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

FORM 10-K

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

For the fiscal year ended December 31, 2015

☐ TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE EXCHANGE ACT

For the transition period from _____ to _____

000-55016 (Commission file number)

Amarantus Bioscience Holdings, Inc.

(Exact name of registrant as specified in its charter)

Nevada	**26-0690857**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

655 Montgomery Street, Suite 900, San Francisco, CA 94111
(415) 688-4484
(Address and telephone number of principal executive offices)

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

Securities registered pursuant to Section 12(g) of the Act: Common Stock, par value $0.001 per share

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

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

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

Indicate by check mark 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 during the preceding 12 months (or 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 is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or amendment to this Form 10-K. Yes ☒ No ☐

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2015, was $42,400,694 based upon the closing price of the Company's common stock on June 30, 2015

As of May 11, 2016, there were 67,507,073 shares of common stock outstanding.

AMARANTUS BIOSCIENCE HOLDINGS, INC.

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PART I

Forward-Looking Statements

This Annual Report on Form 10-K (including the section regarding Management's Discussion and Analysis or Plan of Operation) contains forward-looking statements regarding our business, financial condition, results of operations and prospects. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements, but are not deemed to represent an all-inclusive means of identifying forward-looking statements as denoted in this Annual Report on Form 10-K. Additionally, statements concerning future matters are forward-looking statements.

Although forward-looking statements in this Annual Report on Form 10-K reflect the good faith judgment of our Management, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties and actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include, without limitation, those specifically addressed under the heading "Risks Factors" below, as well as those discussed elsewhere in this Annual Report on Form 10-K. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K. We file reports with the Securities and Exchange Commission ("SEC"). Our electronic filings with the United States Securities and Exchange Commission (including 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) are available free of charge on the Securities and Exchange Commission's website at http://www.sec.gov. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580 Washington D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

We undertake no obligation to revise or update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this Annual Report on Form 10-K, except as required by law. Readers are urged to carefully review and consider the various disclosures made throughout the entirety of this Annual Report, which are designed to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects.

Item 1. Business

Company Overview

Amarantus Bioscience Holdings, Inc. ("the Company") is biopharmaceutical holding company founded in January 2008. We own, or have exclusive licenses, to various product candidates in the therapeutic and diagnostic sectors of the Life Sciences industry. We are developing a regenerative medicine cell therapy-based autologous skin replacement product called Engineered Skin substitute ("ESS") in mid-stage clinical development for the treatment of life-threatening severe burns. ESS is expected to reduce the need for traditional skin grafts by speeding the time to wound closure of large burns and reducing infection risks. Our wholly-owned subsidiary Cutanogen Corp. is developing ESS.

The Company is also developing a mid-stage clinical stage pharmaceutical drug candidate, Eltoprazine, as a symptomatic treatment for Parkinson's disease levodopa-induced dyskinesias or PD-LID, Attention Hyperactivity Disorder or ADHD, and Alzheimer's disease-related aggression. In addition, we are in pre-clinical development of a biologic protein product candidate Mesencephalic Astrocyte-derived Neurotrophic Factor,MANF, as a vision loss the treatment for retinitis pigmentosaor RP and retinal artery occlusion or RAO. The Company, through its wholly-owned subsidiary, Amarantus Diagnostics, is developing diagnostic candidates for multiple sclerosis ("MSprecise®) and Alzheimer's disease ("LymPro Test®").

The Company is evaluating strategic options to fund its ongoing business operations and may consider the sale and/or partnerships of some or all of its assets and/or subsidiaries.

Reverse Stock Split In Q2/2015

On May 2, 2015, the Company's Board of Directors and stockholders approved a 1-for-150 reverse stock split of the Company's authorized and issued and outstanding common stock. The reverse stock split became effective on June 10, 2015. Upon the effectiveness of the reverse stock split, (i) every one hundred and fifty shares of outstanding common stock was combined into one share of common stock, (ii) the number of shares of common stock into which each outstanding warrant or option to purchase common stock is exercisable was proportionally decreased, (iii) the exercise price of each outstanding warrant or option to purchase common stock was proportionately increased, and (iv) the conversion ratio for each share of preferred stock outstanding was proportionately reduced.

Unless otherwise indicated, all of the share numbers, share prices and exercise prices in these consolidated financial statements have been adjusted, on a retroactive basis, to reflect this 1-for-150 reverse stock split.

Principal Products in Development

Engineered Skin Substitute (ESS) development by wholly-owned subsidiary Cutanogen Corporation

In July 2015, we completed the acquisition of Cutanogen Corporation ("Cutanogen"), a biotechnology company holding intellectual property for Engineered Skin Substitute (ESS), from Lonza Walkersville, a subsidiary of Lonza Group, Ltd. ESS is an autologous, full-thickness skin replacement product for the treatment of life threatening severe burns. Concurrent with the acquisition of Cutanogen, we engaged Lonza Walkersville to produce ESS for human clinical trials and subsequent commercial distribution. ESS has become the Company's primary development focus.

We believe ESS has the potential to become the standard of care in the treatment of severe burns. It a tissue-engineered skin prepared from autologous (patient's own) skin cells. The product candidate is produced from a small sample of the patient's remaining healthy skin. The sample is harvested from a portion of healthy skin remaining on a burn patient's body and is then shipped to Lonza's central laboratory facility. Proprietary ESS methodologies and techniques are applied to produce full thickness skin grafts containing both epidermal and dermal layers that cover sufficient surface area to close the deep, severe wounds covering the majority of the patient's body. The newly produced ESS skin grafts are then shipped to the burn center for surgical transplantation onto the original patient to facilitate wound closure. Wound closure is of critical importance in this setting to promote healing and to reduce the risk of a variety of infections, including sepsis. Researchers consider self-to-self skin grafts from autologous skin tissue to be ideal for burn treatment because they are less likely to be rejected by the immune system of the patient, unlike with porcine or cadaver grafts with which immune system rejection is likely.

ESS is being developed with financial support from a grant from the Armed Forces Institute for Regenerative Medicine (AFIRM). The AFIRM grant was awarded to support the IND and initial clinical studies. The Company also entered into a Cooperative Research and Development Agreement (CRADA) with the U.S. Army Institute of Surgical Research (USAISR) and Rutgers, The State University of New Jersey (Rutgers University), to support a Phase 2 clinical trial for the treatment of deep partial and full-thickness burns in adult patients, including US soldiers. The Phase 2 study is intended to evaluate the safety and efficacy of ESS versus meshed split thickness autograft, the current standard of care.

We have received orphan drug designation with the Food and Drug Administration (FDA for the treatment of full thickness burns covering over 50% of the total body surface area (TBSA). The Company has filed applications for rare pediatric disease designation (RPDD) and Orphan Drug Designation (ODD) for ESS in the treatment of Giant Congenital Melanocytic Nevi (GCMN), and intends to request RPDD and ODD from the FDA for the treatment of severe burns in children who are still growing. In addition, the Company intends to request fast-track designation and breakthrough designation pathways, for severe burns, severe burns in children who are still growing and GCMN.

Eltoprazine in development for the treatment of symptomatic neurological disorders

Eltoprazine is a small molecule 5HT1a/1b partial agonist in mid-stage clinical development for the treatment of symptomatic neurological disorders including Parkinson's disease levodopa-induced dyskinesia (PD-LID), Attention Deficit Hyperactivity Disorder (ADHD) and Alzheimer's disease aggression. Eltoprazine was originally developed by Solvay Pharmaceuticals for the treatment of aggression, including a successful Phase 2a Alzheimer's disease aggression clinical study. Eltoprazine has been evaluated in over 680 human subjects to date, with a well-established safety profile. Solvay out-licensed the Eltoprazine program to PsychoGenics. PsychoGenics licensed Eltoprazine in 2014 to Amarantus following a successful Phase 2 studies in PD-LID in Europe and successful Phase 2 clinical study Adult ADHD in the United States. In each study, both primary and secondary endpoints were met.

In March 2015, the Company received notification of approval from the FDA that IND 124224 was approved which allowed the Company to commence this clinical trial. We commenced a Phase 2b clinical study in PD LID, and enrolled one patient, but then paused enrollment due to the classification of PD LID as an orphan indication and due to internal prioritization of our ESS program. There is no pre-clinical, safety, or other activity concern about the use of Eltoprazine that was involved in this decision.

In February 2016, we received orphan drug designation (ODD) from the FDA for Eltoprazine in the treatment of Parkinson's disease levodopa-induced dyskinesia (PD-LID). We are currently evaluating strategic options for the further development of Eltoprazine, including potential out-licensing or spinouts of the program.

Mesencephalic Astrocyte-derived Neurotrophic Factor (MANF)

MANF is a biologic protein drug candidate that was discovered by the Company's Chief Scientific Officer, Dr. John Commissiong. It is believed to have broad potential as a treatment that reduces and/or prevents apoptosis (cell death) in response to injury or disease, via the unfolded protein response. We are the front-runner and primary holder of intellectual property around MANF, and are focusing on the development of MANF-based protein therapeutics in the areas of orphan ophthalmological conditions. MANF has demonstrated efficacy as a disease-modifying treatment in animal models of retinitis pigmentosa ("RP") and retinal artery occlusion ("RAO"). MANF has received orphan drug designation from the FDA for the treatment of RP and RAO.

