manufacturing practices” (“cGMP”) to describe these standards.

We have entered into agreements with multiple third-party organizations to handle the manufacturing, testing, and distribution of our product candidates. These organizations have extensive experience within the biologics space and with the production of clinical and commercial GMP supplies. In parallel, we have also continued to invest in our internal process/analytical development, quality systems, manufacturing, and quality control infrastructure with the goal of accelerating and advancing our pipeline. Construction of a new pilot plant capable of producing early phase clinical trial GMP supplies and capable of supporting process optimization/scale-up is underway at our New Jersey headquarter. In addition, we have initiated the conceptual engineering design for a potential facility expansion to allow us to produce supplies for our neoepitope and our other programs. Our strategy is to continue to leverage both our partner’s capabilities and our internal capabilities in order to build a supply chain that is reliable, flexible, and cost competitive.

## **Competition**

The biotechnology and biopharmaceutical industries are characterized by rapid technological developments and a high degree of competition. As a result, our actual or proposed immunotherapies could become obsolete before we recoup any portion of our related research and development expenses. The biotechnology and biopharmaceutical industries are highly competitive, and this competition comes from both biotechnology firms and from major pharmaceutical companies, including: Aduro Biotech, Agenus Inc., Celldex Therapeutics, Inovio Pharmaceutical Inc., ISA Pharmaceuticals, MedImmune LLC, Neon Therapeutics, Oncolytics Biotech Inc., Oncothyreon Inc., et al., each of which is pursuing cancer vaccines and/or immunotherapies.

Many of these companies have substantially greater financial, marketing, and human resources than we do (including, in some cases, substantially greater experience in clinical testing, manufacturing, and marketing of pharmaceutical products). We also experience competition in the development of our immunotherapies from universities and other research institutions and compete with others in acquiring technology from such universities and institutions. In addition, certain of our immunotherapies may be subject to competition from investigational new drugs and/or products developed using other technologies, some of which have completed numerous clinical trials.

Our competition will be determined in part by the potential indications for which drugs are developed and ultimately approved by regulatory authorities. Additionally, the timing of market introduction of some of our potential immunotherapies or of competitors’ products may be an important competitive factor. Accordingly, the speed with which we can develop immunotherapies, complete preclinical testing, clinical trials and approval processes and supply commercial quantities to market are expected to be important competitive factors. We expect that competition among products approved for sale will be based on various factors, including product efficacy, safety, reliability, acceptance, availability, price and patent position.



## **Experience and Expertise**

Our management team has extensive experience in oncology development, including contract research, development and manufacturing across a board range of science, technologies, and process operations. We have built internal capabilities supporting research, clinical, medical, manufacturing and compliance operations and have extended our expertise with collaborations.

## **Employees**

As of January 6, 2016, we had 48 employees, all of which were full time employees. None of our employees are represented by a labor union, and we consider our relationship with our employees to be good.

## **Description of Property**

Our corporate offices are currently located at 305 College Road East, Princeton, New Jersey 08540. On April 1, 2011, we entered into a sublease agreement for such office, which is an approximately 10,000 square foot leased facility in Princeton, NJ. The agreement had a termination date of November 29, 2015. In May 2015, we signed a direct lease for an expansion area, as well as a direct lease for the existing office, lab and vivarium space upon the expiration of the sublease agreement, which is approximately 20,000 square foot of space in total. The lease term is seven years and expires on November 30, 2022. The lease requires base annual rent of approximately \$442,000 with annual increases in increments between 2% and 4% throughout the remainder of the lease. The lease contains two options to renew for five years each.

We plan to further increase our capacity to include in-house clinical and commercial manufacturing capabilities, where we first intend to manufacture clinical supplies for our ADXS-NEO program. We will continue to rent necessary offices and laboratories to support our growing business.

## **Item 1A: Risk Factors.**

*You should carefully consider the risks described below as well as other information provided to you in this annual report, including information in the section of this document entitled "Forward-Looking Statements." The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known*

*to us or that we currently believe are immaterial may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected, the value of our Common Stock could decline, and you may lose all or part of your investment.*

## **Risks Related to our Business and Industry**

### ***We are a clinical stage company.***

We are a clinical stage biotechnology company with a history of losses and can provide no assurance as to future operating results. As a result of losses that will continue throughout our clinical stage, we may exhaust our financial resources and be unable to complete the development of our products. We anticipate that our ongoing operational costs will increase significantly as we continue conducting our clinical development program. Our deficit will continue to grow during our drug development period.

We have sustained losses from operations in each fiscal year since our inception, and we expect losses to continue for the indefinite future due to the substantial investment in research and development. As of October 31, 2015, we had an accumulated deficit of \$134,054,259 and shareholders' equity of \$115,598,875. We expect to spend substantial additional sums on the continued administration and research and development of proprietary products and technologies with no certainty that our immunotherapies will become commercially viable or profitable as a result of these expenditures. If we fail to raise a significant amount of capital, we may need to significantly curtail operations or cease operations in the near future. If any of our product candidates fail in clinical trials or does not gain regulatory approval, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods.

### ***Drug discovery and development is a complex, time-consuming and expensive process that is fraught with risk and a high rate of failure.***

Product candidates are subject to extensive pre-clinical testing and clinical trials to demonstrate their safety and efficacy in humans. Conducting pre-clinical testing and clinical trials is a lengthy, time-consuming and expensive process that takes many years. We cannot be sure that pre-clinical testing or clinical trials of any of our product candidates will demonstrate the safety, efficacy and benefit-to-risk profile necessary to obtain marketing approvals. In addition, product candidates that experience success in pre-clinical testing and early-stage clinical trials will not necessarily experience the same success in late-stage clinical trials, which are required for marketing approval.

Even if we are successful in advancing a product candidate into the clinical development stage, before obtaining regulatory and marketing approvals, we must demonstrate through extensive human clinical trials that the product candidate is safe and effective for its intended use. Human clinical trials must be carried out under protocols that are



acceptable to regulatory authorities and to the independent committees responsible for the ethical review of clinical studies. There may be delays in preparing protocols or receiving approval for them that may delay the start or completion of the clinical trials. In addition, clinical practices vary globally, and there is a lack of harmonization among the guidance provided by various regulatory bodies of different regions and countries with respect to the data that is required to receive marketing approval, which makes designing global trials increasingly complex. There are a number of additional factors that may cause our clinical trials to be delayed, prematurely terminated or deemed inadequate to support regulatory approval, such as:

unforeseen safety issues (including those arising with respect to trials by third parties for compounds in a similar class as our product or product candidate), inadequate efficacy, or an unacceptable risk-benefit profile observed at any point during or after completion of the trials;

slower than expected rates of patient enrollment, which could be due to any number of factors, including failure of our third-party vendors, including our CROs, to effectively perform their obligations to us, a lack of patients who meet the enrollment criteria or competition from clinical trials in similar product classes or patient populations;

the risk of failure of our clinical investigational sites and related facilities, including our suppliers, to maintain compliance with the FDA's cGMP regulations or similar regulations in countries outside of the U.S., including the risk that these sites fail to pass inspections by the appropriate governmental authority, which could invalidate the data collected at that site or place the entire clinical trial at risk;

any inability to reach agreement or lengthy discussions with the FDA, equivalent regulatory authorities, or ethical review committees on trial design that we are able to execute;

changes in laws, regulations, regulatory policy or clinical practices, especially if they occur during ongoing clinical trials or shortly after completion of such trials.

clinical trial record keeping or data quality and accuracy issues.

Any deficiency in the design, implementation or oversight of our development programs could cause us to incur significant additional costs, experience significant delays, prevent us from obtaining marketing approval for any product candidate or abandon development of certain product candidates, any of which could harm our business and cause our stock price to decline.

***Our operating history does not afford investors a sufficient history on which to base an investment decision.***

We commenced our *Lm-LLO* based immunotherapy development business in February 2002 and today exist as a clinical stage company. We have no approved products and therefore have not derived any significant revenue from the sales of products and have not yet demonstrated ability to obtain regulatory approval, formulate and manufacture commercial scale products, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, there is limited information for investors to use as basis for assessing our future viability. Investors must consider the risks and difficulties we have encountered in the rapidly evolving vaccine and immunotherapy industry. Such risks include the following:

difficulties, complications, delays and other unanticipated factors in connection with the development of new drugs;

competition from companies that have substantially greater assets and financial resources than we have;

need for acceptance of our immunotherapies;

ability to anticipate and adapt to a competitive market and rapid technological developments;

need to rely on outside funding due to the length of drug development cycles and governmental approved protocols associated with the pharmaceutical industry; and

dependence upon key personnel including key independent consultants and advisors.

We cannot be certain that our strategy will be successful or that we will successfully address these risks. In the event that we do not successfully address these risks, our business, prospects, financial condition and results of operations could be materially and adversely affected. We may be required to reduce our staff, discontinue certain research or development programs of our future products and cease to operate.

***We may face legal claims; Litigation is expensive and we may not be able to afford the costs.***

We may face legal claims involving stockholders, consumers, competitors, and other issues. As described in “Legal Proceedings” in Part I Item 3 of this Form 10-K, we are engaged in a number of legal proceedings. Litigation and other legal proceedings are inherently uncertain, and adverse rulings could occur, including monetary damages, or an injunction stopping us from engaging in business practices, or requiring other remedies, such as compulsory licensing of patents.

The costs of litigation or any proceeding relating to our intellectual property or contractual rights could be substantial, even if resolved in our favor. Some of our competitors or financial funding sources have far greater resources than we do and may be better able to afford the costs of complex litigation. Also, in a lawsuit for infringement or contractual breaches, even if frivolous, will require considerable time commitments on the part of management, our attorneys and consultants. Defending these types of proceedings or legal actions involve considerable expense and could negatively affect our financial results.

***We can provide no assurance of the successful and timely development of new products.***

Our immunotherapies are at various stages of research and development. Further development and extensive testing will be required to determine their technical feasibility and commercial viability. We will need to complete significant additional clinical trials demonstrating that our product candidates are safe and effective to the satisfaction of the FDA and other non-U.S. regulatory authorities. The drug approval process is time-consuming, involves substantial expenditures of resources, and depends upon a number of factors, including the severity of the illness in question, the availability of alternative treatments, and the risks and benefits demonstrated in the clinical trials. Our success will depend on our ability to achieve scientific and technological advances and to translate such advances into licensable, FDA-approvable, commercially competitive products on a timely basis. Failure can occur at any stage of the process. If such programs are not successful, we may invest substantial amounts of time and money without developing revenue-producing products. As we enter a more extensive clinical program for our product candidates, the data generated in these studies may not be as compelling as the earlier results.

The proposed development schedules for our immunotherapies may be affected by a variety of factors, including technological difficulties, clinical trial failures, regulatory hurdles, clinical holds, competitive products, intellectual property challenges and/or changes in governmental regulation, many of which will not be within our control. Any delay in the development, introduction or marketing of our products could result either in such products being marketed at a time when their cost and performance characteristics would not be competitive in the marketplace or in the shortening of their commercial lives. In light of the long-term nature of our projects, the unproven technology involved and the other factors described elsewhere in this section, there can be no assurance that we will be able to successfully complete the development or marketing of any new products which could materially harm our business, results of operations and prospects.

***Our research and development expenses are subject to uncertainty.***

Factors affecting our research and development expenses include, but are not limited to:

competition from companies that have substantially greater assets and financial resources than we have;

need for acceptance of our immunotherapies;

ability to anticipate and adapt to a competitive market and rapid technological developments;

amount and timing of operating costs and capital expenditures relating to expansion of our business, operations and infrastructure;

need to rely on multiple levels of outside funding due to the length of drug development cycles and governmental approved protocols associated with the pharmaceutical industry; and

dependence upon key personnel including key independent consultants and advisors.

There can be no guarantee that our research and development expenses will be consistent from period to period. We may be required to accelerate or delay incurring certain expenses depending on the results of our studies and the availability of adequate funding.

***We are subject to numerous risks inherent in conducting clinical trials.***

We outsource the management of our clinical trials to third parties. Agreements with clinical research organizations, clinical investigators and medical institutions for clinical testing and data management services, place substantial responsibilities on these parties that, if unmet, could result in delays in, or termination of, our clinical trials. For example, if any of our clinical trial sites fail to comply with FDA-approved good clinical practices, we may be unable to use the data gathered at those sites. If these clinical investigators, medical institutions or other third parties do not carry out their contractual duties or obligations or fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical protocols or for other reasons, our clinical trials may be extended, delayed or terminated, and we may be unable to obtain regulatory approval for, or successfully commercialize, our agents. We are not certain that we will successfully recruit enough patients to complete our clinical trials nor that we will reach our primary endpoints. Delays in recruitment, lack of clinical benefit or unacceptable side effects would delay or prevent the initiation of future development of our agents.

We or our regulators may suspend or terminate our clinical trials for a number of reasons. We may voluntarily suspend or terminate our clinical trials if at any time we believe they present an unacceptable risk to the patients enrolled in our clinical trials or do not demonstrate clinical benefit. In addition, regulatory agencies may order the temporary or permanent discontinuation of our clinical trials, or place our products on temporary or permanent hold, at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to the patients enrolled in our clinical trials.

Our clinical trial operations are subject to regulatory inspections at any time. If regulatory inspectors conclude that we or our clinical trial sites are not in compliance with applicable regulatory requirements for conducting clinical trials, we may receive reports of observations or warning letters detailing deficiencies, and we will be required to implement corrective actions. If regulatory agencies deem our responses to be inadequate, or are dissatisfied with the corrective actions we or our clinical trial sites have implemented, our clinical trials may be temporarily or permanently discontinued, we may be fined, we or our investigators may be precluded from conducting any ongoing or any future clinical trials, the government may refuse to approve our marketing applications or allow us to manufacture or market our products, and we may be criminally prosecuted.

The lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval for our product candidates, which would materially harm our business, results of operations and prospects.

***The successful development of immunotherapies is highly uncertain.***

Successful development of biopharmaceuticals is highly uncertain and is dependent on numerous factors, many of which are beyond our control. Immunotherapies that appear promising in the early phases of development may fail to reach the market for several reasons including:

preclinical study results that may show the immunotherapy to be less effective than desired (e.g., the study failed to meet its primary objectives) or to have harmful or problematic side effects;

clinical study results that may show the immunotherapy to be less effective than expected (e.g., the study failed to meet its primary endpoint) or to have unacceptable side effects;

failure to receive the necessary regulatory approvals or a delay in receiving such approvals. Among other things, such delays may be caused by slow enrollment in clinical studies, length of time to achieve study endpoints, additional time requirements for data analysis, or Biologics License Application preparation, discussions with the FDA, an FDA request for additional preclinical or clinical data, or unexpected safety or manufacturing issues;

manufacturing costs, formulation issues, pricing or reimbursement issues, or other factors that make the immunotherapy uneconomical; and

the proprietary rights of others and their competing products and technologies that may prevent the immunotherapy from being commercialized.

Success in preclinical and early clinical studies does not ensure that large-scale clinical studies will be successful. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. The length of time necessary to complete clinical studies and to submit an application for marketing approval for a final decision by a regulatory authority varies significantly from one immunotherapy to the next, and may be difficult to predict.

Even if we are successful in getting market approval, commercial success of any of our product candidates will also depend in large part on the availability of coverage and adequate reimbursement from third-party payers, including government payers such as the Medicare and Medicaid programs and managed care organizations, which may be affected by existing and future health care reform measures designed to reduce the cost of health care. Third-party payers could require us to conduct additional studies, including post-marketing studies related to the cost effectiveness of a product, to qualify for reimbursement, which could be costly and divert our resources. If government and other

health care payers were not to provide adequate coverage and reimbursement levels for one any of our products once approved, market acceptance and commercial success would be reduced.

In addition, if one of our products is approved for marketing, we will be subject to significant regulatory obligations regarding product promotion, the submission of safety and other post-marketing information and reports and registration, and will need to continue to comply (or ensure that our third party providers) comply with cGMPs, and Good Clinical Practices (“GCP”), for any clinical trials that we conduct post-approval. In addition, there is always the risk that we or a regulatory authority might identify previously unknown problems with a product post-approval, such as adverse events of unanticipated severity or frequency. Compliance with these requirements is costly, and any failure to comply or other issues with our product candidates’ post-market approval could have a material adverse effect on our business, financial condition and results of operations.

*We must comply with significant government regulations.*

The research and development, manufacturing and marketing of human therapeutic and diagnostic products are subject to regulation, primarily by the FDA in the United States and by comparable authorities in other countries. These national agencies and other federal, state, local and foreign entities regulate, among other things, research and development activities (including testing in animals and in humans) and the testing, manufacturing, handling, labeling, storage, record keeping, approval, advertising and promotion of the products that we are developing. If we obtain approval for any of our product candidates, our operations will be directly or indirectly through our customers, subject to various federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, and privacy laws. Noncompliance with applicable laws and requirements can result in various adverse consequences, including delay in approving or refusal to approve product licenses or other applications, suspension or termination of clinical investigations, revocation of approvals previously granted, fines, criminal prosecution, civil and criminal penalties, recall or seizure of products, exclusion from having our products reimbursed by federal health care programs, the curtailment or restructuring of our operations, injunctions against shipping products and total or partial suspension of production and/or refusal to allow a company to enter into governmental supply contracts.

The process of obtaining requisite FDA approval has historically been costly and time-consuming. Current FDA requirements for a new human biological product to be marketed in the United States include: (1) the successful conclusion of preclinical laboratory and animal tests, if appropriate, to gain preliminary information on the product's safety; (2) filing with the FDA of an IND to conduct human clinical trials for drugs or biologics; (3) the successful completion of adequate and well-controlled human clinical trials to establish the safety and efficacy of the investigational new drug for its recommended use; and (4) filing by a company and acceptance and approval by the FDA of a BLA for a biological investigational new drug, to allow commercial distribution of a biologic product. The FDA also requires that any drug or formulation to be tested in humans be manufactured in accordance with its GMP regulations. This has been extended to include any drug that will be tested for safety in animals in support of human testing. The GMPs set certain minimum requirements for procedures, record-keeping and the physical characteristics of the laboratories used in the production of these drugs. A delay in one or more of the procedural steps outlined above could be harmful to us in terms of getting our immunotherapies through clinical testing and to market.

***We can provide no assurance that our clinical product candidates will obtain regulatory approval or that the results of clinical studies will be favorable.***

We are currently evaluating the safety and efficacy of several of our candidates in a number of ongoing pre-clinical and clinical trials. However, even though the initiation and conduct of the clinical trials is in accordance with the governing regulatory authorities in each country, as with any investigational new drug (under an IND in the United States, or the equivalent in countries outside of the United States), we are at risk of a clinical hold at any time based on the evaluation of the data and information submitted to the governing regulatory authorities.

There can be delays in obtaining FDA (U.S.) and/or other necessary regulatory approvals in the United States and in countries outside the United States for any investigational new drug and failure to receive such approvals would have an adverse effect on the investigational new drug's potential commercial success and on our business, prospects, financial condition and results of operations. The time required to obtain approval by the FDA and non-U.S. regulatory authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. For example, the FDA or non-U.S. regulatory authorities may disagree with the design or implementation of our clinical trials or study endpoints; or we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks. In addition, the FDA or non-U.S. regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials or the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a New Drug Application ("NDA") or other submission or to obtain regulatory approval in the United States or elsewhere. The FDA or non-U.S. regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and the approval policies or regulations of the FDA or non-U.S. regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

In addition to the foregoing, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among



jurisdictions. We have not submitted for nor obtained regulatory approval for any product candidate in-humans (US & EU) and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain regulatory approval.

***We may not obtain or maintain the benefits associated with orphan drug designation, including market exclusivity.***

Although we have been granted FDA orphan drug designation for axalimogene filolisbac for use in the treatment of anal cancer, HPV-associated head and neck cancer, Stage II-IV invasive cervical cancer and for ADXS-HER2 for the treatment of osteosarcoma in the United States, as well as EMA orphan drug designation for axalimogene filolisbac for the treatment of anal cancer and for ADXS-HER2 for the treatment of osteosarcoma in the EU, and intend to continue to expand our designation for these uses where applicable, we may not receive the benefits associated with orphan drug designation. This may result from a failure to maintain orphan drug status, or result from a competing product reaching the market that has an orphan designation for the same disease indication. Under U.S. rules for orphan drugs, if such a competing product reaches the market before ours does, the competing product could potentially obtain a scope of market exclusivity that limits or precludes our product from being sold in the United States for seven years. Even if we obtain exclusivity, the FDA could subsequently approve the same drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. A competitor also may receive approval of different products for the same indication for which our orphan product has exclusivity, or obtain approval for the same product but for a different indication for which the orphan product has exclusivity.

In addition, if and when we request orphan drug designation in Europe, the European exclusivity period is ten years but can be reduced to six years if the drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or EMEA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

***We rely upon patents to protect our technology. We may be unable to protect our intellectual property rights and we may be liable for infringing the intellectual property rights of others.***

Our ability to compete effectively will depend on our ability to maintain the proprietary nature of our technologies, including the *Lm*-LLO based immunotherapy platform technology, and the proprietary technology of others with whom we have entered into collaboration and licensing agreements.

Currently, we own or have rights to 193 patents and applications, which are owned, licensed from, or co-owned with Penn, Merck, NIH, and/or Georgia Regents University. We have obtained the rights to all future patent applications in this field originating in the laboratories of Dr. Yvonne Paterson and Dr. Fred Frankel, at the University of Pennsylvania.



We own or hold licenses to a number of issued patents and U.S. pending patent applications, as well as foreign patents and foreign counterparts. Our success depends in part on our ability to obtain patent protection both in the United States and in other countries for our product candidates, as well as the methods for treating patients in the product indications using these product candidates. Such patent protection is costly to obtain and maintain, and we cannot guarantee that sufficient funds will be available. Our ability to protect our product candidates from unauthorized or infringing use by third parties depends in substantial part on our ability to obtain and maintain valid and enforceable patents. Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the scope of claims made under these patents, our ability to obtain, maintain and enforce patents is uncertain and involves complex legal and factual questions. Even if our product candidates, as well as methods for treating patients for prescribed indications using these product candidates are covered by valid and enforceable patents and have claims with sufficient scope, disclosure and support in the specification, the patents will provide protection only for a limited amount of time. Accordingly, rights under any issued patents may not provide us with sufficient protection for our product candidates or provide sufficient protection to afford us a commercial advantage against competitive products or processes.

In addition, we cannot guarantee that any patents will issue from any pending or future patent applications owned by or licensed to us. Even if patents have issued or will issue, we cannot guarantee that the claims of these patents are or will be valid or enforceable or will provide us with any significant protection against competitive products or otherwise be commercially valuable to us. The laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. Furthermore, different countries have different procedures for obtaining patents, and patents issued in different countries offer different degrees of protection against use of the patented invention by others. If we encounter such difficulties in protecting or are otherwise precluded from effectively protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed.

The patent positions of biotechnology and pharmaceutical companies, including our patent position, involve complex legal and factual questions, and, therefore, validity and enforceability cannot be predicted with certainty. Patents may be challenged, deemed unenforceable, invalidated, or circumvented as a result of laws, rules and guidelines that are changed due to legislative, judicial or administrative actions, or review, which render our patents unenforceable or invalid. Our patents can be challenged by our competitors who can argue that our patents are invalid, unenforceable, lack utility, sufficient written description or enablement, or that the claims of the issued patents should be limited or narrowly construed. Patents also will not protect our product candidates if competitors devise ways of making or using these product candidates without infringing our patents.

We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our technologies, methods of treatment, product candidates, and any future products are covered by valid and enforceable patents or are effectively maintained as trade secrets and we have the funds to enforce our rights, if necessary.

The expiration of our owned or licensed patents before completing the research and development of our product candidates and receiving all required approvals in order to sell and distribute the products on a commercial scale can adversely affect our business and results of operations.

***Litigation regarding patents, patent applications and other proprietary rights may be expensive and time consuming. If we are involved in such litigation, it could cause delays in bringing product candidates to market and harm our ability to operate.***

Our success will depend in part on our ability to operate without infringing the proprietary rights of third parties. The pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights. Other parties may obtain patents in the future and allege that the products or use of our technologies infringe these patent claims or that we are employing their proprietary technology without authorization.

In addition, third parties may challenge or infringe upon our existing or future patents. Proceedings involving our patents or patent applications or those of others could result in adverse decisions regarding:

the patentability of our inventions relating to our product candidates; and/or

the enforceability, validity or scope of protection offered by our patents relating to our product candidates.

Even if we are successful in these proceedings, we may incur substantial costs and divert management time and attention in pursuing these proceedings, which could have a material adverse effect on us. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, develop or obtain non-infringing technology, fail to defend an infringement action successfully or have infringed patents declared valid, we may:

incur substantial monetary damages;

encounter significant delays in bringing our product candidates to market; and/or

be precluded from participating in the manufacture, use or sale of our product candidates or methods of treatment requiring licenses.

***We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.***

We also rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers, and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

***We are dependent upon our license agreement with Penn; if we breach the license agreement and/or fail to make payments due and owing to Penn under our license agreement, our business will be materially and adversely affected.***

Pursuant to the terms of our license agreement with Penn, which has been amended from time to time, we have acquired exclusive worldwide licenses for patents and patent applications related to our proprietary Listeria vaccine technology. The license provides us with the exclusive commercial rights to the patent portfolio developed at Penn as of the effective date of the license, in connection with Dr. Paterson and requires us to pay various milestone, legal, filing and licensing payments to commercialize the technology. As of October 31, 2015, we had no outstanding payments to Penn. We can provide no assurance that we will be able to make all future payments due and owing thereunder, that such licenses will not be terminated or expire during critical periods, that we will be able to obtain licenses from Penn for other rights that may be important to us, or, if obtained, that such licenses will be obtained on commercially reasonable terms. The loss of any current or future licenses from Penn or the exclusivity rights provided therein could materially harm our business, financial condition and operating results.

***If we are unable to obtain licenses needed for the development of our product candidates, or if we breach any of the agreements under which we license rights to patents or other intellectual property from third parties, we could lose license rights that are important to our business.***

If we are unable to maintain and/or obtain licenses needed for the development of our product candidates in the future, we may have to develop alternatives to avoid infringing on the patents of others, potentially causing increased costs and delays in drug development and introduction or precluding the development, manufacture, or sale of planned products. Some of our licenses provide for limited periods of exclusivity that require minimum license fees and payments and/or may be extended only with the consent of the licensor. We can provide no assurance that we will be able to meet these minimum license fees in the future or that these third parties will grant extensions on any or all such licenses. This same restriction may be contained in licenses obtained in the future.

Additionally, we can provide no assurance that the patents underlying any licenses will be valid and enforceable. To the extent any products developed by us are based on licensed technology, royalty payments on the licenses will reduce our gross profit from such product sales and may render the sales of such products uneconomical. In addition, the loss of any current or future licenses or the exclusivity rights provided therein could materially harm our business financial condition and our operations.

***We have no manufacturing, sales, marketing or distribution capability and we must rely upon third parties for such.***

We do not intend to create facilities to manufacture our products and therefore are dependent upon third parties to do so. We currently have agreements with various third party manufacturing facilities for production of our immunotherapies for research and development and testing purposes. We depend on our manufacturers to meet our deadlines, quality standards and specifications. Our reliance on third parties for the manufacture of our drug substance, investigational new drugs and, in the future, any approved products, creates a dependency that could severely disrupt our research and development, our clinical testing, and ultimately our sales and marketing efforts if the source of such supply proves to be unreliable or unavailable. If the contracted manufacturing source is unreliable or unavailable, we may not be able to manufacture clinical drug supplies of our immunotherapies, and our preclinical and clinical testing programs may not be able to move forward and our entire business plan could fail. If we are able to commercialize our products in the future, there is no assurance that our manufacturers will be able to meet commercialized scale production requirements in a timely manner or in accordance with applicable standards or current GMP.

***If we are unable to establish or manage strategic collaborations in the future, our revenue and drug development may be limited.***

Our strategy includes eventual substantial reliance upon strategic collaborations for marketing and commercialization of our clinical product candidates, and we may rely even more on strategic collaborations for research, development, marketing and commercialization for some of our immunotherapies. To date, we have been heavily reliant upon third party outsourcing for our clinical trials execution and production of drug supplies for use in clinical trials. Establishing strategic collaborations is difficult and time-consuming. Our discussions with potential collaborators may not lead to the establishment of collaborations on favorable terms, if at all. For example, potential collaborators may reject collaborations based upon their assessment of our financial, clinical, regulatory or intellectual property position. Our current collaborations, as well as any future new collaborations, may never result in the successful development or commercialization of our immunotherapies or the generation of sales revenue. To the extent that we have entered or will enter into co-promotion or other collaborative arrangements, our product revenues are likely to be lower than if we directly marketed and sold any products that we may develop.

Management of our relationships with our collaborators will require:

significant time and effort from our management team;

financial funding to support said collaboration;

coordination of our research and development programs with the research and development priorities of our collaborators; and

effective allocation of our resources to multiple projects.

If we continue to enter into research and development collaborations at the early phases of drug development, our success will in part depend on the performance of our corporate collaborators. We will not directly control the amount or timing of resources devoted by our corporate collaborators to activities related to our immunotherapies. Our corporate collaborators may not commit sufficient resources to our research and development programs or the commercialization, marketing or distribution of our immunotherapies. If any corporate collaborator fails to commit sufficient resources, our preclinical or clinical development programs related to this collaboration could be delayed or terminated. Also, our collaborators may pursue existing or other development-stage products or alternative technologies in preference to those being developed in collaboration with us. Finally, if we fail to make required milestone or royalty payments to our collaborators or to observe other obligations in our agreements with them, our collaborators may have the right to terminate those agreements.

***We may incur substantial liabilities from any product liability claims if our insurance coverage for those claims is inadequate.***

We face an inherent risk of product liability exposure related to the testing of our immunotherapies in human clinical trials, and will face an even greater risk if the approved products are sold commercially. An individual may bring a liability claim against us if one of the immunotherapies causes, or merely appears to have caused, an injury. If we cannot successfully defend ourselves against the product liability claim, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for our immunotherapies;

damage to our reputation;

withdrawal of clinical trial participants;

costs of related litigation;

substantial monetary awards to patients or other claimants;

loss of revenues;

the inability to commercialize immunotherapies; and

increased difficulty in raising required additional funds in the private and public capital markets.

We have Product Liability and Clinical Trial Liability insurance coverage for each clinical trial. We do not have product liability insurance for sold commercial products because we do not have products on the market. We currently are in the process of obtaining insurance coverage and plan to expand such coverage to include the sale of commercial products if marketing approval is obtained for any of our immunotherapies. However, insurance coverage is increasingly expensive and we may not be able to maintain insurance coverage at a reasonable cost and we may not be able to obtain insurance coverage that will be adequate to satisfy any liability that may arise.

***We may incur significant costs complying with environmental laws and regulations.***

We and our contracted third parties use hazardous materials, including chemicals and biological agents and compounds that could be dangerous to human health and safety or the environment. As appropriate, we store these materials and wastes resulting from their use at our or our outsourced laboratory facility pending their ultimate use or disposal. We contract with a third party to properly dispose of these materials and wastes. We are subject to a variety of federal, state and local laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials and wastes. Compliance with such laws and regulations may be costly.

***If we use biological materials in a manner that causes injury, we may be liable for damages.***

Our research and development activities involve the use of biological and hazardous materials. Although we believe our safety procedures for handling and disposing of these materials complies with federal, state and local laws and regulations, we cannot entirely eliminate the risk of accidental injury or contamination from the use, storage, handling or disposal of these materials. We do not carry specific biological waste or pollution liability or remediation insurance coverage, nor do our workers' compensation, general liability, and property and casualty insurance policies provide coverage for damages and fines/penalties arising from biological exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended or terminated.



***We need to attract and retain highly skilled personnel; we may be unable to effectively manage growth with our limited resources.***

As of January 6, 2016, we had 48 employees, all of which were full time employees. Our ability to attract and retain highly skilled personnel is critical to our operations and expansion. We face competition for these types of personnel from other technology companies and more established organizations, many of which have significantly larger operations and greater financial, technical, human and other resources than we have. We may not be successful in attracting and retaining qualified personnel on a timely basis, on competitive terms, or at all. If we are not successful in attracting and retaining these personnel, or integrating them into our operations, our business, prospects, financial condition and results of operations will be materially adversely affected. In such circumstances we may be unable to conduct certain research and development programs, unable to adequately manage our clinical trials and other products, and unable to adequately address our management needs.

***We depend upon our senior management and key consultants and their loss or unavailability could put us at a competitive disadvantage.***

We depend upon the efforts and abilities of our senior executives, as well as the services of several key consultants. The loss or unavailability of the services of any of these individuals for any significant period of time could have a material adverse effect on our business, prospects, financial condition and results of operations. We have not obtained, do not own, nor are we the beneficiary of, key-person life insurance.

***The biotechnology and immunotherapy industries are characterized by rapid technological developments and a high degree of competition. We may be unable to compete with more substantial enterprises.***

The biotechnology and biopharmaceutical industries are characterized by rapid technological developments and a high degree of competition. As a result, our actual or proposed immunotherapies could become obsolete before we recoup any portion of our related research and development and commercialization expenses. Competition in the biopharmaceutical industry is based significantly on scientific and technological factors. These factors include the availability of patent and other protection for technology and products, the ability to commercialize technological developments and the ability to obtain governmental approval for testing, manufacturing and marketing. We compete with specialized biopharmaceutical firms in the United States, Europe and elsewhere, as well as a growing number of large pharmaceutical companies that are applying biotechnology to their operations. Many biopharmaceutical companies have focused their development efforts in the human therapeutics area, including cancer. Many major pharmaceutical companies have developed or acquired internal biotechnology capabilities or made commercial arrangements with other biopharmaceutical companies. These companies, as well as academic institutions and governmental agencies and private research organizations, also compete with us in recruiting and retaining highly qualified scientific personnel and consultants. Our ability to compete successfully with other companies in the pharmaceutical field will also depend to a considerable degree on the continuing availability of capital to us.

We are aware of certain investigational new drugs under development or approved products by competitors that are used for the prevention, diagnosis, or treatment of certain diseases we have targeted for drug development. Various companies are developing biopharmaceutical products that have the potential to directly compete with our immunotherapies even though their approach to may be different. The biotechnology and biopharmaceutical industries are highly competitive, and this competition comes from both biotechnology firms and from major pharmaceutical companies, including companies like: Aduro Biotech, Agenus Inc., Bionovo Inc., Celldex Therapeutics, Inovio Pharmaceutical Inc., ISA Pharmaceuticals, MedImmune LLC, Neon Therapeutics, Oncolytics Biotech Inc., Oncothyreon Inc., each of which is pursuing cancer vaccines and/or immunotherapies. Many of these companies have substantially greater financial, marketing, and human resources than we do (including, in some cases, substantially greater experience in clinical testing, manufacturing, and marketing of pharmaceutical products). We also experience competition in the development of our immunotherapies from universities and other research institutions and compete with others in acquiring technology from such universities and institutions.

In addition, certain of our immunotherapies may be subject to competition from investigational new drugs and/or products developed using other technologies, some of which have completed numerous clinical trials.

***We may not obtain or maintain the benefits associated with breakthrough therapy designation.***

If we apply for Breakthrough Therapy Designation (“BTD”), we may not be granted BTD, or even if granted, we may not receive the benefits associated with BTD. This may result from a failure to maintain breakthrough therapy status if it is no longer considered to be a breakthrough therapy. For example, a drug’s development program may be granted BTD using early clinical testing that shows a much higher response rate than available therapies. However, subsequent interim data derived from a larger study may show a response that is substantially smaller than the response seen in early clinical testing. Another example is where BTD is granted to two drugs that are being developed for the same use. If one of the two drugs gains traditional approval, the other would not retain its designation unless its sponsor provided evidence that the drug may demonstrate substantial improvement over the recently approved drug. When BTD is no longer supported by emerging data or the designated drug development program is no longer being pursued, the FDA may choose to send a letter notifying the sponsor that the program is no longer designated as a breakthrough therapy development program.

We believe that our immunotherapies under development and in clinical trials will address unmet medical needs in the treatment of cancer. Our competition will be determined in part by the potential indications for which drugs are developed and ultimately approved by regulatory authorities. Additionally, the timing of market introduction of some of our potential products or of competitors’ products may be an important competitive factor. Accordingly, the relative speed with which we can develop immunotherapies, complete preclinical testing, clinical trials and approval processes and supply commercial quantities to market is expected to be important competitive factors. We expect that competition among products approved for sale will be based on various factors, including product efficacy, safety, reliability, availability, price and patent position.



## Risks Related to our Securities

### *The price of our Common Stock and warrants may be volatile.*

The trading price of our Common Stock and warrants may fluctuate substantially. The price of our Common Stock and warrants that will prevail in the market may be higher or lower than the price you have paid, depending on many factors, some of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose part or all of your investment in our Common Stock and warrants. Those factors that could cause fluctuations include, but are not limited to, the following:

price and volume fluctuations in the overall stock market from time to time;

fluctuations in stock market prices and trading volumes of similar companies;

actual or anticipated changes in our net loss or fluctuations in our operating results or in the expectations of securities analysts;

the issuance of new equity securities pursuant to a future offering, including issuances of preferred stock;

general economic conditions and trends;

positive and negative events relating to healthcare and the overall pharmaceutical and biotech sector;

major catastrophic events;

sales of large blocks of our stock;

significant dilution caused by the anti-dilutive clauses in our financial agreements;

departures of key personnel;

changes in the regulatory status of our immunotherapies, including results of our clinical trials;

events affecting Penn or any current or future collaborators;

announcements of new products or technologies, commercial relationships or other events by us or our competitors;

regulatory developments in the United States and other countries;

failure of our Common Stock or warrants to be listed or quoted on The NASDAQ Stock Market, NYSE Amex Equities or other national market system;

changes in accounting principles; and

discussion of us or our stock price by the financial and scientific press and in online investor communities.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. Due to the potential volatility of our stock price, we may therefore be the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources from our business.

***A limited public trading market may cause volatility in the price of our Common Stock.***

The quotation of our Common Stock on the NASDAQ does not assure that a meaningful, consistent and liquid trading market currently exists, and in recent years such market has experienced extreme price and volume fluctuations that have particularly affected the market prices of many smaller companies like us. Our Common Stock is thus subject to this volatility. Sales of substantial amounts of Common Stock, or the perception that such sales might occur, could adversely affect prevailing market prices of our Common Stock and our stock price may decline substantially in a short time and our shareholders could suffer losses or be unable to liquidate their holdings.

***The market prices for our Common Stock may be adversely impacted by future events.***

Our Common Stock began trading on the over-the-counter-markets on July 28, 2005 and is currently quoted on the NASDAQ Stock Market under the symbol ADXS. Market prices for our Common Stock and warrants will be influenced by a number of factors, including:

the issuance of new equity securities pursuant to a future offering, including issuances of preferred stock;

changes in interest rates;

significant dilution caused by the anti-dilutive clauses in our financial agreements;

competitive developments, including announcements by competitors of new products or services or significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;

variations in quarterly operating results;

change in financial estimates by securities analysts;

the depth and liquidity of the market for our Common Stock and warrants;

investor perceptions of our company and the pharmaceutical and biotech industries generally; and

general economic and other national conditions.

***If we fail to remain current with our listing requirements, we could be removed from the NASDAQ Capital Market, which would limit the ability of broker-dealers to sell our securities and the ability of shareholders to sell their securities in the secondary market.***

Companies trading on the NASDAQ Marketplace, such as our Company, must be reporting issuers under Section 12 of the Exchange Act, as amended, and must meet the listing requirements in order to maintain the listing of our Common Stock on the NASDAQ Capital Market. If we do not meet these requirements, the market liquidity for our securities could be severely adversely affected by limiting the ability of broker-dealers to sell our securities and the ability of shareholders to sell their securities in the secondary market.

***Sales of additional equity securities may adversely affect the market price of our Common Stock and your rights may be reduced.***

We expect to continue to incur drug development and selling, general and administrative costs, and to satisfy our funding requirements, we will need to sell additional equity securities, which may be subject to registration rights and warrants with anti-dilutive protective provisions. The sale or the proposed sale of substantial amounts of our Common Stock or other equity securities in the public markets may adversely affect the market price of our Common Stock and our stock price may decline substantially. Our shareholders may experience substantial dilution and a reduction in the price that they are able to obtain upon sale of their shares. Also, new equity securities issued may have greater rights, preferences or privileges than our existing Common Stock.

***Additional authorized shares of Common Stock available for issuance may adversely affect the market price of our securities.***

We are currently authorized to issue 45,000,000 shares of our Common Stock. As of January 7, 2016, we had 33,769,136 shares of our Common Stock issued and outstanding, excluding shares issuable upon exercise of our outstanding warrants, options, convertible promissory notes and shares of Common Stock earned but not yet issued under our director compensation program. Under our 2011 Employee Stock Purchase Plan, or ESPP, our employees can buy our Common Stock at a discounted price. To the extent the shares of Common Stock are issued, options and warrants are exercised or convertible promissory notes are converted, holders of our Common Stock will experience dilution. In the event of any future financing of equity securities or securities convertible into or exchangeable for, Common Stock, holders of our Common Stock may experience dilution. In addition, as of January 4, 2016, we had outstanding options to purchase 3,357,554 shares of our Common Stock at a weighted average exercise price of approximately \$13.34 per share and outstanding warrants to purchase 3,241,138 shares of our Common Stock (including the above warrants subject to weighted-average anti-dilution protection); and approximately 22,827 shares of our Common Stock are available for grant under the ESPP.

***We do not intend to pay cash dividends.***

We have not declared or paid any cash dividends on our Common Stock, and we do not anticipate declaring or paying cash dividends for the foreseeable future. Any future determination as to the payment of cash dividends on our Common Stock will be at our Board of Directors' discretion and will depend on our financial condition, operating results, capital requirements and other factors that our Board of Directors considers to be relevant. In addition, the terms of our Series B Preferred Stock prohibit the payment of dividends on our Common Stock for so long as any shares of our Series B Preferred Stock are outstanding.

*Our certificate of incorporation, bylaws and Delaware law have anti-takeover provisions that could discourage, delay or prevent a change in control, which may cause our stock price to decline.*

Our certificate of incorporation, Bylaws and Delaware law contain provisions which could make it more difficult for a third party to acquire us, even if closing such a transaction would be beneficial to our shareholders. To date, we have not issued shares of preferred stock, however, we are authorized to issue up to 5,000,000 shares of preferred stock. This preferred stock may be issued in one or more series, the terms of which may be determined at the time of issuance by our Board of Directors without further action by shareholders. The terms of any series of preferred stock may include voting rights (including the right to vote as a series on particular matters), preferences as to dividend, liquidation, conversion and redemption rights and sinking fund provisions. The issuance of any preferred stock could materially adversely affect the rights of the holders of our Common Stock, and therefore, reduce the value of our Common Stock. In particular, specific rights granted to future holders of preferred stock could be used to restrict our ability to merge with, or sell our assets to, a third party and thereby preserve control by the present management.

Provisions of our certificate of incorporation, Bylaws and Delaware law also could have the effect of discouraging potential acquisition proposals or making a tender offer or delaying or preventing a change in control, including changes a shareholder might consider favorable. Such provisions may also prevent or frustrate attempts by our shareholders to replace or remove our management. In particular, the certificate of incorporation, Bylaws and Delaware law, as applicable, among other things; provide the Board of Directors with the ability to alter the Bylaws without shareholder approval, and provide that vacancies on the Board of Directors may be filled by a majority of directors in office, although less than a quorum.

We are also subject to Section 203 of the Delaware General Corporation Law, which, subject to certain exceptions, prohibits “business combinations” between a publicly-held Delaware corporation and an “interested shareholder,” which is generally defined as a shareholder who becomes a beneficial owner of 15% or more of a Delaware corporation’s voting stock for a three-year period following the date that such shareholder became an interested shareholder.

These provisions are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of our company to first negotiate with its board. These provisions may delay or prevent someone from acquiring or merging with us, which may cause the market price of our Common Stock to decline.

**Item 1B: Unresolved Staff Comments.**

None.



**Item 2. Properties.**

Our corporate offices are currently located at 305 College Road East, Princeton, New Jersey 08540. On April 1, 2011, we entered into a sublease agreement for such office, which is an approximately 10,000 square foot leased facility in Princeton, NJ. The agreement had a termination date of November 29, 2015. In May 2015, we signed a direct lease for an expansion area, as well as a direct lease for the existing office, lab and vivarium space upon the expiration of the sublease agreement, which is approximately 20,000 square feet of space in total. The lease term is seven years and expires on November 30, 2022. The lease requires base annual rent of approximately \$442,000 with annual increases in increments between 2% and 4% throughout the remainder of the lease. The lease contains two options to renew for five years each.

We plan to further increase our capacity to include in-house clinical and commercial manufacturing capabilities, where we first intend to manufacture clinical supplies for our ADXS-NEO program. We will continue to rent necessary offices and laboratories to support our growing business.

**Item 3. Legal Proceedings.**

The information required under this item will be set forth in Footnote 11. Commitments and Contingencies – Legal Proceedings with this Form 10-K and is incorporated herein by reference.

**Item 4. Mine Safety Disclosures.**

None.

**PART II****Item 5. Market for Our Common Stock and Related Shareholder Matters.**

Set forth below for the periods indicated are the high and low sales prices for trading in our Common Stock. Through October 2013, our Common Stock was quoted on the OTC Bulletin Board under the symbol ADXS.OB. Fiscal year 2013 bid prices represent prices quoted by broker-dealers on the OTC Bulletin Board. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions, and, particularly because our Common Stock is traded infrequently, may not necessarily represent actual transactions or a liquid trading market. Fiscal year 2014 bid prices represent prices as reported by the Nasdaq Capital Market.

| Fiscal 2015    | High    | Low     |
|----------------|---------|---------|
| Fourth Quarter | \$19.71 | \$9.76  |
| Third Quarter  | \$28.77 | \$15.82 |
| Second Quarter | \$23.61 | \$7.02  |
| First Quarter  | \$13.51 | \$2.75  |

| Fiscal 2014    | High   | Low    |
|----------------|--------|--------|
| Fourth Quarter | \$4.60 | \$2.50 |
| Third Quarter  | \$3.57 | \$2.52 |
| Second Quarter | \$5.99 | \$2.46 |
| First Quarter  | \$5.70 | \$2.88 |

| Fiscal 2013    | High    | Low    |
|----------------|---------|--------|
| Fourth Quarter | \$7.96  | \$2.70 |
| Third Quarter  | \$7.50  | \$3.18 |
| Second Quarter | \$17.50 | \$8.75 |
| First Quarter  | \$8.75  | \$3.75 |

As of October 31, 2015, there were approximately 108 shareholders of record. Because shares of our Common Stock are held by depositaries, brokers and other nominees, the number of beneficial holders of our shares is substantially larger than the number of shareholders of record. On January 6, 2016, the last reported sale price per share for our Common Stock as reported by NASDAQ was \$7.97.