We are planning the next phase of pre-clinical studies with MANF, and are continuing to work on manufacturing clinical-grade material for MANF human clinical development programs.

Alzheimer's disease and multiple sclerosis development by wholly-owned subsidiary Amarantus Diagnostics, Inc.

LymPro Test ®

The Lymphocyte Proliferation Test ("LymPro Test®", or "LymPro") is a diagnostic blood test for Alzheimer's disease originally developed by the University of Leipzig in Germany. The test works by evaluating the cell surface marker CD69 on peripheral blood lymphocytes following a mitogenic stimulation. The underlying scientific basis for LymPro is that Alzheimer's patients have a dysfunctional cellular machinery division process that inappropriately allows mature neurons in the brain to enter the mitotic process (cell division /cell cycle). When this happens the neurons start the cell division process, but cannot complete the process. This inappropriate cell division activation process is also present in the lymphocytes of Alzheimer's patients. The LymPro Test is available to the pharmaceutical industry under an investigational use only ("IUO") designation at the company's contracting laboratory, Icon Central Laboratories in Farmingdale, NY.

MSPrecise®

In January 2015, we acquired Diogenix, Inc. (now Amarantus Diagnostics), the developer of the MSPrecise ® diagnostic test which is a proprietary next-generation DNA sequencing (NGS) assay for the identification of patients with multiple sclerosis. MSPrecise ® utilizes next-generation sequencing to measure DNA mutations found in rearranged immunoglobulin genes in immune cells initially isolated from cerebrospinal fluid. MSPrecise ® offers a novel method of measuring changes in adaptive human immunity and may also be able to discern individuals whose disease is more progressive and requires more aggressive treatment. Unpublished results from a clinical validation study in relapsed remitting multiple sclerosis ("RRMS") demonstrated that MSPrecise® met the primary study endpoint in patients suspected of having RRMS and provided a clear improvement in classifying early-stage RRMS patients when compared with the published performance for the current diagnostic standard of care by cerebrospinal fluid (CSF) analysis. In this study, MSPrecise performed well as a standalone test, and was of greater predictive value when combined with the current standard of diagnosis, oligoclonal banding (OCB).

Additional Diagnostic Biomarkers

The Company owns intellectual property rights to two diagnostic blood test platforms known as NuroPro and BC-. NuroPro is a neurodegenerative disease diagnostic platform with a lead application in Parkinson's disease. BC-SeraPro is an oncology diagnostic platform with a lead application in breast cancer.

Phenoguard

MANF was discovered utilizing our proprietary PhenoGuard protein discovery technology, and we believe that this drug discovery platform can be used to discover other, similar neurotrophic factors. Our PhenoGuard technology currently consists of 88 cell lines, and we intend to expand the number of such cell lines as we conduct research directed towards the discovery of such additional neurotrophic factors. We have placed further work with our Phenoguard technology on hold, as we apply our resources to the continuing development of ESS.

Recent Developments

Amarantus Diagnostics Sale

On May 11, 2016 (the "Effective Date"), the Company entered into a Share Exchange Agreement (the "Exchange Agreement") among the Company, Amarantus Diagnostics, Inc., a wholly-owned subsidiary of the Company ("AMDX") and Avant Diagnostics, Inc. (the "Buyer"). Pursuant to the terms of the Exchange Agreement, the Buyer purchased 100% of the outstanding capital stock of AMDX from the Company (the "AMDX Sale"). The AMDX Sale closed upon the execution of the Exchange Agreement. Gerald Commissiong, President and Chief Executive Officer of the Company, became a member of the Buyer's Board of Directors (the "Board") upon closing of the AMDX Sale. A copy of the Exchange Agreement is attached hereto as Exhibit 2.1 and incorporated herein by reference.

The Buyer paid aggregate consideration of 80,000,000 shares of its common stock to the Company for the AMDX Sale, subject to the issuance of additional shares upon the occurrence of certain events set forth in the Exchange Agreement (the "AMDX Consideration"). During the thirty-six (36) months from May 11, 2016 (the "Measurement Period"), if AMDX generates sales of at least five million dollars ($5,000,000) with respect to MSPrecise®, during any consecutive 12-month period or twelve million dollars ($12,000,000) million cumulatively during the Measurement Period, the Buyer shall issue the Company an additional 10,000,000 shares of the Buyer's common stock (the "Additional AMDX Consideration") . Each share of Buyer common stock received in connection with the AMDX Sale shall be subject to a lock-up beginning on the Effective Date and ending on the earlier of (i) eighteen (18) months after such date or (ii) a Change in Control (as defined in the Exchange Agreement) or (iii) written consent of the parties to that certain escrow agreement entered into between the Buyer, AMDX, the Company and certain creditors of the Company (the "Lock-Up Period").

At the end of the Lock-Up Period, in the event that the AMDX Consideration has a value equal to or less than $3,000,000 in the aggregate on the date the Lock-Up Period expires (based on the average closing "print' prices at 4:00 p.m. of the Buyer's common stock on the last five days prior to the date the Lock-Up Period expires as listed or quoted on any national securities exchange or over-the-counter market (including any tier maintained by the OTC Markets, Inc.), as the case may be (the "Lock-Up Termination Date Closing Price") multiplied by the AMDX Consideration) (the "Lock-Up Termination Date"), the Buyer shall issue the Company such number of additional shares of its common stock (the "Additional Common Stock") equal to the lesser of (i) 9.99% of the outstanding shares of the Buyer's common stock as of the Lock-Up Termination Date or (ii) the difference between $3,000,000 and the value of the AMDX Consideration as of the Lock-Up Termination Date divided by the Lock-Up Termination Date Closing Price. Notwithstanding the foregoing, in lieu of issuance of any Additional Common Stock, the Buyer may, in its sole discretion, pay to the Buyer an amount in cash equal to the aggregate value of the Additional Buyer Common Stock to be issued. So long as the Company holds any shares of Additional Common Stock, at any meeting of the stockholders of the Buyer or any written action by consent of stockholders of the Buyer called for any matter, unless otherwise directed in writing by the Buyer, the Company shall vote or shall cause to be voted any issued and outstanding shares of Additional Common Stock owned by the Company as of the record date with respect to such meeting or consent as requested by the Buyer's chief executive officer.

The Exchange Agreement includes customary representations, warranties and covenants of the Company, AMDX and the Buyer made solely for the benefit of the parties to the Exchange Agreement. The assertions embodied in those representations and warranties were made solely for purposes of the contract among the Company, AMDX and the Buyer and may be subject to important qualifications and limitations agreed to by the Company, AMDX and the Buyer in connection with the negotiated terms. Moreover, some of those representations and warranties may not be accurate or complete as of any specified date, may be subject to a contractual standard of materiality different from those generally applicable to stockholders or may have been used for purposes of allocating risk among the Company, AMDX and the Buyer rather than establishing matters as facts. Investors are not third-party beneficiaries under the Exchange Agreement and should not rely on the representations, warranties and covenants in the Exchange Agreement or any description thereof as characterizations of the actual state of facts of the Company, AMDX and the Buyer or any of their respective subsidiaries or affiliates.

In connection with the Exchange Agreement, on the Effective Date, the Company entered into an escrow agreement dated May 11, 2016 by and among the Company, the Buyer, AMDX, holders of the Company's secured debt ("Secured Holders") and Robinson Brog Leinwand Greene Genovese & Gluck P.C., a professional corporation organized and existing under the laws of the State of New York, as Escrow Agent (the "Escrow Agreement") pursuant to which the AMDX Consideration and Additional AMDX Consideration (collectively, the "Escrow Shares") was deposited into escrow with the Escrow Agent to be held in escrow for the Lock-Up Period. 1.5 million of the Escrow

Shares can be released to the Secured Holders for any event of default under the agreements between the Secured Holders and the Company. In addition, 7.25 million of the Escrow Shares can be released to the Company to repay certain notes and 7.25 million of the Escrow Shares can be released to the Company in connection with a stock dividend by the Company to its holders of common stock. The remaining 74 million of the Escrow Shares can be sold and assigned by the Company; provided that no less than 70% of the net proceeds from any sale shall be used to repay certain notes of the Company or redeem outstanding shares of preferred stock.

In connection with the Exchange Agreement, on the Effective Date, the Buyer issued a convertible promissory note to the Company pursuant to which the Company purchased a note with aggregate principal amount of $50,000 for an aggregate purchase price of $50,000 (the "Note"). The Note bears interest at 12% per annum and matures one year from the date of issuance. The Note will be convertible at the option of the Company at any time into shares of common stock of the Buyer, at an initial conversion price equal to $0.20, subject to adjustment. The conversion price of the Note is subject to customary adjustments provisions for stock splits, stock dividends, recapitalizations and the like. The Buyer has contractually agreed to restrict its ability to convert the Note such that the number of shares of Buyer common stock held by the Company and its affiliates after such conversion does not exceed 4.99% of the Buyer's then issued and outstanding shares of common stock.