We have not paid or declared any cash dividends during the past two fiscal years or subsequent period prior to the filing of this annual report, nor do we anticipate paying cash dividends in the foreseeable future.

### **Recent Sales of Unregistered Securities**

On August 1, 2015, the registrant issued 988 shares of Common Stock to its Executive Officers, pursuant to their Employment Agreements.

On August 10, 2015, the registrant issued 64,104 shares of Common Stock to an accredited investor as payment for consulting services.

On September 1, 2015, the registrant issued 1,020 shares of Common Stock to its Executive Officers, pursuant to their Employment Agreements.

On September 18, 2015, the registrant issued 1,134 shares of Common Stock to an accredited investor as payment for consulting services.

On October 1, 2015, the registrant issued 1,478 shares of Common Stock to its Executive Officers, pursuant to their Employment Agreements.

On October 20, 2015, the registrant issued 30,413 shares of Common Stock to a current Executive Officer which represents the second of three vesting periods of an inducement grant pursuant to his Employment Agreement.

On October 27, 2015, the registrant issued 18,269 shares of Common Stock to a current Executive Officer which represents the third of four vesting periods of an inducement grant pursuant to his Employment Agreement.

On October 30, 2015, the registrant issued 2,263 shares of Common Stock to a current employee pursuant to a warrant exercise.

On October 30, 2015, the registrant issued 1,064 shares of Common Stock to its Executive Officers, pursuant to their Employment Agreements.

On November 17, 2015, the registrant issued 17,201 shares of Common Stock to an accredited investor as payment for consulting services.

On November 30, 2015, the registrant issued 1,195 shares of Common Stock to its Executive Officers, pursuant to their Employment Agreements.

On December 1, 2015, the registrant issued 1,657 shares of Common Stock to an accredited investor as payment for consulting services.

On December 29, 2015, the Company issued 122,662 shares of Common Stock to an accredited investor, pursuant to a warrant exercise.

On December 31, 2015, the Company issued 2,044 shares of Common Stock to its Executive Officers, pursuant to their Employment Agreements.

On January 7, 2016, the Company issued 5,000 shares of Common Stock to an accredited investor as payment for consulting services.

**Equity Compensation Plan Information**

The following table provides information regarding the status of our existing equity compensation plans at October 31, 2015:

| Plan category  | Number of shares of Common Stock to be issued on exercise of outstanding options, warrants and rights | Weighted-average price of outstanding options, warrants and rights | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the previous columns) |
|--|---|--|---|
| Equity compensation plans approved by security holders | 1,981,939   | \$ 13.78   | 2,134,468   |

**Treasury Share Repurchases**

The following table represents treasury share repurchases during the three months ended October 31, 2015:

| Period                           | (a)<br>Total Number of Shares Purchased (1) | (b)<br>Average Price Paid Per Share | (c)<br>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | (d)<br>Maximum Dollar Value of Shares that May Yet Be Purchased Under the Program |
|----------------------------------|---|-------------------------------------|---|---|
| August 1, 2015 – August 31, 2015 | 576   | \$ 16.89                            | N/A   | N/A   |

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|  |        |          |     |     |
|--|--------|----------|-----|-----|
| September 1, 2015 – September 30, 2015 | 10,112 | \$ 15.16 | N/A | N/A |
| October 1, 2015 – October 31, 2015     | 82,770 | \$ 10.55 | N/A | N/A |
| Total                                  | 93,458 | \$ 11.09 | N/A | N/A |

(1) Consists of shares repurchased by the Company for certain employees' restricted stock units that vested to satisfy minimum tax withholding obligations that arose on the vesting of the restricted stock units.

### ITEM 6. Selected Financial Data.

Not required.

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

*This Management's Discussion and Analysis of Financial Conditions and Results of Operations and other portions of this report contain forward-looking information that involves risks and uncertainties. Our actual results could differ materially from those anticipated by the forward-looking information. Factors that may cause such differences include, but are not limited to, availability and cost of financial resources, product demand, market acceptance and other factors discussed in this report under the heading "Risk Factors". This Management's Discussion and Analysis of Financial Conditions and Results of Operations should be read in conjunction with our financial statements and the related notes included elsewhere in this report.*

#### Overview

We are a clinical-stage biotechnology company focused on the discovery, development and commercialization of proprietary *Lm*-LLO cancer immunotherapies. These immunotherapies are based on a platform technology that utilizes live attenuated *Listeria monocytogenes* bioengineered to secrete antigen/adjuvant fusion proteins. These *Lm*-LLO strains are believed to be a significant advancement in immunotherapy as they integrate multiple functions into a single immunotherapy as they access and direct antigen presenting cells to stimulate anti-tumor T-cell immunity, stimulate and activate the immune system with the equivalent of multiple adjuvants, and simultaneously reduce tumor protection in the tumor microenvironment to enable the T-cells to eliminate tumors.

#### Results of Operations

#### Fiscal Year 2015 Compared to Fiscal Year 2014

*Revenue*

We did not record any revenue for the year end October 31, 2015.

During the year end October 31, 2014, we transitioned from a development stage company to an operating company. On March 19, 2014, we and Aratana entered into the Agreement pursuant to which we granted Aratana an exclusive, worldwide, royalty-bearing, license, with the right to sublicense, certain Advaxis proprietary technology that enables Aratana to develop and commercialize animal health products that will be targeted for treatment of osteosarcoma and other cancer indications in animals. Under the terms of the agreement. Aratana paid us an upfront payment of \$1 million. As this license has stand-alone value to Aratana (who has the ability to sublicense) and was delivered to Aratana upon execution of the Agreement, we properly recorded the \$1 million payment as licensing revenue in the year ended October 31, 2014.

### *Research and Development Expenses*

We make significant investments in research and development in support of our development programs both clinically and pre-clinically. Research and development costs are expensed as incurred and primarily include salary and benefit costs, third-party grants, fees paid to clinical research organizations and supply costs. Research and development expense was \$24.2 million for the year ended October 31, 2015, compared with \$8.7 million for the year ended October 31, 2014, an increase of \$15.5 million. The increase was primarily a result of higher third-party costs, specifically related to axalimogene filolisbac support in manufacturing and clinical trial expenses, for the Anal, Head & Neck, High Dose, and Cervical Cancer programs, as well as ADXS-PSA Phase 1/2 trial support. In addition, stock based compensation costs rose by approximately \$5.0 million due to a rise in our share price and an increase in the number of shares awarded as a result of an increased headcount.

We anticipate a significant increase in research and development expenses on a continuous basis as a result of our intended expanded development and commercialization efforts primarily related to clinical trials and product development. In addition, we expect to incur expenses in the development of strategic and other relationships required to license, manufacture and distribute our product candidates when they are approved.

### *General and Administrative Expenses*

General and administrative expenses primarily include salary and benefit costs for employees included in our finance, legal and administrative organizations, outside legal and professional services, and facilities costs. General and administrative expense was \$24.5 million for the year ended October 31, 2015, compared with \$11.9 million for the year ended October 31, 2014, an increase of \$12.6 million. The increase was due to greater stock based compensation costs of approximately \$11.0 million attributable to a rise in our share price and an increase in the number of shares awarded as a result of an increased headcount. Furthermore, greater legal costs of approximately \$0.6 million for consultation on a variety of corporate matters and \$1.4 million in cash payments for investor relations. The aforementioned was partially offset by \$0.5 million in severance costs related to a former employee in the prior period.

We anticipate general and administrative expenses in the near term to remain comparable to current levels, exclusive of the impact of future stock awards.

### *Interest Income*



Interest income was \$114,219 for the year ended October 31, 2015, compared with \$36,305 for the year ended October 31, 2014. Interest income earned for the year ended October 31, 2015 reflected interest income earned on the Company's held-to-maturity investments and savings account balance. Interest income earned for the year ended October 31, 2014 reflected interest income earned on the Company's savings account balance.

#### *Changes in Fair Values*

For the year ended October 31, 2015, the Company recorded non-cash expense from changes in the fair value of the warrant liability of \$48,950 due to an increase in the fair value of liability warrants primarily resulting from a larger range of share prices used in the calculation of the Black-Scholes Model ("BSM") volatility input, as well as a significant increase in our share price from \$3.18 at October 31, 2014 to \$11.09 at October 31, 2015. This was partially offset by the expiration of some warrants.

For the year ended October 31, 2014, the Company recorded non-cash income from changes in the fair value of the warrant liability of \$619,089 due to a decrease value of liability warrants due to a decrease in our share price from \$3.74 at October 31, 2013 to \$3.18 at October 31, 2014, a smaller range of share prices used in the calculation of the BSM volatility input and the expiration of some warrants.

#### *Income Tax Benefit*

We may be eligible, from time to time, to receive cash from the sale of our Net Operating Losses ("NOLs") under the State of New Jersey NOL Transfer Program. In December 2015, the Company received a net cash amount of \$1,609,349 from the sale of its state NOLs and research and development tax credits for the period ended October 31, 2014.

In the year ended October 31, 2014, we received a net cash amount of \$625,563 from the sale of its state NOLs and research and development tax credits for the periods ended October 31, 2010 and 2011. In December 2014, we received a net cash amount of \$1,731,317 from the sale of our state NOLs and research and development tax credits for the years ended October 31, 2012 and 2013.

#### *Net Loss*

We reported a net loss of \$47.0 million, or \$1.68 per share basic and diluted for the year ended October 31, 2015 as compared to a net loss of \$16.5 million, or \$0.97 per share basic and diluted, for the year ended October 31, 2014.



## Liquidity and Capital Resources

Our major sources of cash have been proceeds from various public and private offerings of our common stock and option and warrant exercises. From October 2013 through October 2015, we raised approximately \$166.5 million in gross proceeds from various public and private offerings of our common stock. We have not yet commercialized any drug, and we may not become profitable. Our ability to achieve profitability depends on a number of factors, including our ability to complete our development efforts, obtain regulatory approvals for our drug, successfully complete any post-approval regulatory obligations, successfully compete with other available treatment options in the marketplace, overcome any clinical holds that the FDA may impose and successfully manufacture and commercialize our drug alone or in partnership. We may continue to incur substantial operating losses even after we begin to generate revenues from our drug candidates. We believe our current cash position is sufficient to fund our business plan approximately through calendar year end 2017. The actual amount of cash that we will need to operate is subject to many factors.

Since our inception through October 31, 2015, we reported accumulated net losses of approximately \$134.1 million and recurring negative cash flows from operations. We anticipate that we will continue to generate significant losses from operations for the foreseeable future.

Cash used in operating activities for the year ended October 31, 2015 was approximately \$24.1 million (including proceeds from the sale of our state NOLs and R&D tax credits of approximately \$1.7 million) primarily from spending associated with our clinical trial programs and general and administrative spending.

Cash used in operating activities for the year ended October 31, 2014 was approximately \$16.0 million (including proceeds from the sale of our state NOLs and R&D tax credits of approximately \$0.6 million) primarily from spending associated with our clinical trial programs and general and administrative spending. Total spending approximated \$13.9 million, including one-time non-recurring costs associated with our October 2013 financing, March 2014 financing, certain compensation costs and the settlement of legal claims.

Cash used in investing activities for the year ended October 31, 2015 was approximately \$47.4 million resulting from investments in held-to-maturity investments, purchases of property and equipment to support expansion, legal cost spending in support of our intangible assets (patents) and costs paid to Penn for patents.

Cash used in investing activities, for the year ended October 31, 2014, was approximately \$440,000 resulting from legal cost spending in support of our intangible assets (patents) and costs paid to Penn for patents.

Cash provided by financing activities for the year ended October 31, 2015 was approximately \$120.5 million, resulting primarily from registered direct offerings of 8,806,165 shares of our Common Stock resulting in net proceeds of approximately \$63.1 million and a public offering of 2,800,000 shares of Common Stock resulting in net proceeds of approximately \$56.7 million. In addition, the Company received approximately \$2.4 million from the proceeds received on option and warrant exercises. This was partially offset by approximately \$1.6 million of taxes paid related to the net share settlement of equity awards.

Cash provided by financing activities, for the year ended October 31, 2014, was approximately \$13.6 million, primarily resulting from the public offering of 4,692,000 shares of Common Stock at \$3.00 per share, resulting in net proceeds of \$12.6 million. In addition, we sold 306,122 shares of Common Stock to Aratana at a price of \$4.90 per share, resulting in net proceeds of approximately \$1.5 million. We also issued GBP 108,724 shares of Common Stock pursuant to a Stock Purchase Agreement with GBP, resulting in net proceeds of approximately \$0.4 million. This was partially offset by approximately \$0.9 million of taxes paid related to the net share settlement of equity awards.

Our capital resources and operations to date have been funded primarily with the proceeds from public, private equity and debt financings, NOL tax sales and income earned on investments and grants. We have sustained losses from operations in each fiscal year since our inception, and we expect losses to continue for the indefinite future, due to the substantial investment in research and development. As of October 31, 2015 and October 31, 2014, we had an accumulated deficit of \$134,054,259 and \$86,991,137, respectively and shareholders' equity of \$115,598,875 and \$20,629,986, respectively.

The Company believes its current cash position is sufficient to fund its business plan approximately through calendar year end 2017. We have based this estimate on assumptions that may prove to be wrong, and we could use available capital resources sooner than currently expected. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amount of increased capital outlays and operating expenses associated with completing the development of our current product candidates.

The Company recognizes it may need to raise additional capital in order to continue to execute its business plan. There is no assurance that additional financing will be available when needed or that management will be able to obtain financing on terms acceptable to the Company or whether the Company will become profitable and generate positive operating cash flow. If the Company is unable to raise sufficient additional funds, it will have to scale back its business plan, extend payables and reduce overhead until sufficient additional capital is raised to support further operations. There can be no assurance that such a plan will be successful.

### **Off-Balance Sheet Arrangements**

As of October 31, 2015, we had no off-balance sheet arrangements.

## **Critical Accounting Estimates**

The preparation of financial statements in accordance with GAAP accepted in the U.S. requires management to make estimates and assumptions that affect the reported amounts and related disclosures in the financial statements. Management considers an accounting estimate to be critical if:

it requires assumptions to be made that were uncertain at the time the estimate was made, and

changes in the estimate of difference estimates that could have been selected could have material impact in our results of operations or financial condition.

While we base our estimates and judgments on our experience and on various other factors that we believe to be reasonable under the circumstances, actual results could differ from those estimates and the differences could be material. The most significant estimates impact the following transactions or account balances: stock compensation, warrant liability valuation and impairment of intangibles.

### *Revenue Recognition*

The Company derived all of its revenue in 2014 from patent licensing. In general, these revenue arrangements provide for the payment of contractually determined fees in consideration for the grant of certain intellectual property rights for patented technologies owned or controlled by the Company. The intellectual property rights granted may be perpetual in nature, or upon the final milestones being met, or can be granted for a defined, relatively short period of time, with the licensee possessing the right to renew the agreement at the end of each contractual term for an additional minimum upfront payment. The Company recognizes licensing fees when there is persuasive evidence of a licensing arrangement, fees are fixed or determinable, delivery has occurred and collectability is reasonably assured.

An allowance for doubtful accounts is established based on the Company's best estimate of the amount of probable credit losses in the Company's existing license fee receivables, using historical experience. The Company reviews its allowance for doubtful accounts periodically. Past due accounts are reviewed individually for collectability.

Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. To date, this is yet to occur.

If product development is successful, the Company will recognize revenue from royalties based on licensees' sales of its products or products using its technologies. Royalties are recognized as earned in accordance with the contract terms when royalties from licensees can be reasonably estimated and collectability is reasonably assured. If royalties cannot be reasonably estimated or collectability of a royalty amount is not reasonably assured, royalties are recognized as revenue when the cash is received.

The Company recognizes revenue from milestone payments received under collaboration agreements when earned, provided that the milestone event is substantive, its achievability was not reasonably assured at the inception of the agreement, the Company has no further performance obligations relating to the event and collection is reasonably assured. If these criteria are not met, the Company recognizes milestone payments ratably over the remaining period of the Company's performance obligations under the collaboration agreement. All such recognized revenues are included in collaborative licensing and development revenue in the Company's consolidated statements of operations.

### *Stock Based Compensation*

We account for stock-based compensation using fair value recognition and record stock-based compensation as a charge to earnings net of the estimated impact of forfeited awards. As such, we recognize stock-based compensation cost only for those stock-based awards that are estimated to ultimately vest over their requisite service period, based on the vesting provisions of the individual grants.

The process of estimating the fair value of stock-based compensation awards and recognizing stock-based compensation cost over their requisite service period involves significant assumptions and judgments. We estimate the fair value of stock option awards on the date of grant using the Black-Scholes option-valuation model for the remaining awards, which requires that we make certain assumptions regarding: (i) the expected volatility in the market price of our Common Stock; (ii) dividend yield; (iii) risk-free interest rates; and (iv) the period of time employees are expected to hold the award prior to exercise (referred to as the expected holding period). As a result, if we revise our assumptions and estimates, our stock-based compensation expense could change materially for future grants.

Stock-based compensation for employees, executives and directors is measured based on the fair value of the shares issued on the date of grant and is to be recognized over the requisite service period in both research and development expenses and general and administrative expenses on the statement of operations. For non-employees, the fair value of the award is generally measured based on contractual terms.

### *Derivative Financial instruments*

We do not use derivative instruments to hedge exposures to cash flow, market or foreign currency risks. We evaluate all of our financial instruments to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. For derivative financial instruments that are accounted for as liabilities, the derivative instrument is initially recorded at its fair value and is then re-valued at each reporting date, with changes in the fair value reported in the statements of operations. The determination of fair value requires the use of judgment and estimates by management. For stock-based derivative financial instruments, we used the BSM which approximated the binomial lattice options pricing model to value the derivative instruments at inception and on subsequent valuation dates. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is evaluated at the end of each reporting period. Derivative liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the instrument could be required within 12 months of the balance sheet date. The variables used in the model are projected based on our historical data, experience, and other factors. Changes in any of these variables could result in material adjustments to the expense recognized for changes in the valuation of the warrant derivative liability.

### *Intangible Assets*

Intangible assets primarily consist of legal and filing costs associated with obtaining patents and licenses and are amortized on a straight-line basis over their remaining useful lives which are estimated to be twenty years from the effective dates of the University of Pennsylvania (Penn) License Agreements, beginning in July 1, 2002. These legal and filing costs are invoiced to the Company through Penn and its patent attorneys.

Management has reviewed its long-lived assets for impairment whenever events and circumstances indicate that the carrying value of an asset might not be recoverable and its carrying amount exceeds its fair value, which is based upon estimated undiscounted future cash flows. Net assets are recorded on the balance sheet for patents and licenses related to axalimogene filolisbac, ADXS-PSA and ADXS-HER2 and other products that are in development. However, if a competitor were to gain FDA approval for a treatment before us or if future clinical trials fail to meet the targeted endpoints, the Company would likely record an impairment related to these assets. In addition, if an application is rejected or fails to be issued, the Company would record an impairment of its estimated book value.

### *Income Taxes*

The Company uses the asset and liability method of accounting for income taxes in accordance with ASC Topic 740, "Income Taxes." Under this method, income tax expense is recognized for the amount of: (i) taxes payable or refundable for the current year and (ii) deferred tax consequences of temporary differences resulting from matters that have been recognized in an entity's financial statements or tax returns. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is provided to reduce the deferred tax assets reported if based on the weight of the available positive and negative evidence, it is more likely than not some portion or all of the deferred tax assets will not be realized.

ASC Topic 740-10-30 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements and prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC Topic 740-10-40 provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. The Company will classify as income tax expense any interest and penalties. The Company has no material uncertain tax positions for any of the reporting periods presented. The Company files tax returns in U.S. federal and state jurisdictions, including New Jersey, and is subject to audit by tax authorities beginning with the year ended October 31, 2012.



## **New Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, Revenue from Contracts with Customers. Amendments in this ASU create Topic 606, Revenue from Contracts with Customers, and supersede the revenue recognition requirements in Topic 605, Revenue Recognition, including most industry-specific revenue recognition guidance throughout the Industry Topics of the Codification. In addition, the amendments supersede the cost guidance in Subtopic 605-35, Revenue Recognition—Construction-Type and Production-Type Contracts, and create new Subtopic 340-40, Other Assets and Deferred Costs—Contracts with Customers. In summary, the core principle of Topic 606 is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This ASU is the final version of Proposed ASU 2011-230—Revenue Recognition (Topic 605) and Proposed ASU 2011–250—Revenue Recognition (Topic 605): Codification Amendments, both of which have been deleted. The amendments in this ASU are effective for the Company for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. The Company is currently evaluating the effects of ASU 2014-09 on the consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, *Disclosures of Uncertainties About an Entity’s Ability to Continue as a Going Concern*. The new standard provides guidance around management’s responsibility to evaluate whether there is substantial doubt about an entity’s ability to continue as a going concern and to provide related footnote disclosures. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. The Company does not expect that this guidance will have a material impact on its financial position, results of operations or cash flows.

### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk.**

Not Required.

### **Item 8: Financial Statements and Supplementary Data.**

The index to Financial Statements appears on the page immediately prior to page F-1, the Report of the Independent Registered Public Accounting Firms appears on page F-1, and the Financial Statements and Notes to Financial Statements appear on pages F-2 to F-26.

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

Not applicable.

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**Item 9A: Controls and Procedures.**

**Assessment of the Effectiveness of Internal Controls over Financial Reporting**

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework published in 2013. Based on its evaluation, our management concluded that our internal control over financial reporting was effective as of the end of the period covered by this Annual Report on Form 10-K.

**(a) Evaluation of Disclosure Controls and Procedures**

An evaluation was performed under the supervision and with the participation of our management, including our chief executive officer and our chief financial officer as to the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this report. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Based on that evaluation, the chief executive officer and the chief financial officer of the Company have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures are effective.

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. Internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;

(ii) provide reasonable assurance that the transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with the authorization of management and/or our Board of Directors; and

(iii) provide reasonable assurance regarding the prevention or timely detection of any unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

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

Marcum LLP, an independent registered public accounting firm, has audited the Consolidated Financial Statements included in this Annual Report on Form 10-K and, as part of the audit, has issued an attestation report, included herein, on the effectiveness of our internal control over financial reporting. See “Reports of Independent Registered Public Accounting Firm” included in this filing.

### **(c) Changes in Internal Control over Financial Reporting**

During the quarter ended October 31, 2015, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

*Limitations on the Effectiveness of Controls.* Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL  
OVER FINANCIAL REPORTING

To the Audit Committee of the  
Board of Directors and Shareholders of  
Advaxis, Inc.