Eltoprazine

In February 2016, we received orphan drug designation (ODD) from the US FDA for Eltoprazine in the treatment of Parkinson's disease levodopa-induced dyskinesia (PD-LID).

Market

Diagnostics for Alzheimer's disease

Treatments for Severe Burns

A burn is a type of injury to flesh or skin caused by heat, electricity, chemicals, friction, or radiation. Burns that affect only the superficial skin are known as superficial or first-degree burns. When damage penetrates into some of the underlying layers, it is a partial-thickness or second-degree burn. In a full-thickness or third-degree burn, the injury extends to all layers of the skin. A fourth-degree burn additionally involves injury to deeper tissues, such as muscle or bone.

The treatment required depends on the severity of the burn. Superficial burns may be managed with little more than simple pain relievers, while major burns may require prolonged treatment in specialized burn centers. Full-thickness burns usually require surgical treatments, primarily skin grafting. According to the American Burn Association, there are currently approximately between 500 and 2000 cases annually involving burns covering over 50% of the patient's total body surface area. In this patient population, the mortality rate is approximately 40%. The long-term outcome is primarily related to the size of burn and the age of the person affected, and the speed with which the wound surface area can be closed.

Treatments for Parkinson's Disease Levodopa Induced Dyskinesia

Parkinson's disease (PD) is a severe neurological disorder characterized by tremor, muscle rigidity, and an inability to walk with a steady gait. According to a 2008 report generated by DataMonitor, there are over 4,000,000 PD patients worldwide spending in excess of $3 billion annually on treatments. It is widely accepted that with the increasing trend towards a longer lifespan coupled with the baby-boomer population approaching retirement, the incidence of Parkinson's disease is likely to double in the next 20 years. We believe that the potential market opportunity for a drug that could treat PD-LID exceeds $750M annually in the United States alone.

Levodopa (also known as L-dopa) remains the gold standard for the treatment of the debilitating motor symptoms of PD. A side effect of prolonged treatment with levodopa is the occurrence of levodopa-induced dyskinesia (PD-LID). PD-LID is characterized by involuntary non-purposeful movements of the head and neck, arms, legs or trunk. With continued levodopa treatment, and as PD progresses, PD-LID can become severely disabling and has been associated with a decrease in the quality of life for Parkinson's patients. There are currently no medications approved for the treatment of PD-LID. Reducing PD-LID is one of the greatest patient unmet medical needs in the treatment of advanced PD according to the Michael J. Fox Foundation. Although no drug is currently approved by the U.S. Food and Drug Administration ("FDA") for PD-LID, several studies have demonstrated efficacy in a subset of the PD LID population using a drug called Amantadine.

Treatments for Adult Attention Deficit Hyperactivity Disorder

Attention deficit hyperactivity disorder (ADHD) is a psychiatric disorder of the neurodevelopmental type in which there are significant problems of attention, hyperactivity, or acting impulsively. The condition can be difficult to tell apart from other disorders as well as that of high normal activity. ADHD management usually involves some combination of counseling, lifestyle changes, and medications. Most healthcare providers accept ADHD as a genuine disorder with debate in the scientific community mainly around how it is diagnosed and treated. The company estimates that the ADHD treatment market worldwide approaches $8 billion annually.

Treatments for Retinitis Pigmentosa

Retinitis Pigmentosa (RP) refers to a group of inherited diseases causing retinal degeneration. The cell-rich retina lines the back inside wall of the eye and is responsible for capturing images from the visual field. People with RP experience a gradual decline in their vision because photoreceptor cells (rods and cones) die. Symptoms include a progressive degeneration of peripheral and night vision as well as the degeneration in color perception and central vision; night blindness is one of the earliest and most frequent symptoms of RP. RP is typically diagnosed in adolescents and young adults. The rate of progression and degree of visual loss varies from person to person. Most people with RP are legally blind by age 40.

Diagnostics for Alzheimer's disease

Alzheimer's disease (AD) is a chronic neurodegenerative disorder affecting millions of people worldwide. It is the number one form of dementia in the world. The risk of being afflicted with AD increases with age, with one in nine people over the age of 65 having the disease. The prevalence of the disease is approximately 5,200,000 individuals in the US. On the other hand, the incidence (or rate at which

new cases of disease develop) is age dependent with approximately 53 new cases per 1,000 people age 65 to 74, 170 new cases per 1,000 people age 75 to 84, and 231 new cases per 1,000 people age 85 and older, with 454,000 new cases occurring in 2010 [Alzheimer's Association, 2013 Alzheimer's Disease Facts and Figures, Alzheimer's & Dementia, Volume 9, Issue 2]. AD is also the sixth leading cause of death across all ages in the United States [AA2013: 113], and its prevalence is expected to quadruple by 2050. It is estimated that the cost of caring for people with AD and other dementia's will increase from an estimated $203 billion in 2013 to a projected $1.2 trillion per year by 2050 with Medicare and Medicaid covering approximately 70% of such costs.

The cause and progression of Alzheimer's disease are not well understood. As of 2012, more than 1000 clinical trials have been or are being conducted to find ways to treat the disease, but it is unknown if any of the tested treatments will work.

According to the Alzheimer's Disease Foundation. It is widely accepted that with the increasing trend towards a longer lifespan coupled with the baby-boomer population approaching retirement, the incidence of Alzheimer's disease is likely to double in the next 20 years. The exponential increase in the expected number of patients presenting with AD not only represents a major area of unmet medical need, but it also represents a significant market opportunity for diagnostics for this disease. AD biomarker sales are currently at 1.5 billion USD, but are expected to double within the next 5 years (BCC research 2013).

Current clinical research focuses on the early phases of the disease. However, no accurate and convenient tools are available today for pre-dementia diagnosis of AD to support these efforts. Currently AD is diagnosed as a clinical entity using a process that combines cognition assessments with imaging- and spinal-fluid (CSF) tests. This diagnostic procedure may last for several months to a year and is usually initiated late in the disease development.

Several companies are focusing on blood as a test material. Typically these companies employ a multi-assay strategy (multiple RNAs or proteins) combined with advanced statistical tools/algorithms to develop disease-specific diagnostic models.

Diagnostics for Multiple Sclerosis

Multiple sclerosis (MS) is a disease in which the patient's immune system attacks the protective sheath (myelin) that covers nerves. Myelin damage disrupts communication between the brain and the rest of the body. Ultimately, the nerves themselves may deteriorate, a process that is currently irreversible.

Signs and symptoms vary widely, depending on the amount of damage and which nerves are affected. Some people with severe MS may lose the ability to walk independently or at all, while others experience long periods of remission during which they develop no new symptoms. There is no cure for multiple sclerosis. However, treatments can help speed recovery from attacks, modify the course of the disease and manage symptoms.

There are no specific diagnostic tests for MS. The diagnosis relies on ruling out other conditions that might produce similar signs and symptoms. The physician is likely to start with a thorough medical history and examination that may include the following:

- Blood tests, to help rule out infectious or inflammatory diseases with symptoms similar to MS.
- Spinal tap (lumbar puncture), in which a small sample of fluid is removed from the spinal canal for laboratory analysis. This sample can show abnormalities in white blood cells or antibodies that are associated with MS. Spinal tap can also help rule out viral infections and other conditions with symptoms similar to MS.
- Magnetic resonance imaging (MRI) which can reveal areas of MS (lesions) on the brain and spinal cord. The patient may receive an intravenous dye to highlight lesions that indicate the disease is in an active phase.

The current standard of care method of diagnosis for MS involves the time-intensive analysis of cerebral spinal fluid (CSF) through the oligoclonal banding (OCB) test, as well as MRI, as well as a comprehensive set of clinical tests to rule-out other neurological diseases.

In addition to undergoing several examinations, there is also the risk of false positives. OBC's test accuracy, for instance, is about 54% to 69%, which increases the chance for unnecessary and expensive treatments while delaying the real diagnosis. Misdiagnosis rates of over 50% have been routinely reported, as the cost for mis-prescribing MS treatments for patients with a false positive diagnosis has grown to an estimated $100,000 and $250,000.

There is currently an unmet need for a more accurate diagnostic for MS. Patients that present with MS-like clinical symptoms and evidence of non-specific neurological disease undergo a battery of tests in a diagnostic process that can take months or even years to complete. Unfortunately, the OCB test yields a high rate of false positive results, which can unnecessarily expose patients who do not have MS to chronic and expensive therapy that, in some cases, actually exacerbates their underlying disease. Alternatively, false negatives can delay the proper treatment of those patients who do have MS, possibly accelerating the development of permanent physical disability.