We have audited Advaxis, Inc.'s (the "Company") internal control over financial reporting as of October 31, 2015, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management Annual Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become

inadequate because of changes in conditions, or that degree of compliance with the policies or procedures may deteriorate.

In our opinion, Advaxis, Inc. maintained, in all material aspects, effective internal control over financial reporting as of October 31, 2015, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheet as of October 31, 2015 and the related statements of operations, shareholders' equity, and cash flows for the year then ended of the Company and our report dated January 8, 2016 expressed an unqualified opinion on those financial statements.

*/s/ Marcum LLP*  
Marcum llp  
New York, NY  
January 8, 2016

**Item 9B: Other Information.**

None.

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## **PART III**

### **Item 10: Directors, Executive Officers and Corporate Governance.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2016 Annual Meeting of Stockholders.

### **Item 11: Executive Compensation.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2016 Annual Meeting of Stockholders.

### **Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2016 Annual Meeting of Stockholders.

### **Item 13: Certain Relationships and Related Transactions, and Director Independence.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2016 Annual Meeting of Stockholders.

### **Item 14: Principal Accountant Fees and Services.**

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2016 Annual Meeting of Stockholders.





**PART IV**

**Item 15: Exhibits and Financial Statements Schedules.**

See Index of Exhibits below. The Exhibits are filed with or incorporated by reference in this report.

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference.

| <b>Exhibit<br/>Number</b> | <b>Description of Exhibits</b>   |
|---------------------------|--|
| 3.1                       | Amended and Restated Certificate of Incorporation. Incorporated by reference to Annex C to DEF 14A Proxy Statement filed with the SEC on May 15, 2006.   |
| 3.2                       | Certificate of Designations of Preferences, Rights and Limitations of Series A Preferred Stock of the registrant, dated September 24, 2009. Incorporated by reference to Exhibit 4.1 to Current Report on Form 8-K filed with the SEC on September 25, 2009.                 |
| 3.3                       | Certificate of Designations of Preferences, Rights and Limitations of Series B Preferred Stock of the registrant, dated July 19, 2010. Incorporated by reference to Exhibit 4.1 to Current Report on Form 8-K filed with the SEC on July 20, 2010.                           |
| 3.4                       | Certificate of Amendment to Amended and Restated Certificate of Incorporation filed with the Delaware Secretary of State on August 16, 2012. Incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed with the SEC on August 17, 2012.                   |
| 3.5                       | Certificate of Amendment to Amended and Restated Certificate of Incorporation filed with the Delaware Secretary of State on July 11, 2013 (reverse stock split). Incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed with the SEC on July 15, 2013. |
| 3.6                       | Certificate of Amendment to Amended and Restated Certificate of Incorporation filed with the Delaware Secretary of State on July 12, 2013 (reverse stock split). Incorporated by reference to Exhibit 3.2 to Current Report on Form 8-K filed with the SEC on July 15, 2013. |
| 3.7                       | Certificate of Amendment to Amended and Restated Certificate of Incorporation filed with the Delaware Secretary of State on July 9, 2014. Incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K filed with the SEC on July 10, 2014.                        |
| 3.8                       | Amended and Restated Bylaws. Incorporated by reference to Exhibit 10.4 to Quarterly Report on Form 10-QSB filed with the SEC on September 13, 2006.  |

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- 4.1 Form of Common Stock certificate. Incorporated by reference to Exhibit 4.1 to Current Report on Form 8-K filed with the SEC on October 23, 2007.
- 4.2 Form of Amended and Restated Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K/A filed with the SEC on February 11, 2010.
- 4.3 Form of Common Stock Purchase Warrant, issued in the junior bridge financing. Incorporated by reference to Exhibit 4.12 to Registration Statement on Form S-1 (File No. 333-162632) filed with the SEC on October 22, 2009.
- 4.4 Form of Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.1 to Current Report on Form 8-K filed with the SEC on June 19, 2009.
- 4.5 Form of Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.3 to Current Report on Form 8-K/A filed with the SEC on February 11, 2010.
- 4.6 Form of Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K filed with the SEC on November 12, 2010.
- 4.7 Form of Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K filed with the SEC on May 9, 2011.
- 4.8 Form of Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.1 to Current Report on Form 8-K filed with the SEC on August 31, 2011.
- 4.9 Form of Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K filed with the SEC on November 2, 2011.

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| Exhibit Number | Description of Exhibits  |
|----------------|--|
| 4.10           | Form of Common Stock Purchase Warrant. Incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K filed with the SEC on January 5, 2012.   |
| 4.11           | Form of Common Stock Purchase Warrant issued pursuant to the Exchange Agreements, dated as of May 14, 2012, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 4.1 to Current Report on Form 8-K filed with the SEC on May 18, 2012.     |
| 4.12           | Form of Common Stock Purchase Warrant issued pursuant to the note purchase agreement, dated as of May 14, 2012, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 4.3 to Current Report on Form 8-K filed with the SEC on May 18, 2012. |
| 4.13           | Form of Common Stock Purchase Warrant issued to Dr. James Patton. Incorporated by reference to Exhibit 4.23 to Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-183682) filed with the SEC on September 11, 2012.   |
| 4.14           | Form of Secured Promissory Note issued pursuant to the Securities Purchase Agreement, dated as of December 13, 2012, by and between Advaxis, Inc. and Tonaquint, Inc. Incorporated by reference to Exhibit 4.1 to Quarterly Report on Form 10-Q filed with the SEC on March 25, 2013.                                |
| 4.15           | Form of Warrant to Purchase Shares of Common Stock issued pursuant to the Securities Purchase Agreement, dated as of December 13, 2012, by and between Advaxis, Inc. and Tonaquint, Inc. Incorporated by reference to Exhibit 4.2 to Quarterly Report on Form 10-Q filed with the SEC on March 25, 2013.             |
| 4.16           | Form of Warrant Agency Agreement by and between Advaxis, Inc. and Securities Transfer Corporation and Form of Warrant Certificate. Incorporated by reference to Exhibit 4.18 to Registration Statement on Form S-1/A (File No. 333-188637) filed with the SEC on September 27, 2013.                                 |
| 4.17           | Form of Representative's Warrant. Incorporated by reference to Exhibit 4.19 to Registration Statement on Form S-1/A (File No. 333-188637) filed with the SEC on September 27, 2013.  |
| 4.18           | Form of Warrant to Purchase 30,154 Shares of Common Stock issued September 17, 2013 pursuant to an engagement letter termination agreement. Incorporated by reference to Exhibit 4.20 to Registration Statement on Form S-1/A (File No. 333-188637) filed with the SEC on September 27, 2013.                        |
| 4.19           | Form of Warrant Agency Agreement between Advaxis, Inc. and Securities Transfer Corporation dated October 22, 2013 and Form of Warrant Certificate. Incorporated by reference to Exhibits 10.1 and 10.2 to Current Report on Form 8-K filed with the SEC on October 22, 2013.   |
| 4.20           | Common Stock purchase warrant, dated as of March 19, 2014, by and between Advaxis, Inc. and Aratana Therapeutics, Inc. Incorporated by reference to Exhibit 4.1 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.  |

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- 4.21 Form of Representative's Warrant related to the Underwriting Agreement, dated as of March 31, 2014, by and between Advaxis, Inc. and Aegis Capital Group. Incorporated by reference to Exhibit 4.2 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.
- 10.1 2004 Stock Option Plan of the registrant. Incorporated by reference to Exhibit 4.1 to Report on Form S-8 filed with the SEC on December 1, 2005.
- 10.2 2005 Stock Option Plan of the registrant. Incorporated by reference to Annex A to DEF 14A Proxy Statement filed with the SEC on May 15, 2006.
- 10.3 License Agreement, between the Trustees of the University of Pennsylvania and the registrant dated as of June 17, 2002, as Amended and Restated on February 13, 2007. Incorporated by reference to Exhibit 10.11 to Annual Report on Form 10-KSB filed with the SEC on February 13, 2007.
- 10.4 Sponsored Research Agreement dated November 1, 2006 by and between the Trustees of the University of Pennsylvania (Dr. Paterson Principal Investigator) and the registrant. Incorporated by reference to Exhibit 10.44 to Annual Report on 10-KSB filed with the SEC on February 13, 2007.
- 10.5 Agreement, dated July 7, 2003, by and between Cobra Biomanufacturing PLC and Advaxis, Inc. Incorporated by reference to Exhibit 10.16 to Pre-Effective Amendment No. 4 filed on June 9, 2005 to Registration Statement on Form SB-2 (File No. 333-122504).

| Exhibit Number | Description of Exhibits  |
|----------------|--|
| 10.6           | Royalty Agreement, dated as of May 11, 2003, by and between Cobra Bio-Manufacturing PLC and the registrant. Incorporated by reference to Exhibit 10.28 to Pre-Effective Amendment No. 4 filed on June 9, 2005 to Registration Statement on Form SB-2 (File No. 333-122504).  |
| 10.7           | Technical/Quality Agreement dated May 6, 2008 by and between Vivalogics GmbH and the registrant. Incorporated by reference to Exhibit 10.57 to Annual Report on Form 10-KSB filed with the SEC on January 29, 2009.  |
| 10.8           | Master Service Agreement dated April 7, 2008 by and between Vivalogics GmbH and the registrant. Incorporated by reference to Exhibit 10.58 to Annual Report on Form 10-KSB filed with the SEC on January 29, 2009.   |
| 10.9           | Amended and Restated 2009 Stock Option Plan of the registrant. Incorporated by reference to Annex A to DEF 14A Proxy Statement filed with the SEC on April 30, 2010.   |
| 10.10          | Second Amendment to the Amended and Restated Patent License Agreement between the registrant and the Trustees of the University of Pennsylvania dated as of May 10, 2010. Incorporated by reference to Exhibit 10.1 to Quarterly Report on Form 10-Q filed with the SEC on June 3, 2010.                           |
| 10.11          | Note purchase agreement, dated as of May 9, 2011, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 10.1 to Amendment to Current Report on Form 8-K/A filed with the SEC on May 12, 2011.   |
| 10.12          | 2011 Omnibus Incentive Plan of registrant. Incorporated by reference to Annex A to DEF 14A Proxy Statement filed with the SEC on August 29, 2011.  |
| 10.13          | 2011 Employee Stock Purchase Plan. Incorporated by reference to Annex B to DEF 14A Proxy Statement filed with the SEC on August 29, 2011.  |
| 10.14          | Amendment No. 1 to the Advaxis, Inc. 2011 Employee Stock Purchase Plan. Incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed with the SEC on December 20, 2011.   |
| 10.15          | Exchange Agreement, dated as of May 14, 2012, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed with the SEC on May 18, 2012.  |
| 10.16          | Amendment, Consent and Waiver Agreement, dated as of May 14, 2012, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 10.2 to Current Report on Form 8-K filed with the SEC on May 18, 2012.   |
| 10.17          | Form of Convertible Promissory Note issued pursuant to the note purchase agreement, dated as of May 14, 2012, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 4.2 to Current Report on Form 8-K filed with the SEC on May 18, 2012. |

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- 10.18 Note purchase agreement, dated as of May 14, 2012, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 10.3 to Current Report on Form 8-K filed with the SEC on May 18, 2012.
- 10.19 Registration Rights Agreement, dated as of May 14, 2012, by and between Advaxis, Inc. and each investor identified on the signature pages thereto. Incorporated by reference to Exhibit 10.4 to Current Report on Form 8-K filed with the SEC on May 18, 2012.
- 10.20 Amendment No. 1, dated as of March 26, 2007, to the License Agreement, between the Trustees of the University of Pennsylvania and Advaxis, Inc. dated as of June 17, 2002, as amended and restated on February 13, 2007. Incorporated by reference to Exhibit 10.1 to Quarterly Report on Form 10-Q filed with the SEC on June 14, 2012.
- 10.21 Clinical Trial Services Agreement, dated December 13, 2009, by and between the Gynecologic Oncology Group and Advaxis, Inc. Incorporated by reference to Exhibit 10.4 to Quarterly Report on Form 10-Q filed with the SEC on June 14, 2012.
- 10.22 Amendment No. 3, dated as of December 12, 2011, to the License Agreement, between the Trustees of the University of Pennsylvania and Advaxis, Inc. dated as of June 17, 2002, as amended and restated on February 13, 2007. Incorporated by reference to Exhibit 10.5 to Quarterly Report on Form 10-Q filed with the SEC on June 14, 2012.
- 10.23 Amendment No. 1 to 2011 Omnibus Incentive Plan of registrant. Incorporated by reference to Annex B to DEF 14A Proxy Statement filed with the SEC on July 19, 2012.

| Exhibit Number | Description of Exhibits   |
|----------------|---|
| 10.24          | Employment Agreement by and between Advaxis, Inc. and Daniel J. O'Connor, dated August 19, 2013. Incorporated by reference to Exhibit 10.2 to Current Report on Form 8-K filed with the SEC on August 20, 2013.   |
| 10.25          | Indemnification Agreement. Incorporated by reference to Exhibit 10.3 to Current Report on Form 8-K filed with the SEC on August 20, 2013.   |
| 10.26‡         | Employment Agreement between Advaxis, Inc. and Robert Petit, dated September 26, 2013. Incorporated by reference to Exhibit 10.70 to Registration Statement on Form S-1/A (File No. 333-188637) filed with the SEC on September 27, 2013.               |
| 10.27‡         | Employment Agreement by and between Advaxis, Inc. and Gregory T. Mayes, III, dated October 25, 2013. Incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed with the SEC on October 29, 2013.                                    |
| 10.28‡         | Restricted Stock Agreement between Advaxis, Inc. and Gregory T. Mayes, III, dated October 25, 2013. Incorporated by reference to Exhibit 10.2 to Current Report on Form 8-K filed with the SEC on October 29, 2013.                                     |
| 10.29          | Exclusive License and Technology Transfer Agreement by and between Advaxis, Inc. and Global BioPharma, Inc., dated December 9, 2013. Incorporated by reference to Exhibit 10.79 to Annual Report on Form 10-K/A filed with the SEC on February 6, 2014. |
| 10.30‡         | Amendment No. 1, dated as of December 19, 2013, to the Employment Agreement by and between Advaxis, Inc. and Daniel J. O'Connor. Incorporated by reference to Exhibit 10.82 to Annual Report on Form 10-K/A filed with the SEC on February 6, 2014.     |
| 10.31‡         | Amendment No. 1, dated as of December 19, 2013, to the Employment Agreement by and between Advaxis, Inc. and Gregory T. Mayes, III. Incorporated by reference to Exhibit 10.82 to Annual Report on Form 10-K/A filed with the SEC on February 6, 2014.  |
| 10.32‡         | Amendment No. 1, dated as of December 19, 2013, to the Employment Agreement by and between Advaxis, Inc. and Mark J. Rosenblum. Incorporated by reference to Exhibit 10.82 to Annual Report on Form 10-K/A filed with the SEC on February 6, 2014.      |
| 10.33‡         | Amendment No. 1, dated as of December 19, 2013, to the Employment Agreement by and between Advaxis, Inc. and Robert G. Petit. Incorporated by reference to Exhibit 10.82 to Annual Report on Form 10-K/A filed with the SEC on February 6, 2014.        |
| 10.34          | Distribution and Supply Agreement, dated as of January 20, 2014, by and between Advaxis, Inc. and Biocon, Limited. Incorporated by reference to Exhibit 10.7 to Quarterly Report on Form 10-Q filed with the SEC on March 17, 2014.                     |
| 10.35          | Exclusive License Agreement, dated March 19, 2014, by and between Advaxis, Inc. and Aratana Therapeutics, Inc. Incorporated by reference to Exhibit 10.1 to Quarterly Report on Form 10-Q filed with  |



the SEC on June 10, 2014.

10.36‡ Employment Agreement, dated March 24, 2014, by and between Advaxis, Inc. and Sara M. Bonstein. Incorporated by reference to Exhibit 10.2 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.

10.37‡ Separation Agreement and General Release, dated March 24, 2014, between Advaxis, Inc. and Mark J. Rosenblum. Incorporated by reference to Exhibit 10.3 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.

10.38‡ Amendment No. 2, dated as of June 5, 2014, to the Employment Agreement by and between Advaxis, Inc. and Daniel J. O'Connor. Incorporated by reference to Exhibit 10.4 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.

10.39‡ Amendment No. 2, dated as of June 5, 2014, to the Employment Agreement by and between Advaxis, Inc. and Gregory T. Mayes. Incorporated by reference to Exhibit 10.5 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.

| Exhibit Number | Description of Exhibits  |
|----------------|--|
| 10.40          | Amendment No. 2, dated as of June 5, 2014, to the Employment Agreement by and between Advaxis, Inc. and Robert G. Petit. Incorporated by reference to Exhibit 10.6 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.                                     |
| 10.41          | Amendment No. 1, dated as of June 5, 2014, to the Employment Agreement by and between Advaxis, Inc. and Sara M. Bonstein. Incorporated by reference to Exhibit 10.8 to Quarterly Report on Form 10-Q filed with the SEC on June 10, 2014.                                    |
| 10.42          | Employment Agreement, dated October 20, 2014, by and between Advaxis, Inc. and David J. Mauro. Incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed with the SEC on October 21, 2014  |
| 10.43          | Form of Restricted Stock Agreement between Advaxis, Inc. and David J. Mauro, dated October 20, 2014. Incorporated by reference to Exhibit 10.2 to Current Report on Form 8-K filed with the SEC on October 21, 2014.   |
| 10.44          | Clinical Trial Collaboration Agreement, dated July 21, 2014, by and between Advaxis, Inc. and MedImmune, LLC. Incorporated by reference to Exhibit 10.1 to Quarterly Report on Form 10-Q filed with the SEC on September 9, 2014.  |
| 10.45          | 5 <sup>th</sup> Amendment to the Amended & Restated License Agreement, dated July 25, 2014, by and between Advaxis, Inc. and University of Pennsylvania. Incorporated by reference to Exhibit 10.2 to Quarterly Report on Form 10-Q filed with the SEC on September 9, 2014. |
| 10.46          | Amendment No. 2 to the Advaxis, Inc. 2011 Omnibus Incentive Plan, effective July 9, 2014. Incorporated by reference to Annex A to Current Report on Schedule 14A filed with the SEC on May 20, 2014.   |
| 10.47          | Amended and Restated 2011 Omnibus Incentive Plan, dated September 8, 2014. Incorporated by reference to Exhibit 10.4 to Quarterly Report on Form 10-Q filed with the SEC on September 9, 2014.   |
| 10.48          | Master Services Agreement for Technical Transfer and Clinical Supply, dated February 5, 2014, by and between Advaxis, Inc. and SynCo Bio Partners B.V. Incorporated by reference to Exhibit 10.1 to Current Report to Form 8-K filed with the SEC on February 11, 2014.      |
| 10.49          | Clinical Trial Collaboration and Supply Agreement by and between Advaxis, Inc. and Merck & Co. dated August 22, 2014. Incorporated by reference to Exhibit 10.101 to Annual Report on Form 10-K filed with the SEC on January 6, 2015  |
| 10.50          | Manufacturing Services Agreement by and between Advaxis, Inc. and IDT Biologika dated September 8, 2014. Incorporated by reference to Exhibit 10.102 to Annual Report on Form 10-K filed with the SEC on January 6, 2015   |
| 10.51          | Clinical Study Collaboration Agreement between Advaxis, Inc and Incyte Corporation. Dated February 10, 2015. Incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed with the SEC  |

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on February 12, 2015.

- 10.52‡ Amendment No. 1, dated as of April 17, 2015, to the Employment Agreement by and between Advaxis, Inc and David J. Mauro. Incorporated by reference to Exhibit 10.2 to Quarterly Report on Form 10-Q filed with the SEC on June 15, 2015.
- 10.53‡ Amendment No. 2, dated as of April 17, 2015, to the Employment Agreement by and between Advaxis, Inc and Sara M. Bonstein. Incorporated by reference to Exhibit 10.3 to Quarterly Report on Form 10-Q filed with the SEC on June 15, 2015.
- 10.54‡ Amendment No. 3, dated as of April 17, 2015, to the Employment Agreement by and between Advaxis, Inc and Daniel J. O'Connor. Incorporated by reference to Exhibit 10.4 to Quarterly Report on Form 10-Q filed with the SEC on June 15, 2015.
- 10.55‡ Amendment No. 3, dated as of April 17, 2015, to the Employment Agreement by and between Advaxis, Inc and Gregory T. Mayes. Incorporated by reference to Exhibit 10.5 to Quarterly Report on Form 10-Q filed with the SEC on June 15, 2015.
- 10.56‡ Amendment No. 3, dated as of April 17, 2015, to the Employment Agreement by and between Advaxis, Inc and Robert G. Petit. Incorporated by reference to Exhibit 10.6 to Quarterly Report on Form 10-Q filed with the SEC on June 15, 2015.
- 10.57\*\*\* Exclusive License Agreement, dated August 25, 2015, by and between Advaxis, Inc. and Knight Therapeutics, Inc.
- 10.58 Securities Purchase Agreement, dated as of August 25, 2015, between Advaxis, Inc., Knight Therapeutics Inc., and Sectoral Asset Management. Incorporated by reference to Exhibit 10.1 to Current Report on Form 8-K filed with the SEC on August 28, 2015.
- 10.59‡\* Amendment No. 4, dated as of December 31, 2015, to the Employment Agreement by and between Advaxis, Inc and Robert G. Petit.
- 10.60‡\* Amendment No. 3, dated as of December 31, 2015, to the Employment Agreement by and between Advaxis, Inc and Sara M. Bonstein.
- 10.61‡\* Amendment No. 4, dated as of December 31, 2015, to the Employment Agreement by and between Advaxis, Inc and Daniel J. O'Connor.
- 10.62‡\* Amendment No. 4, dated as of December 31, 2015, to the Employment Agreement by and between Advaxis, Inc and Gregory T. Mayes.

| <b>Exhibit Number</b> | <b>Description of Exhibits</b>   |
|-----------------------|--|
| 14.1                  | Code of Business Conduct and Ethics dated July 9, 2014. Incorporated by reference to Exhibit 14.1 to Current Report on Form 8-K filed with the SEC on July 10, 2014. |
| 31.1*                 | Certification of Chief Executive Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002   |
| 31.2*                 | Certification of Chief Financial Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002   |
| 32.1*                 | Certification of Chief Executive Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002   |
| 32.2*                 | Certification of Chief Financial Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002   |
| 101.INS**             | XBRL Instance Document   |
| 101.SCH**             | XBRL Taxonomy Extension Schema Document  |
| 101.CAL**             | XBRL Taxonomy Extension Calculation Linkbase Document  |
| 101.DEF**             | XBRL Taxonomy Extension Definitions Linkbase Document  |
| 101.LAB**             | XBRL Taxonomy Extension Label Linkbase Document  |
| 101.PRE**             | XBRL Taxonomy Extension Presentation Linkbase Document   |

\* Filed herewith.

\*\* Furnished herewith.

Filed herewith. Confidential treatment requested under 17 C.F.R. §§200.80(b)(4) and Rule 24b-2. The confidential \*\*\*portions of this exhibit have been omitted and are marked accordingly. The confidential portions have been provided separately to the SEC pursuant to the confidential treatment request.

‡ Denotes management contract or compensatory plan or arrangement.

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized, in Princeton, Mercer County, State of New Jersey, on this 8<sup>th</sup> day of January 2016.

ADVAXIS, INC.

By: */s/ Daniel J. O'Connor*

Daniel J. O'Connor, Chief Executive Officer and Director

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Daniel J. O'Connor and Sara M. Bonstein (with full power to act alone), as his true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, lawfully do or cause to be done by virtue hereof.

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

| SIGNATURE   | Title  | DATE            |
|---|--|-----------------|
| <i>/s/ Daniel J. O'Connor</i><br>Daniel J. O'Connor | President, Chief Executive Officer and Director<br>(Principal Executive Officer)               | January 8, 2016 |
| <i>/s/ Sara Bonstein</i><br>Sara Bonstein           | Chief Financial Officer, Senior Vice President<br>(Principal Financial and Accounting Officer) | January 8, 2016 |
| <i>/s/ David Sidransky</i><br>David Sidransky       | Chairman of the Board  | January 8, 2016 |
| <i>/s/ James Patton</i><br>James Patton             | Vice Chairman of the Board   | January 8, 2016 |

|   |          |                 |
|---|----------|-----------------|
| <i>/s/ Richard Berman</i><br>Richard Berman | Director | January 8, 2016 |
| <i>/s/ Thomas McKearn</i><br>Thomas McKearn | Director | January 8, 2016 |
| <i>/s/ Samir Khleif</i><br>Samir Khleif     | Director | January 8, 2016 |
| <i>/s/ Roni Appel</i><br>Roni Appel         | Director | January 8, 2016 |
| <i>/s/ Thomas Ridge</i><br>Thomas Ridge     | Director | January 8, 2016 |

**ADVAXIS, INC.**

**FINANCIAL STATEMENTS**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee of the  
Board of Directors and Shareholders of  
Advaxis, Inc.

We have audited the accompanying balance sheets of Advaxis, Inc. (the “Company”) as of October 31, 2015 and 2014, and the related statements of operations, shareholders’ equity and cash flows for the years then ended. These financial 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. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Advaxis, Inc as of October 31, 2015 and 2014, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Advaxis, Inc.’s internal control over financial reporting as of October 31, 2015, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013 and our report dated January 8, 2016 expressed an unqualified opinion on the effectiveness of the Company’s internal control over financial reporting.

*/s/ Marcum llp*  
Marcum llp  
New York, NY  
January 8, 2016





**ADVAXIS, INC.****BALANCE SHEETS**

|  | October 31,<br>2015  | 2014                |
|--|----------------------|---------------------|
| <b>ASSETS</b>  |                      |                     |
| Current Assets:  |                      |                     |
| Cash and Cash Equivalents  | \$66,561,683         | \$17,606,860        |
| Investments – Held-to-Maturity   | 45,594,495           | -                   |
| Interest Receivable  | 145,299              | -                   |
| Prepaid Expenses   | 338,841              | 182,978             |
| Income Tax Receivable  | 1,609,349            | 1,731,317           |
| Deferred Expenses - Current  | 749,790              | 964,724             |
| Other Current Assets   | 15,116               | 8,182               |
| Total Current Assets   | 115,014,573          | 20,494,061          |
| Property and Equipment (net of accumulated depreciation)   | 1,087,244            | 77,369              |
| Intangible Assets (net of accumulated amortization)  | 3,355,033            | 2,767,945           |
| Other Assets   | 148,843              | 38,438              |
| <b>TOTAL ASSETS</b>  | <b>\$119,605,693</b> | <b>\$23,377,813</b> |
| <b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>  |                      |                     |
| Current Liabilities:   |                      |                     |
| Accounts Payable   | \$696,117            | \$1,411,058         |
| Accrued Expenses   | 3,191,941            | 1,241,796           |
| Short-term Convertible Notes and Fair Value of Embedded Derivative   | 29,549               | 62,882              |
| Total Current Liabilities  | 3,917,607            | 2,715,736           |
| Common Stock Warrant Liability   | 89,211               | 32,091              |
| Total Liabilities  | 4,006,818            | 2,747,827           |
| Commitments and Contingencies – Note 11  |                      |                     |
| Shareholders' Equity:  |                      |                     |
| Preferred Stock, \$0.001 par value; 5,000,000 shares authorized; Series B Preferred Stock; 0 shares issued and outstanding at October 31, 2015 and 2014. Liquidation preference of \$0 at October 31, 2015 and 2014. | -                    | -                   |
| Common Stock - \$0.001 par value; 45,000,000 shares authorized, 33,591,882 shares issued and 33,574,963 shares outstanding at October 31, 2015 and 19,630,139 shares issued and outstanding at October 31, 2014.     | 33,592               | 19,630              |
| Additional Paid-In Capital   | 249,807,303          | 107,601,493         |
| Treasury Stock, at cost, 16,919 shares at October 31, 2015 and 0 shares October 31, 2014   | (187,761 )           | -                   |
| Accumulated Deficit  | (134,054,259)        | (86,991,137 )       |

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|  |               |              |
|--|---------------|--------------|
| Total Shareholders' Equity               | 115,598,875   | 20,629,986   |
| TOTAL LIABILITIES & SHAREHOLDERS' EQUITY | \$119,605,693 | \$23,377,813 |

The accompanying notes should be read in conjunction with the financial statements.

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**ADVAXIS, INC.****Statements of Operations**

|   | Year Ended October 31, |                |
|---|------------------------|----------------|
|   | 2015                   | 2014           |
| Revenue   | \$-                    | \$1,000,000    |
| Research and Development Expenses                                       | 24,220,610             | 8,687,168      |
| General and Administrative Expenses                                     | 24,450,047             | 11,851,410     |
| Total Operating Expenses  | 48,670,657             | 20,538,578     |
| Loss from Operations  | (48,670,657)           | (19,538,578)   |
| Other Income (Expense):   |                        |                |
| Interest Income   | 114,219                | 36,305         |
| Net Changes in Fair Value of Derivative Liabilities                     | (48,950 )              | 619,089        |
| Other Income (Expense), Net   | (35,079 )              | 990            |
| Net Loss Before Income Tax Benefit                                      | (48,640,467)           | (18,882,194)   |
| Income Tax Benefit  | 1,609,349              | 2,356,880      |
| Net Loss  | \$(47,031,118)         | \$(16,525,314) |
| Net Loss per Common Share, Basic and Diluted                            | \$(1.68 )              | \$(0.97 )      |
| Weighted Average Number of Common Shares Outstanding, Basic and Diluted | 28,026,197             | 17,106,577     |

The accompanying notes should be read in conjunction with the financial statements.

## ADVAXIS, INC.

## STATEMENTS OF SHAREHOLDERS' EQUITY

|   | Preferred<br>Stock<br>Shares | Common<br>Stock<br>Shares | Common<br>Stock<br>Amount | Additional<br>Paid-in<br>Capital | Treasury<br>Stock<br>Shares | Treasury<br>Stock<br>Amount | Accumulated<br>Deficit | Shareholders'<br>Equity      |
|---|------------------------------|---------------------------|---------------------------|----------------------------------|-----------------------------|-----------------------------|------------------------|------------------------------|
| Balance at<br>October 31,<br>2013   | -                            | \$-                       | 13,719,861                | \$13,720                         | \$88,454,245                | -                           | \$-                    | \$(70,465,823 ) \$18,002,142 |
| Stock<br>compensation<br>to employees,<br>directors and<br>consultants                |                              | 501,651                   | 502                       | 3,839,202                        |                             |                             |                        | 3,839,704                    |
| Tax<br>withholdings<br>paid related to<br>net share<br>settlement of<br>equity awards |                              |                           |                           | (959,425 )                       |                             |                             |                        | (959,425 )                   |
| Common<br>Stock issued<br>upon exercise<br>of warrants                                |                              | 50                        | -                         | 250                              |                             |                             |                        | 250                          |
| Common<br>Stock issued to<br>consultants  |                              | 247,218                   | 247                       | 1,551,186                        |                             |                             |                        | 1,551,433                    |
| Issuance of<br>shares to<br>employees<br>under ESPP<br>Plan                           |                              | 2,110                     | 2                         | 6,249                            |                             |                             |                        | 6,251                        |
| Issuance of<br>shares to<br>investors<br>under stock<br>purchase<br>agreements        |                              | 467,249                   | 467                       | 2,033,670                        |                             |                             |                        | 2,034,137                    |
| Advaxis<br>Public<br>Offering   |                              | 4,692,000                 | 4,692                     | 12,676,116                       |                             |                             |                        | 12,680,808                   |
| Net Loss  |                              |                           |                           |                                  |                             |                             | (16,525,314 )          | (16,525,314 )                |
| Balance at<br>October 31,<br>2014   | -                            | \$-                       | 19,630,139                | \$19,630                         | \$107,601,493               | -                           | \$-                    | \$(86,991,137 ) \$20,629,986 |

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|  |           |       |              |           |             |           |  |              |
|--|-----------|-------|--------------|-----------|-------------|-----------|--|--------------|
| Stock compensation to employees, directors and consultants                 | 789,438   | 790   | 16,667,800   |           |             |           |  | 16,668,590   |
| Tax withholdings paid related to net share settlement of equity awards     |           |       | (1,375,979 ) |           |             |           |  | (1,375,979 ) |
| Treasury stock purchased to pay employee withholdings on equity awards     |           |       |              | (114,445) | (1,388,086) |           |  | (1,388,086 ) |
| Treasury shares sold to pay for employee tax withholdings on equity awards |           |       | 16,273       | 97,526    | 1,200,325   | (32,004 ) |  | 1,184,594    |
| Common Stock issued upon exercise of options                               | 65,167    | 65    | 58,335       |           |             |           |  | 58,400       |
| Common Stock issued upon exercise of warrants                              | 691,268   | 691   | 2,341,758    |           |             |           |  | 2,342,449    |
| Common Stock issued to consultants   | 378,538   | 379   | 4,707,061    |           |             |           |  | 4,707,440    |
| Conversion of notes payable into common stock                              | 4,104     | 4     | 39,928       |           |             |           |  | 39,932       |
| Issuance of shares to employees under ESPP Plan                            | 7,063     | 7     | 28,784       |           |             |           |  | 28,791       |
| Advaxis registered direct offerings  | 8,806,165 | 8,806 | 63,046,722   |           |             |           |  | 63,055,528   |
| Advaxis Public Offering  | 3,220,000 | 3,220 | 56,675,128   |           |             |           |  | 56,678,348   |

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|             |   |     |            |          |               |           |               |                 |
|-------------|---|-----|------------|----------|---------------|-----------|---------------|-----------------|
| Net Loss    |   |     |            |          |               |           | (47,031,118 ) | (47,031,118 )   |
| Balance at  |   |     |            |          |               |           |               |                 |
| October 31, | - | \$- | 33,591,882 | \$33,592 | \$249,807,303 | (16,919 ) | \$(187,761 )  | \$(134,054,259) |
| 2015        |   |     |            |          |               |           |               | \$115,598,875   |

The accompanying notes should be read in conjunction with the financial statements.

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**ADVAXIS, INC.****Statement of Cash Flows**

|   | Year ended October 31, |                |
|---|------------------------|----------------|
|   | 2015                   | 2014           |
| <b>OPERATING ACTIVITIES</b>   |                        |                |
| Net Loss  | \$(47,031,118 )        | \$(16,525,314) |
| Adjustments to reconcile net loss to net cash used in operating activities: |                        |                |
| Non-cash charges to consultants and employees for options and stock         | 21,431,030             | 5,365,610      |
| Non-cash interest expense   | -                      | 51             |
| Loss (Gain) on change in value of warrants and embedded derivative          | 48,950                 | (619,089 )     |
| Warrant expense   | 8,170                  | 4,446          |
| (Gain) on disposal of property and equipment                                | (10,000 )              | -              |
| Loss on write-off of intangible assets                                      | 28,480                 | -              |
| Settlement expense  | -                      | 34,125         |
| Employee Stock Purchase Plan  | 28,791                 | 6,251          |
| Depreciation expense  | 59,033                 | 27,611         |
| Amortization expense of intangibles   | 206,357                | 175,686        |
| Amortization of premium on held-to-maturity investments                     | 60,608                 | -              |
| Debt conversion expense   | 6,599                  | -              |
| (Gain) on note retirement   | -                      | (6,243 )       |
| Change in operating assets and liabilities:                                 |                        |                |
| Interest receivable   | (145,299 )             | -              |
| Prepaid expenses  | (155,863 )             | (151,723 )     |
| Taxes receivable  | 121,968                | (1,731,317     |
| Other current assets  | 8,066                  | -              |
| Deferred expenses   | 214,934                | (617,676       |
| Security deposit  | (110,405 )             |                |
| Accounts payable and accrued expenses                                       | 1,094,155              | (1,948,987 )   |
| Interest payable  | -                      | (98,192 )      |
| Net cash used in operating activities                                       | (24,135,544 )          | (16,084,761)   |
| <b>INVESTING ACTIVITIES</b>   |                        |                |
| Investments in held to maturity investments                                 | (45,655,103 )          | -              |
| Purchase of property and equipment  | (972,859 )             | (24,595 )      |
| Cost of intangible assets   | (821,925 )             | (415,080 )     |
| Net cash used in Investing Activities                                       | (47,449,887 )          | (439,675 )     |
| <b>FINANCING ACTIVITIES</b>   |                        |                |
| Repayment of Officer Loan   | -                      | (64,926 )      |
| Proceeds from exercise of options   | 58,400                 | -              |
| Proceeds from the exercise of warrants                                      | 2,342,449              | 250            |
| Net proceeds of issuance of Common Stock                                    | 119,733,876            | 14,580,808     |
| Tax withholdings paid related to net share settlement of equity awards      | (1,375,979 )           | (936,898 )     |
| Treasury stock purchased to pay employee withholdings on equity awards      | (1,388,086 )           | -              |



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|  |              |              |
|--|--------------|--------------|
| Treasury shares sold to pay for employee tax withholdings on equity awards | 1,169,594    | -            |
| Net cash provided by Financing Activities                                  | 120,540,254  | 13,579,234   |
| Net increase (decrease) in Cash and Cash Equivalents                       | 48,954,823   | (2,945,202 ) |
| Cash and Cash Equivalents at beginning of year                             | 17,606,860   | 20,552,062   |
| Cash and Cash Equivalents at end of year                                   | \$66,561,683 | \$17,606,860 |

The accompanying notes should be read in conjunction with the financial statements.

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**Supplemental Disclosures of Cash Flow Information**

|                        | Year Ended<br>October 31,<br>201 <del>5</del> 2014 |           |
|------------------------|--|-----------|
| Cash paid for Interest | \$   | \$103,445 |
| Cash paid for Taxes    | \$-  | \$-       |

**Supplemental Schedule of Noncash Investing and Financing Activities**

|   | Year Ended<br>October 31,<br>2015 |  | 2014      |
|---|-----------------------------------|--|-----------|
| Accounts Payable and Accrued Expenses settled with Common Stock | \$-                               |  | \$103,012 |
| Conversion of notes payable into Common Stock                   | \$39,932                          |  | \$-       |
| Sale of treasury shares pending settlement                      | \$15,000                          |  | \$-       |

The accompanying notes should be read in conjunction with the financial statements.

## ADVAXIS, INC.

### NOTES TO FINANCIAL STATEMENTS

#### 1. NATURE OF OPERATIONS AND BASIS OF PRESENTATION

Advaxis, Inc. (“Advaxis” or the “Company”) is a clinical stage biotechnology company focused on the discovery, development and commercialization of proprietary *Lm*-LLO cancer immunotherapies. These immunotherapies are based on a platform technology that utilizes live attenuated *Listeria monocytogenes* (“*Lm*” or “Listeria”) bioengineered to secrete antigen/adjuvant fusion proteins. These *Lm*-LLO strains are believed to be a significant advancement in immunotherapy as they integrate multiple functions into a single immunotherapy as they access and direct antigen presenting cells to stimulate anti-tumor T-cell immunity, stimulate and activate the immune system with the equivalent of multiple adjuvants, and simultaneously reduce tumor protection in the tumor microenvironment to enable the T-cells to eliminate tumors.

Axalimogene filolisbac (ADXS-HPV) is our lead *Lm*-LLO immunotherapy product candidate for the treatment of Human Papilloma Virus (“HPV”) associated cancers. The Company completed a randomized Phase 2 study in 110 patients with recurrent cervical cancer that was shown to have a manageable safety profile, apparent improved survival and objective tumor responses. In addition, the Gynecologic Oncology Group (“GOG”), now part of NRG Oncology, is conducting a cooperative group sponsored Phase 2 open-label clinical study of axalimogene filolisbac in patients with persistent or recurrent cervical cancer with documented disease progression. The study, known as GOG-0265, has successfully completed its first stage and has met the predetermined safety and efficacy criteria required to proceed into the second stage of patient recruitment. The Company plans to advance this immunotherapy into a registrational clinical trial for the treatment of women with high-risk locally advanced cervical cancer.

Axalimogene filolisbac has received United States Food and Drug Administration (“FDA”) orphan drug designation for three HPV-associated cancers: cervical, head and neck, and anal cancer, and has received European Medicines Agency (“EMA”) orphan drug designation for anal cancer. It is being evaluated in Company-sponsored trials executed under an Investigational New Drug (“IND”) which include the following: i) a Phase 1/2 clinical trial alone and in combination with MedImmune, LLC’s (“MedImmune”) investigational anti-PD-L1 immune checkpoint inhibitor, durvalumab (MEDI4736), in patients with previously treated metastatic cervical cancer and HPV-associated head and neck cancer; ii) a Phase 2 multi-center, open-label study alone and in combination with Incyte Corporation’s (“Incyte”) investigational oral indoleamine 2,3-dioxygenase 1 (IDO1) inhibitor, epacadostat (INCB24360) in patients with Stage I-IIa cervical cancer; iii) a Phase 1/2 study evaluating higher doses and repeat cycles of axalimogene filolisbac in patients with recurrent cervical cancer; iv) a single arm Phase 2 monotherapy study in patients with metastatic anal cancer; and v) a Phase 2 study in collaboration with and funded by Global BioPharma Inc. (“GBP”), under a development and commercialization license agreement applicable to Asia, of axalimogene filolisbac in HPV-associated non-small cell lung cancer. In addition to the Company-sponsored trials, axalimogene filolisbac is also being evaluated in three ongoing investigator-initiated clinical trials as follows: locally advanced cervical cancer (GOG-0265), head and neck cancer (Mount Sinai), and anal cancer (Brown University).

ADXS-PSA is the Company's *Lm-LLO* immunotherapy product candidate designed to target the Prostate Specific Antigen ("PSA") associated with prostate cancer. This Phase 1/2 clinical trial is alone and in combination with KEYTRUDA® (pembrolizumab), Merck & Co.'s ("Merck") humanized monoclonal antibody against PD-1, in patients with previously treated metastatic castration-resistant prostate cancer.

ADXS-HER2 is the Company's *Lm-LLO* immunotherapy product candidate designed for the treatment of Human Epidermal Growth Factor Receptor 2 ("HER2") expressing cancers, including human and canine osteosarcoma, breast, gastric and other cancers. This Phase 1b clinical trial is in patients with metastatic HER2 expressing solid tumors. We received orphan drug designation from both the FDA and EMA for ADXS-HER2 in osteosarcoma. Clinical research with ADXS-HER2 in canine osteosarcoma is being developed by our pet therapeutic partner, Aratana Therapeutics Inc. ("Aratana"), who holds exclusive rights to develop and commercialize ADXS-HER2 and three other *Lm-LLO* immunotherapies for pet health applications. Aratana has announced that a product license application for use of ADXS-HER2 in the treatment of canine osteosarcoma has been filed with the United States Department of Agriculture ("USDA"). Aratana received communication from the USDA in March 2015 stating that the previously submitted efficacy data for product licensure for AT-014 (ADXS-HER2), the cancer immunotherapy for canine osteosarcoma, was accepted and that it provides a reasonable expectation of efficacy that supports conditional licensure. While additional steps need to be completed, including in the areas of manufacturing and safety, Aratana anticipates that AT-014 could receive conditional licensure from the USDA in 2016.

In October of 2015, the Company received notification from the FDA that the INDs for axalimogene filolisbac were put on clinical hold in response to its submission of a safety report to the FDA. The clinical hold also included the INDs for ADXS-PSA and ADXS-HER2. Following discussions with the FDA and in accordance with their recommendations, the Company agreed to implement certain risk mitigation measures, including revised study protocol inclusion / exclusion criteria, post-administration antibiotic treatment and patient surveillance and monitoring measures. In December 2015, the FDA notified the Company that the hold has been lifted with respect to its INDs.

The Company has focused its development efforts on understanding its platform technology and establishing a drug development pipeline that incorporates this technology into therapeutic cancer immunotherapies, with clinical trials currently targeting HPV-associated cancer (cervical cancer, head and neck cancer and anal cancer), prostate cancer, and HER2-expressing cancers. Although no immunotherapies have been commercialized to date, the Company continues to invest in research and development to advance the technology and make it available to patients with many different types of cancer. Pipeline development and the further exploration of the technology for advancement entails risk and expense. The Company anticipates that its ongoing operational costs will increase significantly as it continues conducting and expanding its clinical development program. In addition to its existing single antigen vectors that target one tumor associated antigen, the Company is actively engaged in the development of new constructs that will address multiple targets that are common to tumor types, as well as mutation-associated neo-epitopes that are specific to an individual patient's tumor. Lastly, the Company is developing certain internal capabilities to produce supplies for its neoepitope and its other programs.

#### *Liquidity and Financial Condition*

The Company's products are being developed and have not generated significant revenues. As a result, the Company has suffered recurring losses. These losses are expected to continue for an extended period of time. On December 19, 2014, the Company priced a registered direct offering of 3,940,801 shares of its Common Stock ("Common Stock"). The transaction closed on December 22, 2014, and the Company received net proceeds of approximately \$15.8 million from the offering. In addition, on February 18, 2015, the Company priced an additional registered direct offering of 3,068,095 shares of its Common Stock. The transaction closed on February 19, 2015, and the Company received net proceeds of approximately \$22.3 million from the offering. The shares in each offering were sold under a Registration Statement (No. 333-194009) on Form S-3, filed by the Company with the United States Securities and Exchange Commission ("SEC"). On May 5, 2015, the Company closed on an underwritten public offering of 2,800,000 shares of Common Stock at a public offering price of \$19.00 per share. On May 20, 2015, the Company closed the Underwriters' overallotment option to purchase 420,000 shares of its Common Stock at a public offering price of \$19.00 per share. The net proceeds from the May 2015 public offerings were approximately \$56.7 million. On August 25, 2015, the Company priced a registered direct offering of 1,797,269 of its Common Stock at a price of \$13.91 per share. The transaction closed on August 28, 2015 and the Company received net proceeds of approximately \$25 million. The sale of the shares in these offerings were registered pursuant to a Registration Statement (No. 333-203497) on Form S-3, filed by the Company with the SEC.

The Company believes its current cash position is sufficient to fund its business plan approximately through calendar year end 2017. The estimate is based on assumptions that may prove to be wrong, and the Company could use available capital resources sooner than currently expected. Because of the numerous risks and uncertainties associated with the development and commercialization of its product candidates, the Company is unable to estimate the amount of increased capital outlays and operating expenses associated with completing the development of its current product candidates.