Competition

Treatments for Severe Burns

The current trend of severe burn wound care is focused on the emergence of various skin substitutes in the management of acute burn injury as well as post burn reconstructions. Skin substitutes have important roles in the treatment of deep dermal and full thickness wounds. At present, there is no ideal substitute in the market. Skin substitutes can be divided into two main classes, namely, biological and synthetic substitutes. The biological skin substitutes have a more intact extracellular matrix structure, while the synthetic skin substitutes can be synthesized on demand and can be modulated for specific purposes. Each class has its advantages and disadvantages. The biological skin substitutes may allow the construction of a more natural new dermis and allow excellent re-epithelialisation characteristics due to the presence of a basement membrane. Synthetic skin substitutes demonstrate the advantages of increase control over scaffold composition. The ultimate goal is to achieve an ideal skin substitute that provides an effective and scar-free wound healing.

Several companies have developed products for the treatment of severe burns. Among those companies are:

- Smith & Nephew Wound Management
- Genzyme Biosurgery
- Integra Life Sciences Corporation
- LifeCell Corporation/Kinetic Concepts
- Organogenesis Inc
- Intercytex
- Genzyme
- Advanced Biohealing/ Shire
- Cy Ttera/ NovoCell/ViaCyte
- Biomimetic Therapeutics Inc.
- RTI Biologics

Four of these companies, (Smith and Nephew, Genzyme, Organogenesis, Integra and Advanced Biohealing) have products that are FDA approved for use in burn patients.

Treatments for Parkinson's Disease Levodopa Induced Dyskinesia ('PD-LID")

Amantadine

Although no drug is currently approved by the U.S. Food and Drug Administration ("FDA") for PD-LID, several small and medium studies (enrolling fewer than 70 patients) have demonstrated efficacy using Symmetrel (Amantadine). Amantadine was initially developed as an antiviral medication to treat influenza in the 1960s and was coincidentally discovered as a treatment for Parkinson's disease. Amantadine usually provides only mild relief, but is the only drug currently used to treat PD LID.

Amantadine HCI (ADS-5102, developed by Adamas Pharmaceuticals):

ADS-5102, which is amantadine in high dose controlled-release version (HCI), is designed to address many of the limitations of immediate-release amantadine. In Adamas' clinical studies, the amantadine plasma concentration achieved from the early morning through mid-day is approximately two-times that reached from immediate-release amantadine, providing symptomatic relief to patients as they engage in their daily activities. The lower concentrations of ADS-5102 occurred in the evening, which may potentially reduce the negative effect of amantadine on sleep. In addition, ADS-5102 capsules can be opened to sprinkle the contents on food for use by Parkinson's disease patients who have difficulty swallowing due to their illness.

In the Phase 2/3 clinical study (the EASED study), ADS-5102 met its primary endpoint and several key secondary endpoints. Results from the EASED study were presented at the 17th International Congress of Parkinson's Disease and Movement Disorders and at the 9th World Parkinson's Congress. Adamas has reported positive topline data from a Phase 3 registration trial of ADS-5102 in PD LID. Adamas plans to submit a New Drug Application (NDA) to the US Food and Drug Administration (FDA) for ADS-5102 if a second Phase 32 trial confirms the findings.

Mavoglurant (AFQ056) (developed by Novartis):

Mavoglurant (AFQ056) is an antagonist of the glutamate receptor mGluR5 which was developed by Novartis (NVS) for several CNS indications, including PD-LID. In a 31 patient Phase 2 trial in patients with moderate-to-severe PD-LID, 15 patients were randomized to 25-150 mg mavoglurant twice daily and 16 patients were randomized to placebo. Patients in the active drug group experienced a significant reduction in symptoms as measured by the Lang-Fahn Activities in Daily living scale without negative impact on the effectiveness of the anti-Parkinson's efficacy of their ongoing dopaminergic therapy. Similar effects were seen in the second study, which examined the efficacy of mavoglurant in 28 patients with severe PD-LID and used the Modified Abnormal Movement Scale to measure efficacy. However, during 2013 and 2014, Novartis announced the results of its phase IIb/III studies on patients with fragile X syndrome (FXS) did not meet the primary endpoints, and in 2014, announced it will not continue the development of Mavoglurant.

Dipraglurant (in development by Addex Therapeutics):

Dipraglurant, an oral negative allosteric modulator (NAM) of the metabotropic glutamate receptor 5 (mGluR5) for the treatment of PD-LID was examined in a randomized, double blind, placebo controlled Phase 2a trial in 83 subjects with moderate-to-severe Parkinson's disease. Results show that dipraglurant was safe and well tolerated with the most important side effects being vertigo, blurred vision, and a drunk feeling but none of these was severe. Results on the modified AIMS scale showed statistically significant improvement on days 1 and 14, with clinically relevant reductions in the dipraglurant group on all three periods tested (days 1, 14, and 28). Addex has specifically been looking to out-license dipraglurant for the initiation of a Phase 2b program study since 2012.

Treatments for Adult ADHD

Adderall

Adderall is a psychostimulant pharmaceutical drug of the phenethylamine class used in the treatment of attention deficit hyperactivity disorder (ADHD) and narcolepsy. The medication is a mixture of amphetamine stereoisomer salts and inactive ingredients. By salt content, the active ingredients are 75% dextroamphetamine salts and 25% levoamphetamine salts. Adderall is available in immediate release and extended release formulations.

Methylphenidate

Methylphenidate is a psychostimulant drug and substituted phenethylamine approved for treatment of attention-deficit hyperactivity disorder (ADHD), postural orthostatic tachycardia syndrome and narcolepsy. It was first licensed by the U.S. Food and Drug Administration (FDA) in 1955 for treating what was then known as hyperactivity. Prescribed to patients beginning in 1960, the drug became heavily prescribed in the 1990s, when the diagnosis of ADHD itself became more widely accepted. Methylphenidate is sold as Concerta, Methylin, Ritalin, and Equasym XL

Dexmethylphenidate

Dexmethylphenidate, otherwise known as d-threo-methylphenidate (D-TMP), is the dextrorotatory enantiomer of methylphenidate. It is a norepinephrine-dopamine reuptake inhibitor (NDRI) and releasing agent and thus a psychostimulant, which affects the CNS. Dexmethylphenidate is sold as Focalin by Novartis, as Attenade by Celgene and as a generic drug by Teva, Mylan, and IntelliPharmaCeuticals.

Atomoxetine

Atomoxetine is a drug approved for the treatment of attention-deficit hyperactivity disorder (ADHD). It is a selective norepinephrine reuptake inhibitor (NRI). Atomoxetine is sold as Strattera.

Treatments for Retinitis Pigmentosa

The NT-501 (Renexus®) ECT implant system

The NT-501 (Renexus®) ECT implant system generates the neurotrophic cytokine CNTF for treating photoreceptor degeneration associated with retinitis pigmentosa (RP), macular telangiectasia (MacTel), and achromatopsia (ACHM). This product is being developed by Neurotech which has received orphan drug and Fast Track designation from the U.S. FDA for treatment of visual loss in RP.

Halorhodopsin gene therapy treatment

GenSight Biologics is developing a halorhodopsin gene therapy treatment of blindness based on the results of the work of Dr. Ernst Bamberg a member of GenSight Biologics SAB, using a haorhodopsin gene embedded into a specific AAV variant which has shown its capacity to transfer the gene only into cones. The potential treatment for RP is currently in preclinical development.

Diagnostics for Alzheimer's Disease

Cerebrospinal Fluid (CSF)

CSF samples and protein assays of particular analytes remain today the best tools in the diagnosis of Alzheimer's disease and encephalitis. The procedure involves a lumbar puncture - the insertion of a hallow cannula or needle into the lower spinal column in order to collect 5-10 ml of blood free CSF. Until recently there have not been any in vitro diagnostic quality assays available to replace the lumbar puncture diagnostic procedure and there may not be until Saladax / Ortho Clinical Diagnostics or Roche Diagnostics release their publically report CSF Ab42 and CSF Tau assays.

Positron Emission Tomography (PET)

PET requires large, multi-million dollar cameras which collect the radioactive decay of minute quantities of hot radioactive tracers injected into the blood stream. The tracers emit correlated photo pairs which indicate where the tracer is staining tissue in vivo. FDG-PET is an FDA-approved tracer which measures glucose metabolism and has been successfully used to image brain energy consumption. More recently Amyvid from Avid Radiopharmaceuticals, now Lilly Diagnostics, received FDA approval as an in vivo radiotracer to label the amyloid plaques of the brain. These studies typically cost $3,000-$5,000 per imaging session per patient and require patients travel to a facility with a PET facility rather than receive a diagnostic test in their clinician's office.

Magneto encephalography (MEG)

MEG instruments which are both physically large and costly to facilities wishing to purchase them, employ advanced superconducting magnets operating in near absolute zero temperature to measure minute brain currents. They are scarcely available in the US and Japan, let alone any other country in the world. They are primarily used for research and will likely never become commonplace in clinical practice due to their size and cost.

Magnetic Resonance Imaging (MRI)

MRI instruments are able to measure the gross anatomy of the brain within the skull with resolution approaching 100 microns in a standard 1.5T clinical MRI. Although they are costly and accessible only at an imaging center (in patient or outpatient), they are standard of care to insure that there is no gross brain tumor or evidence of white matter infarct, typical after sub-clinical or mini-strokes have occurred. In one costly modality, functional MRI is conducted whereby a patient is given tasks to complete while they are lying in a MRI brain scanner and asked to participate in task-based maneuvers to understand which anatomical structures are active during which dynamic task. These diagnostic studies are costly and difficult to implement with satisfactory results due to the distractions of motion artifacts and noise. In routine clinical practice, they are not commonly conducted.