The Company recognizes it may need to raise additional capital in order to continue to execute its business plan. There is no assurance that additional financing will be available when needed or that management will be able to obtain financing on terms acceptable to the Company or whether the Company will become profitable and generate positive operating cash flow. If the Company is unable to raise sufficient additional funds, it will have to scale back its business plan.

## **2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

### *Estimates*

The preparation of financial statements in accordance with U.S. Generally Accepted Accounting Principles (“GAAP”) involves the use of estimates and assumptions that affect the recorded amounts of assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results may differ substantially from these estimates. Significant estimates include the fair value and recoverability of the carrying value of intangible assets (patents and licenses), the fair value of investments, the fair value of options, the fair value of embedded conversion features, warrants and related disclosure of contingent assets and liabilities. On an on-going basis, the Company evaluates its estimates, based on historical experience and on various other assumptions that it believes to be reasonable under the circumstances. Actual results may differ from estimates.

### *Reclassification*

Certain amounts in the prior period financial statements have been reclassified to conform to the presentation of the current period financial statements. These reclassifications had no effect on the previously reported net loss.

### *Revenue Recognition*

The Company derived all of its revenue in 2014 from patent licensing. In general, these revenue arrangements provide for the payment of contractually determined fees in consideration for the grant of certain intellectual property rights for patented technologies owned or controlled by the Company. The intellectual property rights granted may be perpetual in nature, or upon the final milestones being met, or can be granted for a defined, relatively short period of time, with the licensee possessing the right to renew the agreement at the end of each contractual term for an additional minimum upfront payment. The Company recognizes licensing fees when there is persuasive evidence of a licensing arrangement, fees are fixed or determinable, delivery has occurred and collectability is reasonably assured.

An allowance for doubtful accounts is established based on the Company's best estimate of the amount of probable credit losses in the Company's existing license fee receivables, using historical experience. The Company reviews its allowance for doubtful accounts periodically. Past due accounts are reviewed individually for collectability.

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Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. To date, this is yet to occur.

If product development is successful, the Company will recognize revenue from royalties based on licensees' sales of its products or products using its technologies. Royalties are recognized as earned in accordance with the contract terms when royalties from licensees can be reasonably estimated and collectability is reasonably assured. If royalties cannot be reasonably estimated or collectability of a royalty amount is not reasonably assured, royalties are recognized as revenue when the cash is received.

The Company recognizes revenue from milestone payments received under collaboration agreements when earned, provided that the milestone event is substantive, its achievability was not reasonably assured at the inception of the agreement, the Company has no further performance obligations relating to the event and collection is reasonably assured. If these criteria are not met, the Company recognizes milestone payments ratably over the remaining period of the Company's performance obligations under the collaboration agreement. All such recognized revenues are included in collaborative licensing and development revenue in the Company's consolidated statements of operations.

#### *Cash and Cash Equivalents*

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. As of October 31, 2015 and October 31, 2014, the Company had approximately \$62.8 million and \$17.5 million in cash equivalents.

#### *Concentration of Credit Risk*

The Company maintains its cash in bank deposit accounts (checking) that at times exceed federally insured limits. Approximately \$63.9 million is subject to credit risk at October 31, 2015. However, these cash balances are maintained at creditworthy financial institutions. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk.

#### *Investments*



Investment securities at October 31, 2015 consist of certificates of deposit, domestic governmental agency loans, and U.S. treasury notes. The Company classifies these securities as held-to-maturity. Held-to-maturity securities are those securities in which the Company has the ability and intent to hold the security until maturity. Held-to-maturity securities are recorded at amortized cost, adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized or accreted over the life of the related held-to-maturity security as an adjustment to yield using the effective interest method.

A decline in the market value of any investment security below cost, that is deemed to be other than temporary, results in a reduction in the carrying amount to fair value. The impairment is charged to operations and a new cost basis for the security is established. Other-than-temporary impairment charges are included in Other Income (Expense), net. The Company did not recognize any impairment charges during the year ended October 31, 2015. Interest income is recognized when earned.

#### *Deferred Expenses*

Deferred Expenses consist of advanced payments made on research and development projects. Amortization is provided for on a straight-line basis over the periods of the underlying research and development contracts ranging from six months to five years and is charged to Research and Development Expense in the Statement of Operations.

#### *Property and Equipment*

Property and equipment consists of computer equipment, laboratory equipment, furniture and fixtures and leasehold improvements and is stated at cost. Depreciation and amortization is provided for on the straight-line basis over the estimated useful lives of the respective asset ranging from three to 10 years. Leasehold Improvements are amortized over the lesser of the asset's economic life or the lease term. Expenditures for maintenance and repairs that do not materially extend the useful lives of the respective assets are charged to expense as incurred. The cost and accumulated depreciation of assets retired or sold are removed from the respective accounts and any gain or loss is recognized in operations.

#### *Intangible Assets*

Intangible assets primarily consist of legal and filing costs associated with obtaining patents and licenses and are amortized on a straight-line basis over their remaining useful lives which are estimated to be 20 years from the effective dates of the University of Pennsylvania (Penn) License Agreements, beginning in July 1, 2002. These legal and filing costs are invoiced to the Company through Penn and its patent attorneys.

Management has reviewed its long-lived assets for impairment whenever events and circumstances indicate that the carrying value of an asset might not be recoverable and its carrying amount exceeds its fair value, which is based upon estimated undiscounted future cash flows. Net assets are recorded on the balance sheet for patents and licenses related to axalimogene filolisbac, ADXS-PSA and ADXS-HER2 and other products that are in development. However, if a competitor were to gain FDA approval for a treatment before Advaxis or if future clinical trials fail to meet the targeted endpoints, the Company would likely record an impairment related to these assets. In addition, if an application is rejected or fails to be issued, the Company would record an impairment of its estimated book value.

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*Net Loss per Share*

Basic net income or loss per common share is computed by dividing net income or loss available to common shareholders by the weighted average number of common shares outstanding during the period. Diluted earnings per share give effect to dilutive options, warrants, convertible debt and other potential Common Stock outstanding during the period. In the case of a net loss the impact of the potential Common Stock resulting from warrants, outstanding stock options and convertible debt are not included in the computation of diluted loss per share, as the effect would be anti-dilutive. In the case of net income the impact of the potential Common Stock resulting from these instruments that have intrinsic value are included in the diluted earnings per share. The table sets forth the number of potential shares of Common Stock that have been excluded from diluted net loss per share.

|  | As of October 31, |           |
|--|-------------------|-----------|
|  | 2015              | 2014      |
| Warrants   | 3,241,466         | 4,158,092 |
| Stock Options                                    | 1,981,939         | 467,968   |
| Convertible Debt (using the if-converted method) | 1,576             | 3,354     |
| Total  | 5,224,981         | 4,629,414 |

*Research and Development Expenses*

Research and development costs are expensed as incurred and include but are not limited to clinical trial and related manufacturing costs, payroll and personnel expenses, lab expenses, and related overhead costs.

*Stock Based Compensation*

The Company has an equity plan which allows for the granting of stock options to its employees, directors and consultants for a fixed number of shares with an exercise price equal to the fair value of the shares at date of grant. The Company measures the cost of services received in exchange for an award of equity instruments based on the fair value of the award. For employees and directors, the fair value of the award is measured on the grant date and for non-employees, the fair value of the award is generally measured based on contractual terms. The fair value amount is then recognized over the requisite service period, usually the vesting period, in both research and development expenses and general and administrative expenses on the statement of operations, depending on the nature of the services provided by the employees or consultants.

The process of estimating the fair value of stock-based compensation awards and recognizing stock-based compensation cost over their requisite service period involves significant assumptions and judgments. The Company estimates the fair value of stock option awards on the date of grant using the Black Scholes Model (“BSM”) for the remaining awards, which requires that the Company makes certain assumptions regarding: (i) the expected volatility in the market price of its Common Stock; (ii) dividend yield; (iii) risk-free interest rates; and (iv) the period of time employees are expected to hold the award prior to exercise (referred to as the expected holding period). As a result, if the Company revises its assumptions and estimates, stock-based compensation expense could change materially for future grants.

The Company accounts for stock-based compensation using fair value recognition and records stock-based compensation as a charge to earnings net of the estimated impact of forfeited awards. As such, the Company recognizes stock-based compensation cost only for those stock-based awards that are estimated to ultimately vest over their requisite service period, based on the vesting provisions of the individual grants.

#### *Treasury Stock*

The Company accounts for repurchases of common stock and shares withheld in lieu of taxes when restricted stock vests using the cost method with common stock in treasury classified in the balance sheet as a reduction in stockholders’ equity.

#### *Fair Value of Financial Instruments*

The carrying amounts of financial instruments, including cash, accounts payable and accrued expenses approximated fair value as of the balance sheet date presented, because of the relatively short maturity dates on these instruments. The carrying amounts of the financing arrangements issued approximate fair value as of the balance sheet date presented, because interest rates on these instruments approximate market interest rates after consideration of stated interest rates, anti-dilution protection and associated warrants.

### *Derivative Financial Instruments*

The Company does not use derivative instruments to hedge exposures to cash flow, market or foreign currency risks. The Company evaluates all of its financial instruments to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. For derivative financial instruments that are accounted for as liabilities, the derivative instrument is initially recorded at its fair value and is then re-valued at each reporting date, with changes in the fair value reported in the statements of operations. For stock-based derivative financial instruments, the Company used the Black Scholes valuation model which approximated the binomial lattice options pricing model to value the derivative instruments at inception and on subsequent valuation dates. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is evaluated at the end of each reporting period. Derivative liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the instrument could be required within 12 months of the balance sheet date.

### *Recent Accounting Pronouncements*

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, *Revenue from Contracts with Customers*. Amendments in this ASU create Topic 606, Revenue from Contracts with Customers, and supersede the revenue recognition requirements in Topic 605, Revenue Recognition, including most industry-specific revenue recognition guidance throughout the Industry Topics of the Codification. In addition, the amendments supersede the cost guidance in Subtopic 605-35, Revenue Recognition—Construction-Type and Production-Type Contracts, and create new Subtopic 340-40, Other Assets and Deferred Costs—Contracts with Customers. In summary, the core principle of Topic 606 is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This ASU is the final version of Proposed ASU 2011-230—Revenue Recognition (Topic 605) and Proposed ASU 2011-250—Revenue Recognition (Topic 605): Codification Amendments, both of which have been deleted. The amendments in this ASU are effective for the Company for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. The Company is currently evaluating the effects of ASU 2014-09 on the consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, *Disclosures of Uncertainties About an Entity’s Ability to Continue as a Going Concern*. The new standard provides guidance around management’s responsibility to evaluate whether there is substantial doubt about an entity’s ability to continue as a going concern and to provide related footnote disclosures. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. The Company does not expect that this guidance will have a material impact on its financial position, results of operations or cash flows.

Management does not believe that any other recently issued, but not yet effective accounting pronouncements, if adopted, would have a material impact on the accompanying consolidated financial statements.

*Income Taxes*

The Company uses the asset and liability method of accounting for income taxes in accordance with ASC Topic 740, "Income Taxes." Under this method, income tax expense is recognized for the amount of: (i) taxes payable or refundable for the current year and (ii) deferred tax consequences of temporary differences resulting from matters that have been recognized in an entity's financial statements or tax returns. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is provided to reduce the deferred tax assets reported if based on the weight of the available positive and negative evidence, it is more likely than not some portion or all of the deferred tax assets will not be realized.

**3. INVESTMENTS**

The following table summarizes the Company's investment securities at amortized cost as of October 31, 2015:

|  | October 31, 2015                  |   |  |                            |
|--|-----------------------------------|---|--|----------------------------|
|  | Amortized<br>cost,<br>as adjusted | Gross<br>unrealized<br>holding<br>gains | Gross<br>unrealized<br>holding<br>losses | Estimated<br>fair<br>value |
| Short-term investments:                |                                   |   |  |                            |
| Certificates of Deposit                | \$ 12,628,880                     | \$ -                                    | \$ -                                     | \$ 12,628,880              |
| Domestic Governmental Agency Loans     | 27,951,633                        | 5,827                                   | 5,979                                    | 27,951,481                 |
| U.S Treasury Notes                     | 5,013,982                         | 700                                     | 262                                      | 5,014,420                  |
| Total short-term investment securities | \$ 45,594,495                     | \$ 6,527                                | \$ 6,241                                 | \$ 45,594,781              |

All of the Company's investments mature within the next 12 months.

**4. PROPERTY AND EQUIPMENT**

Property and equipment consists of the following:

October 31,

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|   | 2015        | 2014      |
|---|-------------|-----------|
| Leasehold Improvements                    | \$237,209   | \$-       |
| Laboratory Equipment                      | 532,249     | 250,456   |
| Furniture and Fixtures                    | 331,500     | 72,554    |
| Computer Equipment                        | 48,745      | 10,717    |
| Construction in Progress                  | 80,538      | -         |
| Total Property and Equipment              | 1,230,241   | 333,727   |
| Accumulated Depreciation and Amortization | (142,997 )  | (256,358) |
| Net Property and Equipment                | \$1,087,244 | \$77,369  |

Depreciation expense for the years ended October 31, 2015 and 2014 was \$59,033 and \$27,611, respectively.

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**5. INTANGIBLE ASSETS**

Under the University of Pennsylvania (“Penn”) license agreements, the Company is billed actual patent expenses as they are passed through from Penn and are billed directly from the Company’s patent attorney. The following is a summary of intangible assets as of the end of the following fiscal periods:

|                          | October 31, |             |
|--------------------------|-------------|-------------|
|                          | 2015        | 2014        |
| License                  | \$651,992   | \$651,992   |
| Patents                  | 3,898,493   | 3,111,624   |
| Total intangibles        | 4,550,485   | 3,763,616   |
| Accumulated Amortization | (1,195,452) | (995,671 )  |
| Net Intangible Assets    | \$3,355,033 | \$2,767,945 |

The expirations of the existing patents range from 2015 to 2030 but the expirations can be extended based on market approval if granted and/or based on existing laws and regulations. Capitalized costs associated with patent applications that are abandoned without future value are charged to expense when the determination is made not to pursue the application. Patent applications having a net book value of \$28,480 and \$- were abandoned and were charged to Other Income (Expense), Net in the statement of operations for the years ended October 31, 2015 and 2014, respectively. Amortization expense for licensed technology and capitalized patent cost is included in general and administrative expenses and aggregated \$206,357 and \$175,686 for the years ended October 31, 2015 and 2014.

Estimated amortization expense for the next five years is as follows:

| Year ending October 31, |           |
|-------------------------|-----------|
| 2016                    | \$221,000 |
| 2017                    | \$221,000 |
| 2018                    | \$221,000 |
| 2019                    | \$221,000 |
| 2020                    | \$221,000 |

**6. ACCRUED EXPENSES:**

The following table represents the major components of accrued expenses:



|                                 | October 31, |             |
|---------------------------------|-------------|-------------|
|                                 | 2015        | 2014        |
| Salaries and other compensation | \$1,698,371 | \$890,069   |
| Vendors                         | 1,000,579   | 121,200     |
| Professional Fees               | 272,058     | 208,000     |
| Withholding taxes payable       | 220,933     | 22,527      |
| Total Accrued Expenses          | \$3,191,941 | \$1,241,796 |

## 7. CONVERTIBLE NOTES AND FAIR VALUE OF EMBEDDED DERIVATIVE

### Junior Subordinated Convertible Promissory Notes

The Company refers to all Junior Subordinated Convertible Promissory Notes as “Bridge Notes.”

The Bridge Notes are convertible into shares of the Company’s Common Stock at a fixed exercise price. As of October 31, 2015 and 2014, the Company had approximately \$30,000 and \$63,000 in principal outstanding on its junior subordinated convertible promissory notes that are currently overdue and are recorded as current liabilities on the Company’s balance sheet at October 31, 2015 and 2014, respectively.

During February 2015, the Company induced certain noteholders to convert their convertible promissory notes into common shares by offering conversion prices at a \$1.61 discount from the market price of the common stock. In total, \$33,333 of promissory notes were converted into 4,104 shares of common stock. In connection with the note conversions, the Company recorded a debt conversion expense of \$6,599 in the accompanying statement of operations

*Embedded Derivative Liability*

The Company has convertible features (known as “Embedded Derivatives”) in its outstanding convertible promissory note. The Embedded Derivatives are recorded as liabilities at issuance. These Embedded Derivatives are valued using the BSM and are subject to revaluation at each reporting date. Any change in fair value between reporting periods will be reported on the statement of operations.

The fair value of the Warrants and Embedded Derivatives are estimated using an adjusted BSM model. The Company computes multiple valuations, each quarter, using the BSM model for each derivative instrument to account for the various possibilities that could occur due to changes in the inputs to the BSM model as a result of contractually-obligated changes (for example, changes in strike price to account for down-round provisions). The Company effectively weights each calculation based on the likelihood of occurrence to determine the value of the derivative at the reporting date.

At October 31, 2015 and October 31, 2014, the fair value of the Embedded Derivative Liability was \$0 as the related notes were paid off, converted or reached maturity.

**8. COMMON STOCK PURCHASE WARRANTS AND WARRANT LIABILITY***Warrants*

As of October 31, 2015, there were outstanding warrants to purchase 3,241,466 shares of the Company’s Common Stock with exercise prices ranging from \$2.76 to \$18.75 per share. Information on the outstanding warrants is as follows:

| Type                          | Exercise Price | Amount | Expiration Date          | Type of Financing                        |
|-------------------------------|----------------|--------|--------------------------|--|
| Common Stock Purchase Warrant | \$18.75        | 7,902  | January 2016             | December 2011 Convertible Debt Financing |
| Common Stock Purchase Warrant | \$10.63        | 13,333 | May 2017                 | May 2012 Convertible Debt Financing      |
| Common Stock Purchase Warrant | \$18.75        | 376    | N/A                      | Vendor & Other                           |
|                               | \$10.63-18.75  | 3,172  | November 2015 – May 2017 |  |

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|                               |             |           |                            |   |
|-------------------------------|-------------|-----------|----------------------------|---|
| Common Stock Purchase Warrant |             |           |                            | Placement Agent – Convertible Debt Financing            |
| Common Stock Purchase Warrant | \$5.00      | 20,392    | October 2018               | Former Officer  |
| Common Stock Purchase Warrant | \$2.76-5.52 | 122,661   | December 2015 – March 2024 | Stock Purchase Agreement                                |
| Common Stock Purchase Warrant | \$18.75     | 1,778     | August 2017                | August – September 2012<br>Convertible Promissory Notes |
| Common Stock Purchase Warrant | \$5.00      | 3,043,477 | October 2018               | Advaxis Public Offering                                 |
| Common Stock Purchase Warrant | \$3.75-5.00 | 28,375    | October 2018 – March 2019  | Representative – Advaxis Public Offering                |
| Grand Total                   |             | 3,241,466 |                            |   |

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As of October 31, 2014, there were outstanding warrants to purchase 4,158,092 shares of the Company's Common Stock with exercise prices ranging from \$2.76 to \$21.25 per share. Information on the outstanding warrants is as follows:

| Type                          | Exercise Price | Amount    | Expiration Date            | Type of Financing                                    |
|-------------------------------|----------------|-----------|----------------------------|--|
| Common Stock Purchase Warrant | \$18.75        | 28,632    | May 2015                   | May 2011 Convertible Debt Financing                  |
| Common Stock Purchase Warrant | \$18.75        | 10,059    | October 2015               | Oct 2011 Convertible Debt Financing                  |
| Common Stock Purchase Warrant | \$18.75        | 17,706    | May 2015 – January 2016    | December 2011 Convertible Debt Financing             |
| Common Stock Purchase Warrant | \$18.75        | 13,333    | May 2017                   | May 2012 Convertible Debt Financing                  |
| Common Stock Purchase Warrant | \$7.77-21.25   | 112,460   | December 2014 – April 2015 | Bridge Notes   |
| Common Stock Purchase Warrant | \$18.75        | 376       | N/A                        | Vendor & Other                                       |
| Common Stock Purchase Warrant | \$10.625-18.75 | 7,855     | January 2015 – May 2017    | Placement Agent – Convertible Debt Financing         |
| Common Stock Purchase Warrant | \$5.00         | 20,392    | October 2018               | Former Officer                                       |
| Common Stock Purchase Warrant | \$4.90         | 30,154    | September 2015             | Consultant   |
| Common Stock Purchase Warrant | \$2.76-5.52    | 277,055   | December 2015 – March 2024 | Stock Purchase Agreement                             |
| Common Stock Purchase Warrant | \$5.625-18.75  | 13,095    | October 2015 – August 2017 | August – September 2012 Convertible Promissory Notes |
| Common Stock Purchase Warrant | \$5.00         | 3,306,200 | October 2018               | Advaxis Public Offering                              |
| Common Stock Purchase Warrant | \$3.75-5.00    | 320,775   | October 2018 – March 2019  | Representative – Advaxis Public Offering             |
|                               | Grand Total    | 4,158,092 |                            |  |

A summary of changes in warrants for the years ended October 31, 2015 and 2014 is as follows:

|  | Shares    | Weighted Average Exercise Price | Weighted Average Remaining Contractual Life In Years | Aggregate Intrinsic Value |
|--|-----------|---------------------------------|--|---------------------------|
| Outstanding and Exercisable Warrants at October 31, 2013 | 4,265,262 | \$ 6.71                         | 4.22   | \$22,208                  |
| Issued   | 412,693   | 4.97                            |  |                           |

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|  |            |         |      |              |
|--|------------|---------|------|--------------|
| Exercised  | (50 )      | 5.00    |      |              |
| Expired  | (519,813 ) | 15.01   |      |              |
| Outstanding and Exercisable Warrants at October 31, 2014 | 4,158,092  | \$ 5.43 | 3.94 | \$9,518      |
| Issued   | 2,361      | 7.20    |      |              |
| Exercised *  | (769,349 ) | 5.12    |      |              |
| Expired  | (149,638 ) | 14.61   |      |              |
| Outstanding and Exercisable Warrants at October 31, 2015 | 3,241,466  | \$ 5.07 | 2.90 | \$19,588,099 |

\* Includes the cashless exercise of 300,376 warrants that resulted in the issuance of 222,295 shares of common stock.

At October 31, 2015, the Company had approximately 3.22 million of its total 3.24 million outstanding warrants classified as equity (equity warrants). At October 31, 2014, the Company had approximately 4.04 million of its total 4.16 million outstanding warrants classified as equity (equity warrants). At issuance, equity warrants are recorded at their relative fair values, using the Relative Fair Value Method, in the shareholders equity section of the balance sheet. The Company's equity warrants can only be settled through the issuance of shares and are not subject to anti-dilution provisions.