Cognition

There are many companies creating computerized cognitive assessments of a human subject from a neuropsychological perspective. Many of these are considered reliable and easily administered in a clinician's office. Some of the cognitive assessment tools in the market today are the CogState battery of tasks, the CNS Vital Signs, the ImPACT test and the CANTAB battery. However, these cognition assessment tools have limitations on their ability to accurately and objectively measure brain function.

Diagnostics for Multiple Sclerosis

There is currently no single diagnostic test that is proof-positive for multiple sclerosis ("MS"). There is a set of accepted criteria for MS diagnosis, but even this system is imperfect. Since diagnosing MS can be very difficult, it must be done by a neurologist who specializes in treating MS.

An accurate diagnosis is currently based on the patient's medical history and neurological examination using tests of nervous system function. Much depends on the skill of the physician in asking the right questions to uncover information and to properly evaluate the signs and symptoms of a malfunctioning nervous system.

In addition to a thorough medical history and neurological examination, a variety of specialized procedures are helpful in accurately diagnosing MS. These include imaging techniques such as magnetic resonance imaging (MRI), spinal taps (examination of the cerebrospinal fluid that runs through the spinal column), and laboratory analysis of blood samples.

The precise image produced by MRI gives the neurologist clear evidence of scar tissue in the deep parts of the brain or spinal cord that is characteristic of MS. However, abnormal spots on the brain MRI can be caused by other conditions, so these images must be interpreted by the neurologist in light of all information about the patient. Similar lesions can be seen in elderly people or people with migraine headaches or high blood pressure. Confirming a diagnosis of MS and ruling out other possible causes requires expert interpretation of the MRI scan.

Performing a spinal tap to examine the cerebrospinal fluid might be helpful in diagnosing MS. An experienced MS neurologist may be able to confirm a suspected diagnosis of MS, particularly if the patient's history and physical examination suggest the presence of the disease. Abnormalities that might appear in the cerebrospinal fluid can be very helpful in establishing a diagnosis but, like other tests, spinal taps are not foolproof in diagnosing MS.

A blood test may help rule out conditions that imitate multiple sclerosis, but the presence of MS cannot be detected in the blood.

Manufacturing

We do not have any in-house manufacturing capabilities. The Company intends to outsource the manufacturing of its products to third party contractors, with special capabilities to manufacture chemical drugs and biologic drug candidates for submission and clinical testing under FDA guidelines.

Distribution & Marketing

We intend to develop our product candidates through successive de-risking milestones towards regulatory approval and seek marketing approval of our product candidates or effect partnering transactions with biopharmaceutical companies seeking to strategically fortify pipelines and fund the costly later-stage clinical development required to achieve successful commercialization. We do not anticipate selling products directly into the marketplace, although we may do so depending on market conditions. Our focus is to strategically effect partnering transactions which will provide distribution and marketing capabilities to sell products into the marketplace.

Government Regulation

In the United States, pharmaceutical products are subject to extensive regulation by the FDA. The Federal Food, Drug, and Cosmetic Act and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling, and import and export of pharmaceutical products. The FDA has very broad enforcement authority and failure to abide by applicable regulatory requirements can result in administrative or judicial sanctions being imposed on us, including warning letters, refusals of government contracts, clinical holds, civil penalties, injunctions, restitution, disgorgement of profits, recall or seizure of products, total or partial suspension of production or distribution, withdrawal of approval, refusal to approve pending applications, and criminal prosecution.

CLIA Certification for Diagnostic Products

The Company believes its diagnostic candidates will be initially be regulated as Laboratory Developed Tests ("LDTs") under the Clinical Laboratory Improvement Amendments ("CLIA"), and thereafter the Company may seek to gain FDA approval for its diagnostic candidates as In-Vitro Diagnostics ("IVDs").

Congress passed the Clinical Laboratory Improvement Amendments in 1988 to regulate development, evaluation, and use of LDTs. CLIA states that laboratories must demonstrate how well an LDT performs using certain performance standards. Laboratories that perform testing on human specimens for the diagnosis, prevention, or treatment of disease, or for the assessment of health, must comply with all applicable CLIA '88 regulations. These regulations, which were finalized in 2003, establish standards to help ensure the quality and accuracy of laboratory testing. While most common laboratory tests are commercial tests, manufactured and marketed to multiple laboratories, some new tests are developed, evaluated, and validated within one particular laboratory. These LDTs are used solely within that laboratory and are not distributed or sold to any other labs or health care facilities.

Because LDTs are not marketed to other labs or facilities, they do not require approval for marketing from the U.S. Food and Drug Administration (FDA) as do commercially developed and marketed tests. However, these types of tests must go through rigorous validation procedures and must meet several criteria before results can be used for decisions regarding patient care. These include demonstration of test accuracy, precision, sensitivity, and specificity.

FDA Approval Process for Therapeutic Products

We believe that our therapeutic products will be regulated by the FDA as drugs. No manufacturer may market a new drug until it has submitted a New Drug Application, or NDA, to the FDA, and the FDA has approved it. The steps required before the FDA may approve an NDA generally include:

- preclinical laboratory tests and animal tests conducted in compliance with FDA's good laboratory practice requirements;
- development, manufacture and testing of active pharmaceutical product and dosage forms suitable for human use in compliance with current good manufacturing practices, or GMP;
- the submission to the FDA of an investigational new drug application, or IND, for human clinical testing, which must become effective before human clinical trials may begin;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the product for its specific intended use(s);
- the submission to the FDA of a New Drug Application, or NDA; and
- FDA review and approval of the NDA.

Preclinical tests include laboratory evaluation of the product candidate, as well as animal studies to assess the potential safety and efficacy of the product candidate. The conduct of the pre-clinical tests must comply with federal regulations and requirements including good laboratory practices. We must submit the results of the preclinical tests, together with manufacturing information, analytical data and a proposed clinical trial protocol to the FDA as part of an IND, which must become effective before it may commence human clinical trials. The IND will automatically become effective 30 days after its receipt by the FDA, unless the FDA raises concerns or questions before that time about the conduct of the proposed trials. In such a case, we must work with the FDA to resolve any outstanding concerns before clinical trials can proceed. We cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trials. The study protocol and informed consent information for patients in clinical trials must also be submitted to an institutional review board for approval. An institutional review board may also require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the institutional review board's requirements or may impose other conditions.

Clinical trials involve the administration of the product candidate to humans under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control. Clinical trials are typically conducted in three sequential phases, though the phases may overlap or be combined. In Phase 1, the initial introduction of the drug into healthy human subjects, the drug is usually tested for safety (adverse effects), dosage tolerance and pharmacologic action, as well as to understand how the drug is taken up by and distributed within the body. Phase 2 usually involves studies in a limited patient population (individuals with the disease under study) to:

- evaluate preliminarily the efficacy of the drug for specific, targeted conditions;
- determine dosage tolerance and appropriate dosage as well as other important information about how to design larger Phase 3 trials; and
- identify possible adverse effects and safety risks.

Phase 3 trials generally further evaluate clinical efficacy and test for safety within an expanded patient population. The conduct of the clinical trials is subject to extensive regulation, including compliance with good clinical practice regulations and guidance.

The FDA may order the temporary or permanent discontinuation of a clinical trial at any time or impose other sanctions if it believes that the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. We may also suspend clinical trials at any time on various grounds.

The results of the preclinical and clinical studies, together with other detailed information, including the manufacture and composition of the product candidate, are submitted to the FDA in the form of an NDA requesting approval to market the drug. FDA approval of the NDA is required before marketing of the product may begin in the U.S. If the NDA contains all pertinent information and data, the FDA will "file" the application and begin review. The FDA may "refuse to file" the NDA if it does not contain all pertinent information and data. In that case, the applicant may resubmit the NDA when it contains the missing information and data. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of new drug applications. Most such applications for non-priority drug products are reviewed within 10 months. The review process, however, may be extended by FDA requests for additional information, preclinical or clinical studies, clarification regarding information already provided in the submission, or submission of a risk evaluation and mitigation strategy. The FDA may refer an application to an advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. Before approving an NDA, the FDA will typically inspect the facilities at which the product candidate is manufactured and will not approve the product candidate unless GMP compliance is satisfactory. FDA also typically inspects facilities responsible for performing animal testing, as well as clinical investigators who participate in clinical trials. The FDA may refuse to approve an NDA if applicable regulatory criteria are not satisfied, or may require additional testing or information. The FDA may also limit the indications for use and/or require post-marketing testing and surveillance to monitor the safety or efficacy of a product. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

The testing and approval process requires substantial time, effort and financial resources, and our product candidates may not be approved on a timely basis, if at all. The time and expense required to perform the clinical testing necessary to obtain FDA approval for regulated products can frequently exceed the time and expense of the research and development initially required to create the product. The results of preclinical studies and initial clinical trials of our product candidates are not necessarily predictive of the results from large-scale clinical trials, and clinical trials may be subject to additional costs, delays or modifications due to a number of factors, including difficulty in obtaining enough patients, investigators or product candidate supply. If we fail to obtain, or experience delays in obtaining, regulatory approvals or in complying with requirements could adversely affect the commercialization of product candidates and our ability to receive product or royalty revenues.