*Warrant Liability*

At October 31, 2015, the Company had approximately 18,000 of its total 3.24 million outstanding warrants classified as liability warrants (Common Stock warrant liability). At October 31, 2014, the Company had approximately 123,000 of its total 4.16 million outstanding warrants classified as liability warrants (Common Stock warrant liability). All of these liability warrants at October 31, 2015 and October 31, 2014 were outstanding. The Company utilizes the BSM to calculate the fair value of these warrants at issuance and at each subsequent reporting date. For those warrants with exercise price reset features (anti-dilution provisions), the Company computes multiple valuations, each quarter, using an adjusted BSM, to account for the various possibilities that could occur due to changes in the inputs to the BSM as a result of contractually-obligated changes (for example, changes in strike price to account for down-round provisions). The Company effectively weights each calculation based on the likelihood of occurrence to determine the value of the warrants at the reporting date. At October 31, 2015, none of the 18,000 liability warrants are subject to weighted-average anti-dilution provisions. At October 31, 2014, approximately 60,000 of the 123,000 liability warrants are subject to weighted-average anti-dilution provisions. A certain number of liability warrants contain a cash settlement provision in the event of a fundamental transaction (as defined in the Common Stock purchase warrant). Any changes in the fair value of the warrant liability (i.e. - the total fair value of all outstanding liability warrants at the balance sheet date) between reporting periods will be reported on the statement of operations.

At October 31, 2015 and October 31, 2014, the fair value of the warrant liability was \$89,211 and \$32,091, respectively. For the twelve months ended October 31, 2015 and 2014, the Company reported a loss of \$48,950 and income of \$619,089, respectively, due to changes in the fair value of the warrant liability.

In fair valuing the warrant liability, at October 31, 2015 and October 31, 2014, the Company used the following inputs in its BSM:

|                | 10/31/2015      | 10/31/2014       |
|----------------|-----------------|------------------|
| Exercise Price | \$10.63-18.75   | \$2.76-21.25     |
| Stock Price    | \$11.09         | \$3.18           |
| Expected Term  | 1.52-1.76 years | 0.01-2.76 years  |
| Volatility %   | 93.87%-95.00 %  | 55.41% -129.38 % |
| Risk Free Rate | .075 %          | .01%-1.62 %      |

*Exercise of Warrants*

During the twelve months ended October 31, 2015, accredited investors exercised 769,349 warrants at a weighted average exercise price of \$5.12, resulting in net proceeds to the Company of \$2,342,449.

During the twelve months ended October 31, 2014, an accredited investor exercised 50 warrants at an exercise price of \$5.00, resulting in net proceeds to the Company of \$250.

#### *Expiration of Warrants*

During the twelve months ended October 31, 2015, the Company had 62,430 warrants with anti-dilution provisions, and 87,208 warrants, with no such anti-dilution provisions, expired unexercised.

During the twelve months ended October 31, 2014, the Company had 179,666 warrants with anti-dilution provisions, and 340,147 warrants, with no such anti-dilution provisions, expired unexercised.

#### *Warrants with anti-dilution provisions*

Some of the Company's warrants contained anti-dilution provisions originally set at an exercise price of \$25.00 with a term of five years. As of October 31, 2015, all of these warrants had expired. As of October 31, 2014, these warrants had an exercise price of approximately \$7.71. If the Company had issued any Common Stock, except for exempt issuances as defined in the warrant agreement, for consideration less than the exercise price, then the exercise price and the amount of warrant shares available would have been adjusted to a new price and amount of shares per the "weighted average" formula included in the warrant agreement. For the twelve months ended October 31, 2015, this anti-dilution provision required the Company to issue approximately 2,400 additional warrant shares, and the exercise price to be lowered to \$7.20.

For those warrants with exercise price reset features (anti-dilution provisions), the Company computed multiple valuations, each quarter, using an adjusted BSM, to account for the various possibilities that could occur due to changes in the inputs to the BSM as a result of contractually-obligated changes (for example, changes in strike price to account for down-round provisions). The Company utilized different exercise prices of \$7.20 and \$6.00, weighting the possibility of warrants being exercised at \$7.20 between 40% and 50% and warrants being exercised at \$6.00 between 50% and 60%.

## 9. SHARE BASED COMPENSATION

### *Amendments*

On March 30, 2015, the Board of Directors adopted, subject to stockholder approval at the Annual Meeting, the Advaxis, Inc. 2015 Incentive Plan (the “2015 Plan”). The 2015 Plan became effective on May 27, 2015 when it was approved by the Company’s stockholders at the 2015 Annual Meeting. The 2015 Plan serves as the successor to the Advaxis, Inc. 2011 Omnibus Incentive Plan (the “Prior Plan”). Effective May 27, 2015, all future equity awards were made from the 2015 Plan, and no additional awards will be granted under the Prior Plan. Subject to proportionate adjustment in the event of stock splits and similar events, the aggregate number of shares of Common Stock that may be issued under the 2015 Plan is 3,600,000 shares, plus a number of additional shares (not to exceed 650,000) underlying awards outstanding as of the effective date of the 2015 Plan under the Prior Plan that thereafter terminate or expire unexercised, or are cancelled, forfeited or lapse for any reason. As of October 31, 2015, there were 2,134,468 shares available for issuance under the 2015 Plan.

At the Annual Meeting of Stockholders of the Company held on July 9, 2014, the stockholders ratified and approved an amendment to the Company’s 2011 Omnibus Incentive Plan to increase the aggregate number of shares of common stock authorized for issuance under such plan from 520,000 shares to 2,120,000 shares. Furthermore, the stockholders approved an amendment to the Company’s Certificate of Incorporation to increase the total number of authorized shares of common stock from 25,000,000 shares of common stock to 45,000,000 shares of common stock.

### *Employment Agreements*

Management voluntarily purchases restricted stock directly from the Company at market price. The respective stock purchases occur on the last trading day of each month. This voluntary election is outlined in each of Daniel J. O’Connor, Chief Executive Officer and President, David J. Mauro, Executive Vice President, Chief Medical Officer, Gregory T. Mayes, Executive Vice President, Chief Operating Officer and Secretary, Robert G. Petit, Executive Vice President, Chief Scientific Officer and Sara M. Bonstein, Senior Vice President, Chief Financial Officer, (each an “Executive”), employment agreements. The table below reflects the purchases of each Executive:

|                  | <b>ANNUALIZED</b>                    |  |                     |
|------------------|--------------------------------------|--|---------------------|
|                  | <b>Annual Amount to be Purchased</b> | <b>For the Year Ended October 31, 2015</b> |                     |
|                  |                                      | <b>Gross Purchase</b>                      | <b>Net Purchase</b> |
| <b>Executive</b> | <b>\$</b>                            | <b>\$</b>                                  | <b>\$</b>           |



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|                    |           |          | <b># of<br/>shares</b> |          | <b># of<br/>shares</b> |
|--------------------|-----------|----------|------------------------|----------|------------------------|
| Daniel J. O'Connor | \$ 89,064 | \$88,840 | 8,482                  | \$76,451 | 7,556                  |
| David J. Mauro     | \$ 16,531 | \$16,491 | 1,591                  | \$12,729 | 1,252                  |
| Gregory T. Mayes   | \$ 23,477 | \$23,312 | 2,180                  | \$18,740 | 1,781                  |
| Robert G. Petit    | \$ 25,225 | \$25,220 | 2,443                  | \$19,000 | 1,886                  |
| Sara M. Bonstein   | \$ 19,734 | \$19,597 | 1,837                  | \$15,662 | 1,473                  |

For the twelve months ended October 31, 2015, the Company recorded stock compensation expense of \$206,192 for the portion of management salaries paid in stock, representing 19,145 shares of its Common Stock (16,090 shares on a net basis after employee payroll taxes).

For the twelve months ended October 31, 2014, the Company recorded stock compensation expense of \$128,271 for the portion of management salaries paid in stock, representing 40,320 shares of its Common Stock (31,026 shares on a net basis after employee payroll taxes).

From 2013 to present, in addition to the purchases of Common Stock set forth in the above table, Mr. O'Connor has also purchased an additional 146,616 shares of Common Stock out of his personal funds at the then market price for an aggregate consideration of \$588,294. These purchases consisted of the conversion of amounts due to Mr. O'Connor under a promissory note given by Mr. O'Connor to the Company in 2012 of \$66,500 for 21,091 shares, 2013 base salary which he elected to receive in Common Stock of a \$186,555 for 34,752 shares (21,489 on a net basis after employee payroll taxes), 2013 and 2014 cash bonuses voluntarily requested to receive in equity of \$214,359 for 62,064 shares (57,990 on a net basis after employee payroll taxes), fiscal 2014 voluntary request to purchase stock directly from the Company at market price purchases of \$68,750 for 15,950 shares, and purchases of the Company's Common Stock in the October 2013 and March 2014 public offerings of 13,500 shares for \$54,000 and 3,333 shares for \$10,000.

For the twelve months ended October 31, 2015, executive officers received a portion of their year-end performance bonus (with a total fair value of approximately \$418,000) in the aggregate amount of 125,411 shares of the Company's Common Stock (98,603 on a net basis after employee payroll taxes).

For the twelve months ended October 31, 2014, executive officers received a portion of their year-end performance bonus (with a total fair value of approximately \$129,000) in the aggregate amount of 31,845 shares of the Company's Common Stock (21,389 on a net basis after employee payroll taxes).

*Restricted Stock Units (RSUs)*

A summary of the Company's RSU activity and related information for the twelve months ended October 31, 2015 and 2014 is as follows:

|                              | Number of<br>RSUs | Weighted-Average<br>Grant Date Fair<br>Value |
|------------------------------|-------------------|--|
| Balance at October 31, 2013: | 112,500           | \$ 3.57                                      |
| Granted                      | 1,268,580         | 3.88   |
| Vested                       | (547,030 )        | 3.91   |
| Cancelled                    | (42,171 )         | 4.14   |
| Balance at October 31, 2014: | 791,879           | \$ 3.81                                      |
| Granted                      | 864,192           | 15.14  |
| Vested                       | (583,403 )        | 7.58   |
| Cancelled                    | (3,333 )          | 11.76  |
| Balance at October 31, 2015  | 1,069,335         | \$ 10.89                                     |

The fair value as of the respective vesting dates of RSUs was approximately \$7,771,000 and \$1,944,000 for the twelve months ended October 31, 2015 and 2014, respectively.

As of October 31, 2015, there was approximately \$10,053,000 of unrecognized compensation cost related to non-vested RSUs, which is expected to be recognized over a remaining weighted average vesting period of approximately 1.26 years.

As of October 31, 2015, the aggregate intrinsic value of non-vested RSUs was approximately \$217,908.

*Employee Stock Awards*

During the twelve months ended October 31, 2015, 487,591 shares of Common Stock (406,691 shares on a net basis after employee taxes) were issued to executives and employees related to incentive retention awards, employment inducements and employee excellence awards. Total stock compensation expense associated with these awards was \$5,226,302.

Furthermore, non-executive employees were entitled to receive a performance-based year-end cash bonus. Several non-executive employees requested to be paid all or a portion of their cash bonus in the Company's Common Stock instead of cash. During the twelve months ended October 31, 2015, the total fair value of these equity purchases were \$67,671, or 20,322 shares of the Company's Common Stock (14,300 on a net basis after employee payroll taxes).

During the twelve months ended October 31, 2014, 489,287 shares of Common Stock (280,848 shares on a net basis after employee taxes) were issued to executives and employees related to incentive retention awards, employment inducements and employee excellence awards. Total stock compensation expense associated with these awards was \$1,836,143.

#### *Director Stock Awards*

During the twelve months ended October 31, 2015, 267,186 shares of Common Stock (253,754 shares on a net basis after taxes) were issued to the Directors for compensation related to board and committee membership. Total stock compensation expense to the Directors was \$1,223,118.

During the twelve months ended October 31, 2014, 146,899 shares of Common Stock were issued to the Directors for compensation related to board and committee membership. Total stock compensation expense to the Directors was \$614,750.

*Stock Options*

A summary of changes in the stock option plan for the twelve months ended October 31, 2015 and 2014 is as follows:

|  | Shares     | Weighted<br>Average<br>Exercise<br>Price | Weighted<br>Average<br>Remaining<br>Contractual<br>Life<br>In Years | Aggregate<br>Intrinsic<br>Value |
|--|------------|--|---|---------------------------------|
| Outstanding as of October 31, 2013         | 467,923    | \$ 15.86                                 | 7.28  | \$-                             |
| Granted                                    | 36,000     | 4.02                                     | 9.16  |                                 |
| Cancelled or Expired                       | (35,955 )  | 8.57                                     | -   |                                 |
| Outstanding as of October 31, 2014         | 467,968    | \$ 15.51                                 | 6.34  | \$-                             |
| Granted                                    | 1,668,995  | 13.41                                    | 9.42  |                                 |
| Exercised *                                | (137,667 ) | 12.29                                    |   |                                 |
| Cancelled or Expired                       | (17,357 )  | 36.24                                    |   |                                 |
| Outstanding as of October 31, 2015         | 1,981,939  | \$ 13.78                                 | 8.72  | \$285,330                       |
| Vested and Exercisable at October 31, 2015 | 711,742    | \$ 14.15                                 | 7.46  | \$270,556                       |

\* Includes the cashless exercise of 117,667 options that resulted in the issuance of 45,167 shares of common stock.

The following table summarizes information about the outstanding and exercisable options at October 31, 2015.

| Exercise<br>Price Range | Options Outstanding   |   |  | Intrinsic<br>Value | Options Exercisable   |  |                    |
|-------------------------|-----------------------|---|--|--------------------|-----------------------|--|--------------------|
|                         | Number<br>Outstanding | Weighted<br>Average<br>Remaining<br>Contractual | Weighted<br>Average<br>Exercise<br>Price |                    | Number<br>Exercisable | Weighted<br>Average<br>Exercise<br>Price | Intrinsic<br>Value |
| \$3.00 - \$9.99         | 119,720               | 7.40  | \$ 8.71                                  | \$285,330          | 117,719               | \$ 8.79                                  | \$270,556          |
| \$10.00 - \$14.99       | 1,621,605             | 9.24  | \$ 13.41                                 | \$-                | 403,409               | \$ 13.31                                 | \$-                |
| \$15.01 - \$19.99       | 224,669               | 6.33  | \$ 18.06                                 | \$-                | 174,669               | \$ 18.30                                 | \$-                |
| \$20.00 - \$36.00       | 15,945                | 0.45  | \$ 29.27                                 | \$-                | 15,945                | \$ 29.27                                 | \$-                |

The fair value of each option granted from the Company's stock option plans during the years ended October 31, 2015 and 2014 was estimated on the date of grant using the Black-Scholes option-pricing model. Using this model, fair

value is calculated based on assumptions with respect to (i) expected volatility of the Company's Common Stock price, (ii) the periods of time over which employees and Board Directors are expected to hold their options prior to exercise (expected lives), (iii) expected dividend yield on the Company's Common Stock, and (iv) risk-free interest rates, which are based on quoted U.S. Treasury rates for securities with maturities approximating the options' expected lives. The Company used their own historical volatility in determining the volatility to be used. The expected term of the stock option grants was calculated using the "simplified" method in accordance with the SEC Staff Accounting Bulletin 107. The "simplified" method was used since the Company believes its historical data does not provide a reasonable basis upon which to estimate expected term and the Company does not have enough option exercise data from its grants issued to support its own estimate as a result of vesting terms and changes in the stock price. The expected dividend yield is zero as the Company has never paid dividends to common shareholders and does not currently anticipate paying any in the foreseeable future.

In determining the fair value of the stock options granted during the twelve months ended October 31, 2015 and 2014, the Company used the following inputs in its BSM:

|                         | Year Ended       |                  |
|-------------------------|------------------|------------------|
|                         | October 31, 2015 | October 31, 2014 |
| Expected Term           | 5-10 years       | 5 years          |
| Expected Volatility     | 109.26%-154.54%  | 151.38%-171.12%  |
| Expected Dividends      | 0                | 0                |
| Risk Free Interest Rate | 1.41%-2.27%      | 1.39%-1.72%      |

Total compensation cost related to the Company's outstanding stock options, recognized in the statement of operations for twelve months ended October 31, 2015 and 2014 was approximately \$9,521,000 and \$920,000, respectively.

During the twelve months ended October 31, 2015, 1,668,995 options were granted with a total grant date fair value of approximately \$29,014,000. During the twelve months ended October 31, 2014, 36,000 options were granted with a total grant date fair value of approximately \$145,000.

During the twelve months ended October 31, 2015, options to purchase 137,667 shares of common stock were exercised, which resulted in cash proceeds of \$58,400.

As of October 31, 2015, there was approximately \$19,718,000 of unrecognized compensation cost related to non-vested stock option awards, which is expected to be recognized over a remaining weighted average vesting period of approximately 1.35 years.

As of October 31, 2015, the aggregate intrinsic value of vested and exercisable options was approximately \$271,000.

*Shares Issued to consultants*

During the twelve months ended October 31, 2015, 378,538 shares of Common Stock valued at \$4,707,440 were issued to consultants for services. The Company recorded a liability on its balance sheet for \$55,000 for shares earned pursuant to consulting agreements but not delivered.

During the twelve months ended October 31, 2014, 405,603 shares of Common Stock valued at \$1,551,591 were issued to consultants for services. The common stock share values were based on the dates the shares vested.

The following table summarizes share-based compensation expense included in the Statement of Operations by expense category for years ended October 31, 2015 and 2014, respectively:

|                            | Year Ended October 31, |             |
|----------------------------|------------------------|-------------|
|                            | 2015                   | 2014        |
| Research and development   | \$6,293,791            | \$1,250,747 |
| General and administrative | 15,137,239             | 4,114,863   |
| Total                      | \$21,431,030           | \$5,365,610 |

## 2011 Employee Stock Purchase Plan

The Company's Board of Directors adopted the Advaxis, Inc. 2011 Employee Stock Purchase Plan, which the Company's refers to as the ESPP, on August 22, 2011, and the Company's shareholders approved the ESPP on September 27, 2011. The ESPP allows employees to purchase Common Stock of the Company at a 15% discount to the market price on designated exercise dates. Employees were eligible to participate in the ESPP beginning December 30, 2011. 40,000 shares of the Company's Common Stock are reserved for issuance under the ESPP.

During the twelve months ended October 31, 2015, \$28,791 was withheld from employees, on an after-tax basis, in order to purchase an aggregate of 7,063 shares of Company's Common Stock. During the twelve months ended October 31, 2014, \$6,251 was withheld from employees, on an after-tax basis, in order to purchase 2,110 shares of the Company's Common Stock. As of October 31, 2015, 22,827 shares of Company's Common Stock remain available for issuance under the ESPP.

## 10. COMMITMENTS AND CONTINGENCIES:

### *Legal Proceedings*

### *Iliad Research and Trading*

On March 24, 2014, Iliad Research and Trading, L.P. ("Iliad") filed a Complaint against the Company in the Third Judicial District Court of Salt Lake County, Utah. On June 30, 2014, after Iliad had filed an Amended Complaint, the Company removed the action to the United States District Court for the District of Utah. On August 1, 2014, Iliad filed a Second Amended Complaint (the "SAC"). Iliad alleged that the Company granted a participation right to Tonaquint, Inc. ("Tonaquint") in a securities purchase agreement between Tonaquint and the Company (the "Purchase Agreement"), pursuant to which Tonaquint was entitled to participate in transactions that the Company structured in accordance with Section 3(a)(10) of the Securities Act of 1933, as amended. Iliad further alleged that the Company's settlement with Ironridge Global IV, Ltd. ("Ironridge"), pursuant to which the Company issued certain shares of its Common Stock to Ironridge in reliance on the Section 3(a)(10) exemption, occurred without adequate notice for Tonaquint to exercise its participation right. In addition, Iliad alleged that it acquired all of Tonaquint's rights under the Purchase Agreement in April 2013. The SAC purports to assert claims for breach of contract (express and implied), fraud (federal securities, state securities and common law) and conversion.

On November 24, 2014, in response to the Company's motion to dismiss, the Court dismissed the conversion claim but denied the remainder of the motion. On December 8, 2014, Advaxis filed its answer to the SAC and a counterclaim (the "Counterclaim"), alleging that Iliad – by purporting to have surreptitiously preserved its claim for breach of Tonaquint's alleged right to participate in the Ironridge transaction – had fraudulently induced Advaxis to enter into the

parties' post-assignment Exchange and Settlement Agreement and, in the alternative, had breached the covenant of good faith and fair dealing implied therein. On January 23, 2015, Iliad filed its Reply to Counterclaim. On May 4, 2015, in response to Iliad's motion for partial summary judgment concerning liability on the express contract claim and Advaxis' Rule 56(d) motion to deny that motion and allow discovery, the Court found that Advaxis had materially breached the Purchase Agreement.

On September 10, 2015, the parties entered into a definitive confidential settlement agreement and the case was dismissed.

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*KCM*

On August 21, 2015, Knoll Capital Management L.P. (“KCM”) filed a complaint against the Company in the Delaware Court of Chancery. The complaint alleges the existence of an oral agreement for the purchase by Knoll from the Company of 1,666,666.67 shares of Company stock at a price of \$3.00 per share. KCM alleges that the Company breached this alleged agreement and seeks specific performance or, alternatively, money damages for breach of contract. KCM served the Company with the complaint on August 31, 2015, and then served an amended complaint on October 16, 2015. The Company moved to dismiss the amended complaint on October 26, 2015. A hearing on the motion to dismiss is scheduled for January 11, 2016. The Company intends to defend itself vigorously.

*Numoda*

On June 19, 2009, the Company entered into a master agreement, and on July 8, 2009, entered into a Project Agreement with Numoda Corporation (“Numoda”), to oversee Phase 2 clinical activity with axalimogene filolisbac for the treatment of invasive cervical cancer and cervical intraepithelial neoplasia.

On October 1, 2014, the Company filed a Complaint against Numoda seeking a declaratory judgment that, with its tender to Numoda of a check for \$68,884, the Company had fully performed the parties’ Project Agreement and that Numoda was not entitled to interest, costs or attorneys’ fees thereunder or otherwise. On January 23, 2015, the Company filed an Amended Complaint against Numoda seeking an order directing Numoda to specifically perform its obligation to deliver to Advaxis all materials, information and other data generated under the parties’ Project Agreement. On February 20, 2015, Numoda filed an Answer denying liability and asserting a number of affirmative defenses. With Court approval of a stipulation of the parties, the Preliminary Conference was adjourned from May 28, 2015 until October 29, 2015. Before the Preliminary Conference occurred, the Court adjourned it without date. On November 20, 2015, the Company and Numoda reached a confidential agreement in principal, which is subject to more formal documentation, to resolve the action.

*Larkin and Bono*

On July 27, 2015, a derivative complaint was filed by a purported Company shareholder in the Court of Chancery of the State of Delaware against certain of the Company’s officers and directors styled Timothy Larkin v. O’Connor, et al., Case No. 11338-CB (Del. Ch. July 27, 2015). The action was brought derivatively on behalf of the Company, which is also named as a nominal defendant. On August 20, 2015, a related derivative complaint was filed by a purported Company shareholder in the United States District Court for the District of New Jersey against the same defendants styled David Bono v. O’Connor, et al., Case No. 3:15-CV-006326-FLW-DEA (D.N.J. Aug. 20, 2015). Both complaints are based on general allegations related to certain stock options granted to the individual defendants and

generally allege counts for breaches of fiduciary duty and unjust enrichment. The Bono complaint alleges additional claims for violation of Section 14(a) of the Securities Exchange Act of 1934 and for waste of corporate assets. Both complaints seek damages and costs of an unspecified amount, disgorgement of compensation obtained by the individual defendants, and injunctive relief. At this early stage of each proceeding, the Company does not express any opinion as to the likely outcome, but the Company intends to defend each action vigorously. On September 30, 2015, Defendants in the Larkin action filed a Motion to Dismiss, which is currently pending. On October 27, 2015, Defendants in the Bono action filed a Motion to Dismiss the Verified Stockholder Derivative Complaint or, in the Alternative, to Stay, which is currently pending.

### *Clinical Trial Collaboration Agreements*

#### *Incyte*

On February 10, 2015, the Company entered into a Clinical Trial Collaboration Agreement (the “Incyte Agreement”) with Incyte Corporation (“Incyte”) for the development and analysis of a combination therapy for the treatment of cervical cancer. Under the terms of the Incyte Agreement, the parties will contribute their respective compounds to be dosed in combination during the course of the study, with Incyte acting as the sponsor of the study and taking the lead role in its conduct. The Incyte Agreement is to continue in full force and effect until completion of the final study report or until earlier termination by either party. Costs for the study are to be split between the parties, and Incyte will provide us with an invoice and supporting documents of our share of the costs incurred through the end of each calendar quarter. During the year ended October 31, 2015, the Company incurred approximately \$124,100 in expenses pertaining to the Incyte agreement, and such expenses were a component of research and development expenses in the statement of operations.

#### *Merck & Co., Inc.*

On August 22, 2014, the Company entered into a Clinical Trial Collaboration and Supply Agreement (the “Merck Agreement”) with Merck, pursuant to which the parties will collaborate on a Phase 1/2 dose-escalation and safety study. The Phase 1 portion of the study will evaluate the safety of our Lm-LLO based immunotherapy for prostate cancer, ADXS31-142 (the “Advaxis Compound”) as monotherapy and in combination with KEYTRUDA® (pembrolizumab), Merck’s humanized monoclonal antibody against PD-1, (the “Merck Compound”) to determine a recommended Phase 2 combination dose. The Phase 2 portion will evaluate the safety and efficacy of the Advaxis Compound in combination with the Merck Compound. Both phases of the study will be in patients with previously treated metastatic castration-resistant prostate cancer. A joint development committee, comprised of equal representatives from both parties, is responsible for coordinating all regulatory and other activities under, and pursuant to, the Merck Agreement.

Each party is responsible for their own internal costs and expenses to support the study, while we will be responsible for all third party costs of conducting the study. Merck will be responsible for manufacturing and supplying the Merck Compound. We will be responsible for manufacturing and supplying the Advaxis Compound. The Company will be the sponsor of the study and hold the IND related to the study.

All data and results generated under the study (“Collaboration Data”) will be jointly owned by the parties, except that ownership of data and information generated from sample analysis to be performed by each party on its respective compound will be owned by the party conducting such testing. All rights to all inventions and discoveries, which claim or cover the combined use of the Advaxis Compound and the Merck Compound shall belong jointly to the parties. Inventions and discoveries relating solely to the Advaxis Compound, or a live attenuated bacterial vaccine, shall be the exclusive property of us. Inventions and discoveries relating solely to the Merck Compound, or a PD-1 antagonist, shall be the exclusive property of Merck.

The Merck Agreement shall continue in full force and effect until completion of all of the obligations of the parties or a permitted termination.

During the years ended October 31 2015 and 2014, the Company incurred approximately \$1,723,000 and \$72,000, respectively, in expenses pertaining to the Merck agreement, and such expenses were a component of research and development expenses in the statement of operations.

#### *MedImmune/AstraZeneca*

On July 21, 2014, the Company entered into a Clinical Trial Collaboration Agreement (the “MedImmune Agreement”) with MedImmune, the global biologics research and development arm of AstraZeneca, pursuant to which the parties intend to initiate a Phase 1/2 clinical study in the United States to evaluate the safety and efficacy of MedImmune’s investigational anti-PD-L1 immune checkpoint inhibitor, MEDI4736, in combination with our investigational Lm-LLO cancer immunotherapy, axalimogene filolisbac, as a combination treatment for patients with advanced, recurrent or refractory cervical cancer and HPV-associated head and neck cancer. A joint steering committee, composed of equal representatives from both parties, is responsible for various matters associated with the collaboration, including protocol approval, as well as reviewing and monitoring the progress of the study.

MedImmune will be responsible for providing MEDI4736 at no cost, as well as costs related to the proprietary assays performed by MedImmune or a third party on behalf of MedImmune. We will be the sponsor of the study and be responsible for the submission of all regulatory filings to support the study, the negotiation and execution of the clinical trial agreements associated with each study site, and the packaging and labelling of the Advaxis and MedImmune product candidates to be used in the study and the costs associated therewith. For a period beginning

upon the completion of the study and the receipt by MedImmune of the last final report for the study and ending one hundred twenty (120) days thereafter (unless extended), MedImmune will be granted first right to negotiate in good faith in an attempt to enter into an agreement with us with respect to the development, regulatory approval and commercialization of axalimogene filolisbac and MEDI4736 to be used in combination with each other for the treatment or prevention of cancer. Neither party is obligated to enter into such an agreement. In the event the parties do not enter an agreement and we obtain regulatory approval for axalimogene filolisbac in combination with any PD-1 antibody or PD-L1 antibody, we shall pay MedImmune a royalty obligation and one-time payment.

All intellectual property rights made, conceived or generated through the clinical trials that relate solely to a MedImmune development product shall be owned solely by MedImmune. All intellectual property rights made, conceived or generated through the clinical trials that relate solely to an Advaxis development product shall be owned solely by us. All intellectual property rights made, conceived or generated through the clinical trials that relate to the combination of one or more MedImmune development product and one or more Advaxis development product shall be jointly owned by both parties; provided, however that in the event the parties do not enter into a clinical development and commercialization agreement, we will not exploit, commercialize or license the joint inventions, except for the performance of its obligations under the MedImmune Agreement. MedImmune has the sole right to prosecute and enforce all patents and other intellectual property rights covering all joint inventions and all associated costs will be shared by the parties.

The MedImmune Agreement shall remain in effect until the earlier of (i) permitted termination, (ii) the parties entering into a clinical development and commercialization agreement or expiration of the negotiation period (unless extended), except with respect to rights that survive termination. Either party may terminate the MedImmune Agreement upon thirty (30) days written notice upon material breach of the other party, unless the breach is cured in such period or reasonable actions to cure the breach are initiated and pursued (if the breach is not capable of being cured during the 30-day notice period). In addition, either party may terminate the MedImmune Agreement immediately if the party determines in good faith that the trials may unreasonably affect the safety of trial subjects.

During the years ended October 31 2015 and 2014, the Company incurred approximately \$1,888,000 and \$50,000, respectively, in expenses pertaining to the MedImmune agreement, and such expenses were a component of research and development expenses in the statement of operations.

*Office & Laboratory Lease*

The Company's corporate offices are currently located at 305 College Road East, Princeton, New Jersey 08540. On April 1, 2011, the Company entered into a sublease agreement for such office, and the agreement expired on November 29, 2015.

In May 2015, the Company signed a direct lease for an expansion area, as well as a direct lease for the existing office, lab and vivarium space upon the expiration of the sublease agreement, which is approximately 20,000 square foot of space in total in Princeton, NJ. The lease term is seven years and expires on November 30, 2022. The Company paid a security deposit of \$82,426. The lease requires base annual rent of approximately \$442,000 with annual increases in increments between 2% and 4% throughout the remainder of the lease. Rent expense will be recognized on a straight line basis over the term of the lease. The lease contains two options to renew for five years each.

Rent expense for the years ended October 31, 2015 and 2014 was \$150,000 and \$330,000, respectively.

Future minimum payments of the Company's operating leases are as follows:

Year ended October 31,

|            |           |
|------------|-----------|
| 2016       | \$440,208 |
| 2017       | 450,541   |
| 2018       | 468,947   |
| 2019       | 488,153   |
| 2020       | 507,359   |
| Thereafter | 1,117,949 |

The Company plans to continue to rent necessary offices and laboratories to support its business.

*Sale of Net Operating Losses (NOLs)*

The Company may be eligible, from time to time, to receive cash from the sale of its Net Operating Losses under the State of New Jersey NOL Transfer Program. In December 2015, the Company received a net cash amount of \$1,609,349 from the sale of its state NOLs and research and development tax credits for the period ended October 31,

2014. In December 2014, the Company received a net cash amount of \$1,731,317 from the sale of its state NOLs and research and development tax credits for the periods ended October 31, 2012 and 2013.

## 11. INCOME TAXES:

The income tax provision (benefit) consists of the following:

|                                | October 31,<br>2015 | October 31,<br>2014 |
|--------------------------------|---------------------|---------------------|
| Federal                        |                     |                     |
| Current                        | \$-                 | \$-                 |
| Deferred                       | (14,513,684)        | (5,777,937)         |
| State and Local                |                     |                     |
| Current                        | (1,609,349 )        | (2,356,880)         |
| Deferred                       | (1,840,276 )        | 1,008,338           |
| Change in valuation allowance  | 16,353,960          | 4,769,599           |
| Income tax provision (benefit) | \$(1,609,349 )      | \$(2,356,880)       |

The Company has U.S. federal net operating loss carryovers (NOLs) of approximately \$101,075,000 and \$75,348,000 at October 31, 2015 and 2014, respectively, available to offset taxable income which expire beginning in 2023. If not used, these NOLs may be subject to limitation under Internal Revenue Code Section 382 should there be a greater than 50% ownership change as determined under the regulations. In 2016, the Company plans on undertaking a detailed analysis of any historical and/or current Section 382 ownership changes that may limit the utilization of the net operating loss carryovers. The Company also has New Jersey State Net Operating Loss carryovers of approximately \$27,496,000 and \$18,078,000 as of October 31, 2015 and October 31, 2014, respectively, available to offset future taxable income through 2035.

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon future generation for taxable income during the periods in which temporary differences representing net future deductible amounts become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. After consideration of all the information available, Management believes that significant uncertainty exists with respect to future realization of the deferred tax assets and has therefore established a full valuation allowance. For the years ended October 31, 2015 and 2014, the change in the valuation allowance was approximately \$16,353,960 and \$4,770,000.

The Company evaluated the provisions of ASC 740 related to the accounting for uncertainty in income taxes recognized in an enterprise's financial statements. ASC 740 prescribes a comprehensive model for how a company should recognize, present, and disclose uncertain positions that the company has taken or expects to take in its tax return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon

examination by taxing authorities. Differences between tax positions taken or expected to be taken in a tax return and the net benefit recognized and measured pursuant to the interpretation are referred to as “unrecognized benefits.” A liability is recognized (or amount of net operating loss carry forward or amount of tax refundable is reduced) for unrecognized tax benefit because it represents an enterprise’s potential future obligation to the taxing authority for a tax position that was not recognized as a result of applying the provisions of ASC 740.

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If applicable, interest costs related to the unrecognized tax benefits are required to be calculated and would be classified as "Other Income (Expense), Net" in the statement of operations. Penalties would be recognized as a component of "General and administrative" in the statement of operations.

No interest or penalties on unpaid tax were recorded during the years ended October 31, 2015 and October 31, 2014, respectively. As of October 31, 2015 and October 31, 2014, no liability for unrecognized tax benefits was required to be reported. The Company does not expect any significant changes in its unrecognized tax benefits in the next year.

The Company files tax returns in the U.S. federal and state jurisdictions and is subject to examination by tax authorities beginning with the year ended October 31, 2012.

The Company's deferred tax assets (liabilities) consisted of the effects of temporary differences attributable to the following:

|  | Years Ended         |                     |
|--|---------------------|---------------------|
|  | October 31,<br>2015 | October 31,<br>2014 |
| <b>Deferred Tax Assets</b>                     |                     |                     |
| Net operating loss carryovers                  | \$34,366,000        | \$26,685,000        |
| Stock-based compensation                       | 10,282,000          | 3,467,000           |
| Other deferred tax assets                      | 4,878,000           | 2,094,000           |
| Total deferred tax assets                      | \$49,526,000        | \$32,246,000        |
| Valuation allowance                            | (47,466,000)        | (31,112,000)        |
| Deferred tax asset, net of valuation allowance | \$2,060,000         | \$1,134,000         |
| <b>Deferred Tax Liabilities</b>                |                     |                     |
| Other deferred tax liabilities                 | (2,060,000 )        | (1,134,000 )        |
| Total deferred tax liabilities                 | \$(2,060,000 )      | \$(1,134,000 )      |
| Net deferred tax asset (liability)             | \$-                 | \$-                 |

The expected tax (expense) benefit based on the statutory rate is reconciled with actual tax expense benefit as follows:

|  | Years Ended    |                |
|--|----------------|----------------|
|  | October<br>31, | October<br>31, |



|   | 2015   | 2014    |
|---|--------|---------|
| US Federal statutory rate                                 | 34.0 % | 34.0    |
| State income tax, net of federal benefit                  | 5.9    | 5.9     |
| Deferred tax adjustment                                   | (2.2 ) | (13.3 ) |
| Change in valuation allowance                             | (33.6) | (25.3 ) |
| Income tax benefit from sale of New Jersey NOL carryovers | 3.3    | 12.5    |
| Other permanent differences                               | (4.1 ) | (1.3 )  |
| Income tax (provision) benefit                            | 3.3 %  | 12.5 %  |

## 12. SHAREHOLDERS' EQUITY:

### *Registered Direct Offerings*

On August 26, 2015, the Company entered into a licensing agreement with Knight Therapeutics Inc. ("Knight"), a Canadian-based specialty pharmaceutical company focused on acquiring, in-licensing, selling and marketing innovative prescription and over-the-counter pharmaceutical products, to commercialize in Canada the Company's product candidates. Under the terms of the licensing agreement, Knight will be responsible to conduct and fund all regulatory and commercial activities in Canada. The Company is eligible to receive royalty and sales milestones as defined in the agreement.

In connection with the licensing agreement, the Company sold directly to Knight 359,454 shares of the common stock at \$13.91 per share. In addition, the Company sold directly to Sectoral Asset Management, a leading Canadian-based global healthcare investment advisor, 1,437,815 shares of common stock at \$13.91 per share. The combined net proceeds to the Company from these direct investments was approximately \$25 million. The sale of the shares closed on August 28, 2015.

On February 18, 2015, the Company priced a registered direct offering of 3,068,095 shares of its Common Stock at \$7.50 per share. The transaction closed on February 19, 2015, and the Company received gross proceeds of approximately \$23.0 million from the offering. After deducting offering expenses, the net proceeds from the offering were approximately \$22.3 million.

On December 19, 2014, the Company priced a registered direct offering of 3,940,801 shares of its Common Stock at \$4.25 per share. The transaction closed on December 22, 2014, and the Company received gross proceeds of approximately \$16.7 million from the offering. After deducting offering expenses, the net proceeds from the offering were approximately \$15.8 million.

#### *Public Offerings*

On May 5, 2015, the Company closed on an underwritten public offering of 2,800,000 shares of Common Stock at a public offering price of \$19.00 per share. On May 20, 2015, the Company closed the underwriters' overallotment option to purchase 420,000 shares of its Common Stock at a public offering price of \$19.00 per share. The Company received gross proceeds of approximately \$61.2 million from the May 2015 public offerings. After deducting offering expenses, the net proceeds from the May 2015 public offerings were approximately \$56.7 million.

On March 31, 2014, the Company closed its public offering of 4,692,000 shares of Common Stock, including 612,000 shares that were offered and sold by the Company pursuant to the full exercise of the underwriters' over-allotment option, at a price to the public of \$3.00 per share. Total gross proceeds from the offering were \$14 million. After deducting underwriting discounts and commissions and other offering expenses paid by the Company, net proceeds were approximately \$12.7 million.

#### *Licensing Agreement – Global BioPharma Inc.*

On December 9, 2013, the Company entered into an exclusive licensing agreement for the development and commercialization of axalimogene filolisbac with Global BioPharma, Inc. ("GBP"), a Taiwanese based biotech

company funded by a group of investors led by Taiwan Biotech Co., Ltd (TBC).

GBP plans to conduct registration trials with axalimogene filolisbac for the treatment of advanced cervical cancer. GBP is also planning to conduct a randomized Phase 2, open-label, controlled study in HPV-associated NSCLC in patients following first-line induction chemotherapy. Pending Taiwanese FDA approval, the study is planned to initiate in 2016 and will enroll up to 124 patients. This trial will be fully funded by GBP. GBP will continue to explore the use of our lead product candidate in several other indications including head and neck, and anal cancer.

GBP will pay Advaxis event-based financial milestones, an annual development fee, and annual net sales royalty payments in the high single to double digits. In addition, as an upfront payment, GBP made an investment in Advaxis of \$400,000 by purchasing from the Company 108,724 shares of its Common Stock at a price of \$3.68 per share, GBP also received 100,000 warrants at an exercise price of \$5.52 which expire in December 2018.

GBP will be responsible for all clinical development and commercialization costs in the GBP territory. GBP will also reimburse the Company \$2.25 million toward its U.S. registrational study, where such payment will help to offset development costs. GBP is committed to establishing manufacturing capabilities for its own territory and to serving as a secondary manufacturing source for Advaxis in the future. Under the terms of the agreement, Advaxis will exclusively license the rights of axalimogene filolisbac to GBP for Asia, Africa, and former USSR territory, exclusive of India and certain other countries, for all HPV-associated indications. Advaxis retains exclusive rights to axalimogene filolisbac for the rest of the world.

#### *Licensing Agreement – Aratana Therapeutics*

On March 19, 2014, the Company and Aratana entered into a definitive Exclusive License Agreement (the “Aratana Agreement”). Pursuant to the Agreement, Advaxis granted Aratana an exclusive, worldwide, royalty-bearing, license, with the right to sublicense, certain Advaxis proprietary technology that enables Aratana to develop and commercialize animal health products that will be targeted for treatment of osteosarcoma and other cancer indications in animals. Under the terms of the Aratana Agreement, Aratana paid an upfront payment to the Company, of \$1 million. As this license has stand-alone value to Aratana (who has the ability to sublicense) and was delivered to Aratana, upon execution of the Aratana Agreement, the Company recorded the \$1 million payment as licensing revenue in the three months ended April 30, 2014. Aratana will also pay the Company up to an additional \$36.5 million based on the achievement of certain milestones with respect to the advancement of products pursuant to the terms of the Aratana Agreement. In addition, Aratana may pay the Company an additional \$15 million in cumulative sales milestones pursuant to the terms of the Aratana Agreement.

Advaxis (i) issued and sold 306,122 shares of Advaxis’ Common Stock to Aratana at a price of \$4.90 per share, which was equal to the closing price of the Common Stock on the NASDAQ Capital Market on March 19, 2014, and (ii) issued a ten-year warrant to Aratana giving Aratana the right to purchase up to 153,061 additional shares of Advaxis’ Common Stock at an exercise price of \$4.90 per share. In connection with the sale of the Common Stock and

warrants, Advaxis received aggregate net proceeds of \$1,500,000.

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Based on the above licensing agreement, the Company expects to derive the majority of revenue from patent licensing if clinical development is successful. In general, these revenue arrangements provide for the payment of contractually determined fees in consideration for the grant of certain intellectual property rights for patented technologies owned or controlled by the Company. The intellectual property rights granted may be perpetual in nature, or upon the final milestones being met, or can be granted for a defined, relatively short period of time, with the licensee possessing the right to renew the agreement at the end of each contractual term for an additional minimum upfront payment. The Company recognizes licensing fees when there is persuasive evidence of a licensing arrangement, fees are fixed or determinable, delivery has occurred and collectability is reasonably assured.

### *Stock Purchase Agreements*

On May 15, 2014, the Company issued 45,323 shares of its Common Stock pursuant to the Securities Purchase Agreement with Yenson.

## **13. FAIR VALUE**

The authoritative guidance for fair value measurements defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or the most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Market participants are buyers and sellers in the principal market that are (i) independent, (ii) knowledgeable, (iii) able to transact, and (iv) willing to transact. The guidance describes a fair value hierarchy based on the levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

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 corroborated by observable market data or 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 value of the assets or liabilities.

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The following table provides the assets and liabilities carried at fair value measured on a recurring basis as of October 31, 2015 and October 31, 2014:

| October 31, 2015  | Level 1 | Level 2 | Level 3 | Total  |
|---|---------|---------|---------|--------|
| Common stock warrant liability, warrants exercisable at \$10.63- \$18.75 from November 2015 through August 2017 | -       | -       | 89,211  | 89,211 |

| October 31, 2014  | Level 1 | Level 2 | Level 3  | Total    |
|---|---------|---------|----------|----------|
| Common stock warrant liability, warrants exercisable at \$2.76 - \$21.25 from November 2014 through August 2017 | \$ -    | \$ -    | \$32,091 | \$32,091 |

**Common stock warrant liability:**

|   | October 31, |           |
|---|-------------|-----------|
|   | 2015        | 2014      |
| Beginning balance   | \$32,091    | \$646,734 |
| Issuance of additional warrants due to anti-dilution provisions | 8,169       | 4,446     |
| Change in fair value  | 48,950      | (619,089) |
| Ending Balance  | \$89,211    | \$32,091  |

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#### 14. SUBSEQUENT EVENTS

On November 3, 2015, the Company issued 1,667 shares of Common Stock to a member of management, which represents the anniversary vesting period of an inducement grant pursuant to his Employment Agreement.

On November 5, 2015, the Company granted to executives 1,090,000 options with a fair value of \$11,677,538. The options vest annually in equal installments such that 100% of the options will by the third anniversary of the grant date, and the vesting of 350,000 of the options are subject to a performance condition. The stock options vest one-third after the one year anniversary, one-third after the two year anniversary and one-third after the three year anniversary.

On November 5, 2015, the Company granted to Directors 295,000 options with a fair value of \$3,160,432. The options vest annually in equal installments such that 100% of the options will by the third anniversary of the grant date. The stock options vest one-third after the one year anniversary, one-third after the two year anniversary and one-third after the three year anniversary.

On November 5, 2015, the Company issued 4,687 shares of Common Stock to the Board of Directors, which represents a portion of their quarterly retainer fees.

On November 16, 2015, the Company issued 2,500 shares of Common Stock a member of management, which represents the initial vesting period of an inducement grant pursuant to his Employment Agreement.

On November 20, 2015, the Company issued 16,467 shares of Common Stock valued at \$203,547 to accredited investors as payment for consulting services rendered.

On November 30, 2015, the Company issued 1,195 shares of Common Stock to its Executive Officers, pursuant to their Employment Agreements.

On December 1, 2015, the Company issued 1,657 shares of Common Stock valued at \$20,000 to an accredited investor as payment for consulting services rendered.

On December 7, 2015, the Company issued 1,875 shares of Common Stock to members of management, which represents the initial vesting period of an inducement grant pursuant to their Employment Agreements.

On December 21, 2015, the Company issued 5,625 shares of Common Stock to members of management, which represents the initial vesting period of an inducement grant pursuant to their Employment Agreements.

On December 29, 2015, the Company issued 122,662 shares of Common Stock to an accredited investor, pursuant to a warrant exercise.

On December 31, 2015, the Company issued 2,044 shares of Common Stock to its Executive officers, pursuant to their Employment Agreements.

On January 4, 2016, the Company issued 11,875 shares of Common Stock to members of management, which represents the initial vesting period of an inducement grant pursuant to their Employment Agreements.

On January 7, 2016, the Company issued 5,000 of Common Stock valued at \$43,150 to an accredited investor as payment for consulting services rendered.