Other Regulatory Requirements

After approval, drug products are subject to extensive continuing regulation by the FDA, which include company obligations to manufacture products in accordance with Good Manufacturing Practice, or GMP, maintain and provide to the FDA updated safety and efficacy information, report adverse experiences with the product, keep certain records and submit periodic reports, obtain FDA approval of certain manufacturing or labeling changes, and comply with FDA promotion and advertising requirements and restrictions. Failure to meet these obligations can result in various adverse consequences, both voluntary and FDA-imposed, including product recalls, withdrawal of approval, restrictions on marketing, and the imposition of civil fines and criminal penalties against the NDA holder. In addition, later discovery of previously unknown safety or efficacy issues may result in restrictions on the product, manufacturer or NDA holder.

Manufacturers of products are required to comply with applicable FDA manufacturing requirements contained in the FDA's GMP regulations. GMP regulations require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation. The manufacturing facilities for our products must meet GMP requirements to the satisfaction of the FDA pursuant to a pre-approval inspection before it can use them to manufacture its products. Ours and any third-party manufacturers are also subject to periodic inspections of facilities by the FDA and other authorities, including procedures and operations used in the testing and manufacture of its products to assess its compliance with applicable regulations.

With respect to post-market product advertising and promotion, the FDA imposes a number of complex regulations on entities that advertise and promote pharmaceuticals, which include, among others, standards for direct-to-consumer advertising, promoting drugs for uses or in patient populations that are not described in the drug's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities, and promotional activities involving the internet. Failure to comply with FDA requirements can have negative consequences, including adverse publicity, enforcement letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Adverse event reporting and submission of periodic reports is required following FDA approval of an NDA. The FDA also may require post-marketing testing, known as Phase 4 testing, risk minimization action plans and surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product.

Outside the United States, our ability to market a product is contingent upon receiving marketing authorization from the appropriate regulatory authorities. The requirements governing marketing authorization, pricing and reimbursement vary widely from jurisdiction to jurisdiction. At present, foreign marketing authorizations are applied for at a national level, although within the European Union registration procedures are available to companies wishing to market a product in more than one European Union member state.

We are also subject to various environmental, health and safety regulations including those governing laboratory procedures and the handling, use, storage, treatment, and disposal of hazardous materials. From time to time, and in the future, our operations may involve the use of hazardous materials.

Intellectual Property

We are able to protect our technology from unauthorized use by third parties only to the extent that it is covered by valid and enforceable patents or is effectively maintained as a trade secret or is protected by confidentiality agreements. Accordingly, patents or other proprietary rights are an essential element of our business.

Patents extend for varying periods according to the date of patent filing or grant and the legal term of patents in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends on the type of patent, the scope of its coverage and the availability of legal remedies in the country.

While trade secret protection is an essential element of our business and we take security measures to protect its proprietary information and trade secrets, we cannot give assurance that its unpatented proprietary technology will afford it significant commercial protection. We seek to protect its trade secrets by entering into confidentiality agreements with third parties, employees and consultants. Our employees and consultants also sign agreements requiring that they assign to the Company their interests in intellectual property arising from their work for us. All employees sign an agreement not to engage in any conflicting employment or activity during their employment and not to disclose or misuse confidential information. However, it is possible that these agreements may be breached or invalidated, and if so, there may not be an adequate corrective remedy available. Accordingly, we cannot ensure that employees, consultants or third parties will not breach the confidentiality provisions in its contracts, infringe or misappropriate its trade secrets and other proprietary rights or that measures we take to protect our proprietary rights will be adequate.

In the future, third parties may file claims asserting that our technologies or products infringe on their intellectual property. We cannot predict whether third parties will assert such claims against us or against the licensors of technology licensed to us, or whether those claims will harm our business. If we are forced to defend ourselves against such claims, whether they are with or without merit and whether they are resolved in favor of, or against, our licensors or ourselves, we may face costly litigation and the diversion of our management's attention and resources. As a result of such disputes, we may have to develop costly non-infringing technology or enter into licensing agreements. These agreements, if necessary, may be unavailable on terms acceptable to us, or at all.

Employees

We have 12 employees as of December 31, 2015. We also utilize outside consultants as needed to support our operations.

Item 1A. Risk Factors

Risks Related to Our Product Candidates and Operations

We are largely dependent on the success of our lead product candidates, ESS, Eltoprazine, MANF, LymPro and MSPrecise, and we may not be able to successfully commercialize these products.

We have incurred and will continue to incur significant costs relating to the development of our lead product candidates, LymPro, MSPrecise, ESS, Eltoprazine and MANF. We have not obtained approval to commercialize LymPro, MSPrecise, ESS, Eltoprazine and MANF in any jurisdiction and we may never be able to obtain approval or, if approvals are obtained, to commercialize LymPro, MSPrecise, ESS, Eltoprazine and MANF successfully.

If we fail to successfully commercialize our products, we may be unable to generate sufficient revenue to sustain and grow our business, and our business, financial condition and results of operations will be adversely affected.

If we fail to obtain U.S. regulatory approval of LymPro, MSPrecise, ESS, Eltoprazine, MANF or any of our other current or future product candidates, we will be unable to commercialize these potential products in the United States.

The development, testing, manufacturing and marketing of our product candidates are subject to extensive regulation by governmental authorities in the United States. In particular, the process of obtaining FDA approval is costly and time consuming, and the time required for such approval is uncertain. Our product candidates must undergo rigorous preclinical and clinical testing and an extensive regulatory approval process mandated by the FDA. Such regulatory review includes the determination of manufacturing capability and product performance. Generally, only a small percentage of pharmaceutical products are ultimately approved for commercial sale.

We can give no assurance that our current or future product candidates will be approved by the FDA or any other governmental body. In addition, there can be no assurance that all necessary approvals will be granted for future product candidates or that FDA review or actions will not involve delays caused by requests for additional information or testing that could adversely affect the time to market for and sale of our product candidates. Further failure to comply with applicable regulatory requirements can, among other things, result in the suspension of regulatory approval as well as possible civil and criminal sanctions.

Our proprietary rights may not adequately protect our intellectual property and product candidates and if we cannot obtain adequate protection of our intellectual property and product candidates, we may not be able to successfully market our product candidates.

Our commercial success will depend in part on obtaining and maintaining intellectual property protection for our technologies and product candidates. We will only be able to protect our technologies and product candidates from unauthorized use by third parties to the extent that valid and enforceable patents cover them, or those other market exclusionary rights apply.

While we have issued enforceable patents covering our product candidates, the patent positions of life sciences companies, like ours, can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States. The general patent environment outside the United States also involves significant uncertainty. Accordingly, we cannot predict the breadth of claims that may be allowed or that the scope of these patent rights would provide a sufficient degree of future protection that would permit us to gain or keep our competitive advantage with respect to these products and technology.

Our issued patents may be subject to challenge and possibly invalidated by third parties. Changes in either the patent laws or in the interpretations of patent laws in the United States or other countries may diminish the market exclusionary ability of our intellectual property.

In addition, others may independently develop similar or alternative compounds and technologies that may be outside the scope of our intellectual property. Should third parties obtain patent rights to similar compounds or radiolabeling technology, this may have an adverse effect on our business.

To the extent that consultants or key employees apply technological information independently developed by them or by others to our product candidates, disputes may arise as to the proprietary rights of the information, which may not be resolved in our favor. Consultants and key employees that work with our confidential and proprietary technologies are required to assign all intellectual property rights in their discoveries to us. However, these consultants or key employees may terminate their relationship with us, and we cannot preclude them indefinitely from dealing with our competitors. If our trade secrets become known to competitors with greater experience and financial resources, the competitors may copy or use our trade secrets and other proprietary information in the advancement of their products, methods or technologies. If we were to prosecute a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time consuming and the outcome would be unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets than courts in the United States. Moreover, if our competitors independently develop equivalent knowledge, we would lack any contractual claim to this information, and our business could be harmed.

If our product candidates, including ESS, Eltoprazine, MANF, LymPro and MSPrecise, do not gain market acceptance among physicians, patients and the medical community, we will be unable to generate significant revenue, if any.

The products that we develop may not achieve market acceptance among physicians, patients, third-party payers and others in the medical community. If we, or any of our partners, receive the regulatory approvals necessary for commercialization, the degree of market acceptance will depend upon a number of factors, including:

- limited indications of regulatory approvals;
- the establishment and demonstration in the medical community of the clinical efficacy and safety of our product candidates and their potential advantages over existing diagnostic compounds;
- the prevalence and severity of any side effects;
- our ability to offer our product candidates at an acceptable price;
- the relative convenience and ease of administration of our products;
- the strength of marketing and distribution support; and
- sufficient third-party coverage or reimbursement.

The market may not accept LymPro, MSPrecise, ESS, Eltoprazine or MANF based products based on any number of the above factors. The market may choose to continue utilizing the existing products for any number of reasons, including familiarity with or pricing of these existing products. The failure of any of our product candidates to gain market acceptance could impair our ability to generate revenue, which could have a material adverse effect on our future business and prevent us from obtaining the necessary partnerships to further our business strategy.

Risks Associated with Our Financial Condition

Our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern, which may hinder our ability to obtain future financing.

Our consolidated financial statements as of December 31, 2015 were prepared under the assumption that we will continue as a going concern for the next twelve months. Our independent registered public accounting firm has issued a report that included an explanatory paragraph referring to our projected future losses along with recurring losses from operations and expressing substantial doubt in our ability to continue as a going concern without additional capital becoming available. Our ability to continue as a going concern is dependent upon our ability to obtain additional equity or debt financing, attain further operating efficiencies, reduce expenditures, and, ultimately, to generate revenue. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We are at an early stage of development as a company and currently have no source of revenue and may never become profitable.

We are a development stage biopharmaceutical company. Currently, we have no products approved for commercial sale and, to date, we have not generated any revenue. Our ability to generate revenue depends heavily on:

- demonstration in future clinical trials that our product candidates are safe and effective;
- our ability to seek and obtain regulatory approvals, including with respect to the indications we are seeking;
- successful manufacture and commercialization of our product candidates; and
- market acceptance of our products.

All of our existing product candidates are in various stages of development and will require extensive additional preclinical and clinical evaluation, regulatory review and approval, significant marketing efforts and substantial investment before they could provide us with any revenue. As a result, if we do not successfully develop, achieve regulatory approval and commercialize LymPro, MSPrecise, ESS, Eltoprazine and/or MANF, we will be unable to generate any revenue for many years, if at all. We do not anticipate that we will generate revenue for several years, at the earliest, or that we will achieve profitability for at least several years after generating material revenue, if at all. If we are unable to generate revenue, we will not become profitable, and we may be unable to continue our operations.

We do not have any products that are approved for commercial sale and therefore do not expect to generate any revenues from product sales in the foreseeable future, if ever.

We currently do not have any products that are approved for commercial sale. To date, we have funded our operations primarily from grants and sales of our securities. We have not received, and do not expect to receive for at least the next several years any revenues from the commercialization of our product candidates. To obtain revenues from sales of our product candidates, we must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, manufacturing and marketing drugs with commercial potential. We may never succeed in these activities, and may not generate sufficient revenues to continue our business operations or achieve profitability.

We have incurred significant losses since inception and anticipate that we will incur continued losses for the foreseeable future.

As of December 31, 2015 we had an accumulated deficit of approximately $92.2 million. We have incurred significant losses since inception. We expect to incur significant and increasing operating losses for the next several years as we expand our research and development, advance product candidates into clinical development, complete clinical trials, seek regulatory approval and, if we receive FDA approval, commercialize our products. Because of the numerous risks and uncertainties associated with product development efforts, we are unable to predict the extent of any future losses or when we will become profitable, if at all. If we are unable to achieve and then maintain profitability, the market value of our common stock will likely decline.

We will need to raise substantial additional capital to fund our operations, and our failure to obtain funding when needed, may force us to delay, reduce or eliminate certain product development programs.

We expect to continue to spend substantial amounts to:

- continue development of our product candidates;
- finance our general and administrative expenses;
- license or acquire additional technologies;
- manufacture product for clinical trials;
- launch and commercialize our product candidates, if any such product candidates receive regulatory approval; and
- develop and implement commercial manufacturing, sales, and marketing and distribution capabilities.

We will be required to raise additional capital to complete the development and commercialization of our product candidates and to continue to fund operations at the current cash expenditure levels. Our future funding requirements will depend on many factors, including, but not limited to:

- the rate of progress and cost of our clinical trials and other development activities;
- any future decisions we may make about the scope and prioritization of the programs we pursue;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the costs of manufacturing product;
- the costs and timing of regulatory approval;
- the costs of establishing sales, marketing and distribution capabilities;
- the effect of competing technological and market developments;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish; and
- general market conditions for offerings from biopharmaceutical companies.

Worldwide economic conditions and the international equity and credit markets have recently significantly deteriorated and may remain depressed for the foreseeable future. These developments could make it more difficult for us to obtain additional equity or credit financing, when needed.

We cannot be certain that funding will be available on acceptable terms, or at all. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience significant dilution. Any debt financing, if available, may involve restrictive covenants that impact our ability to conduct our business. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue the development and/or commercialization of one or more of our product candidates. We also may be required to:

- seek collaborators for our product candidates at an earlier stage than otherwise would be desirable and on terms that are less favorable than might otherwise be available; and/or
- relinquish license or otherwise dispose of rights to technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves on unfavorable terms. If we are unable to fund our operations, we may be forced to discontinue and wind down our business.

We may require additional financing to sustain our operations and without it we may not be able to continue operations.

At December 31, 2015, we had a working capital deficit of $15.4 million. We have never had positive operating cash flow. For the year ended December 31, 2015, we incurred an operating cash flow deficit of $16.0 million. We do not currently have sufficient financial resources to fund our operations or those of our subsidiaries. Therefore, we need additional funds to continue these operations.

If an event of default occurs under the terms of our 12% Senior Secured Convertible Promissory Notes, the holders of the Notes could foreclose on our assets.

We have entered into a Security Agreement and Patent and Trademark Security Agreement with the holders of the Company's 12% Senior Secured Convertible Promissory Notes granting them a first priority security interest in all of our goods, inventory, contractual rights and general intangibles, receivables, documents, instruments, chattel paper, intellectual property, and the shares of our wholly owned subsidiaries. Upon the occurrence of an event of default, as such term is described in the applicable security documents, the investors have the right to take possession of the collateral, to operate our business using the collateral, and have the right to assign, sell, lease or otherwise dispose of and deliver all or any part of the collateral, at public or private sale or otherwise to satisfy our obligations under these agreements. If the investors were to foreclose on our assets, investors may lose all or substantially all of their investment.

Risks Associated with Management

If we are unable to hire and retain key personnel, we may not be able to implement our business plan.

Due to the specified nature of our business, having certain key personnel is essential to the development and marketing of the products we plan to sell and thus to the entire business itself. Consequently, the loss of any of those individuals may have a substantial effect on our future success or failure. We may have to recruit qualified personnel with competitive compensation packages, equity participation, and other benefits that may affect the working capital available for our operations. Management may have to seek to obtain outside independent professionals to assist them in assessing the merits and risks of any business proposals as well as assisting in the development and operation of many company projects. No assurance can be given that we will be able to obtain such needed assistance on terms acceptable to us. Our failure to attract additional qualified employees or to retain the services of key personnel could have a material adverse effect on our operating results and financial condition.

Risks Related to Our Common Stock

Our stock price may be volatile.

The stock market, particularly in recent years, has experienced significant volatility particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks. The volatility of pharmaceutical, biotechnology and other life sciences company stocks often does not relate to the operating performance of the companies represented by the stock. Factors that could cause this volatility in the market price of our common stock include:

- results from and any delays in our clinical trials;
- failure or delays in entering additional product candidates into clinical trials;
- failure or discontinuation of any of our research programs;
- research publications that are unfavorable;
- delays in establishing new strategic relationships;
- delays in the development or commercialization of our potential products;
- market conditions in the pharmaceutical and biotechnology sectors and issuance of new or changed securities analysts' reports or recommendations;
- actual and anticipated fluctuations in our financial and operating results;
- developments or disputes concerning our intellectual property or other proprietary rights;
- introduction of technological innovations or new commercial products by us or our competitors;
- issues in manufacturing our potential products;
- market acceptance of our potential products;
- third-party healthcare reimbursement policies;
- FDA or other domestic or foreign regulatory actions affecting us or our industry;
- litigation or public concern about the safety of our product candidates; and
- additions or departures of key personnel.

These and other external factors may cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert the time and attention of our management.

We have not and do not anticipate paying any dividends on our common stock.

We have paid no dividends on our common stock to date and it is not anticipated that any dividends will be paid to holders of our common stock in the foreseeable future. While our future dividend policy will be based on the operating results and capital needs of the business, it is currently anticipated that any earnings will be retained to finance our future expansion and for the implementation of our business plan. As an investor, you should take note of the fact that a lack of a dividend can further affect the market value of our stock, and could significantly affect the value of any investment in our Company.

If we fail to establish and maintain an effective system of internal control, we may not be able to report our financial results accurately or to prevent fraud. Any inability to report and file our financial results accurately and timely could harm our reputation and adversely impact the trading price of our common stock.

Effective internal control is necessary for us to provide reliable financial reports and prevent fraud. We have not performed an in-depth analysis to determine if historical un-discovered failures of internal controls exist, and may in the future discover areas of our internal control that need improvement. If we cannot provide reliable financial reports or prevent fraud, we may not be able to manage our business as effectively as we would if an effective control environment existed, and our business and reputation with investors may be harmed. As a result, our small size and any current internal control deficiencies may adversely affect our financial condition, results of operation and access to capital.

Our common stock is currently deemed a "penny stock," which makes it more difficult for our investors to sell their shares.

Our common stock is subject to the "penny stock" rules adopted under Section 15(g) of the Exchange Act. The penny stock rules generally apply to companies whose common stock is not listed on The Nasdaq Stock Market or other national securities exchange and trades at less than $5.00 per share, other than companies that have had average revenue of at least $6,000,000 for the last three years or that have tangible net worth of at least $5,000,000 ($2,000,000 if the company has been operating for three or more years). These rules require, among other things, that brokers who trade penny stock to persons other than "established customers" complete certain documentation, make suitability inquiries of investors and provide investors with certain information concerning trading in the security, including a risk disclosure document and quote information under certain circumstances. Many brokers have decided not to trade penny stocks because of the requirements of the penny stock rules and, as a result, the number of broker-dealers willing to act as market makers in such securities is limited. If we remain subject to the penny stock rules for any significant period, it could have an adverse effect on the market, if any, for our securities. If our securities are subject to the penny stock rules, investors will find it more difficult to dispose of our securities.

Offers or availability for sale of a substantial number of shares of our common stock may cause the price of our common stock to decline.

If our stockholders sell substantial amounts of our common stock in the public market upon the expiration of any statutory holding period, under Rule 144, or issued upon the exercise of outstanding options or warrants, it could create a circumstance commonly referred to as an "overhang" and in anticipation of which the market price of our common stock could fall. The existence of an overhang, whether or not sales have occurred or are occurring, also could make more difficult our ability to raise additional financing through the sale of equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate.

Our certificate of incorporation allows for our board to create new series of preferred stock without further approval by our stockholders, which could adversely affect the rights of the holders of our common stock.

Our board of directors has the authority to fix and determine the relative rights and preferences of preferred stock and has designated 250,000 preferred shares as Series A Convertible Preferred Stock, 3,000,000 as Series B Convertible Preferred Stock, 750,000 as Series C Convertible Preferred Stock, 1,300 as Series D 8% Convertible Preferred Stock, 13,335 as Series E 12% Convertible Preferred Stock, 10,000 as Series G Convertible Preferred Stock, and, 25,000 as Series H 12% Convertible Preferred Stock. Our board of directors also has the authority to issue additional shares of our preferred stock without further stockholder approval. As a result, our board of directors could authorize the issuance of a series of preferred stock that would grant to holders the preferred right to our assets upon liquidation, the right to receive dividend payments before dividends are distributed to the holders of common stock and the right to the redemption of the shares, together with a premium, prior to the redemption of our common stock. In addition, our board of directors could authorize the issuance of a series of preferred stock that has greater voting power than our common stock or that is convertible into our common stock, which could decrease the relative voting power of our common stock or result in dilution to our existing stockholders.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

The Company leases its main office facility and laboratory space in two separate locations in San Francisco, California. Office space in San Francisco is leased through November 2016 and provides for a monthly rental payment of approximately $12,000, plus operating expenses, subject to annual adjustment, of approximately $9,000 per month. The other facility lease is on a month-to-month basis. Total rent expense for 2015 was approximately $407,000.

Item 3. Legal Proceedings.

The Company is not currently involved in any litigation that it believes could have a material adverse effect on its financial condition or results of operations.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

The Company's common stock is currently quoted on the OTCQX under the symbol "AMBS" ("OTCQX") and was previously quoted on the OTCQB. The following table sets forth, for the fiscal quarters indicated, the high and low bid quotation prices per share of our common stock. Such quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions.

The quotations may be rounded for presentation.

Period	High	Low
First Quarter 2015	$ 14.77	$ 7.50
Second Quarter 2015	$ 10.42	$ 5.50
Third Quarter 2015	$ 6.55	$ 1.20
Fourth Quarter 2015	$ 1.39	$ 0.28

Period	High	Low
First Quarter 2014	$ 18.45	$ 9.69
Second Quarter 2014	$ 18.13	$ 10.05
Third Quarter 2014	$ 29.02	$ 12.90
Fourth Quarter 2014	$ 13.95	$ 10.89

As of May 11, 2016, we had 67,507,073 shares of common stock outstanding held by 186 shareholders of record.

Transfer Agent

The Company's registrar and transfer agent is VStock Transfer, LLC, 18 Lafayette Place, Woodmere, NY 11598.

Dividend Policy

We have not previously paid any cash dividends on our Common Stock and do not anticipate or contemplate paying dividends on our Common Stock in the foreseeable future. We currently intend to utilize all available funds to develop our business. We can give no assurances that we will ever have excess funds available to pay dividends.

Recent Sales of Unregistered Securities

There are no sales of unregistered securities that have not been previously reported.

Equity Compensation Plan Information

The Company's Board of Directors and its stockholders approved the 2008 Stock Plan as amended (the "2008 Plan"). Under the 2008 Plan, the Board of Directors may grant up to 307,466 shares of incentive stock options, nonqualified stock options, or stock awards to eligible persons, including employees, nonemployees, members of the Board, consultants, and other independent advisors who provide services to the Company. In general, options are granted with an exercise price equal to the fair value of the underlying common stock on the date of the grant. Options generally have a contractual life of 10 years and vest over periods ranging from being fully vested as of the grant dates to four years.

On August 6, 2014, the Board of Directors adopted the 2014 Stock Plan (the "2014 Plan"), which was approved by the Company's stockholder at the Company's Annual Meeting on September 22, 2014. Under the 2014 Plan, the Company may grant up to 1,025,868 common shares in the form of incentive stock options, nonqualified stock options or stock awards to eligible persons, including employees, nonemployees, members of the Board of Directors, consultants, and other independent advisors who provide services to the Company. In general, options are granted with an exercise price equal to the fair value of the underlying common stock on the date of the grant. Options granted typically have a contractual life of 10 years and vest over periods ranging from being fully vested as of the grant date to four years.

In July 2012, our Board of Directors adopted the Management, Employee, Advisor and Director Preferred Stock Option Plan - 2012 Series B Convertible Preferred Stock Plan (the "July 2012 Pan"). Under the July 2012 Plan, the Company may grant up to 3,000,000 common shares. The purposes of the July 2012 Pan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to management, employees, advisors and directors and to promote the success of our business. Certain current and former management, employees, advisors and directors were awarded a total of 1,248,000 options to purchase Series B Preferred shares on July 15, 2012, and an additional 1,200,000 options on November 4, 2012.

On October 22, 2015, our Board of Directors adopted the 2015 Consultants Plan. The purpose of the Plan is intended as an incentive for consultants and advisors to the Company, within the meaning of Section 424(f) of the United States Internal Revenue Code of 1986, as amended (the "Code"), whose services are considered valuable, to encourage the sense of proprietorship and to stimulate the active interest of such persons in the development and financial success of the Company and its Subsidiaries. The Company may issue up to 1,000,000 shares of restricted common stock to consultants.

The following table shows information with respect these plans as of the fiscal year ended December 31, 2015:

Equity Compensation Plan Information (Common Stock)

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average Exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a) (c)
Equity compensation plans approved by security holders	226,510	$ 12.00	971,000
Equity compensation plans not approved by security holders	-	-	-
Total	226,510	$ 12.00	971,000

Equity Compensation Plan Information (Preferred Stock)

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average Exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	-	-	-
Equity compensation plans not approved by security holders	2,487,500	$ 0.61	512,500
Total	2,487,500	$ 0.61	512,500

Item 6. Selected Financial Data

Not applicable.

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

Forward-Looking Statements

This Annual Report on Form 10-K (including the section regarding Management's Discussion and Analysis or Plan of Operation) contains forward-looking statements regarding our business, financial condition, results of operations and prospects. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements, but are not deemed to represent an all-inclusive means of identifying forward-looking statements as denoted in this Annual Report on Form 10-K. Additionally, statements concerning future matters are forward-looking statements.

Although forward-looking statements in this Annual Report on Form 10-K reflect the good faith judgment of our Management, such statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties and actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include, without limitation, those specifically addressed under the heading "Risks Factors" below, as well as those discussed elsewhere in this Annual Report on Form 10-K. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K.

The following discussion should be read in conjunction with our consolidated financial statements and notes thereto included elsewhere herein.

Overview

We are a biopharmaceutical holding company founded in January 2008. We own, or have exclusive licenses, to various product candidates in the therapeutic and diagnostic sectors of the Life Sciences industry. We are developing a regenerative medicine cell therapy-based autologous skin replacement product called Engineered Skin substitute or ESS in mid-stage clinical development for the treatment of life-threatening severe burns. ESS is expected to reduce the need for traditional skin grafts by speeding the time to wound closure of large burns and reducing infection risks. Our wholly-owned subsidiary Cutanogen Corp. is developing ESS.

We are also developing a mid-stage clinical stage pharmaceutical drug candidate, Eltoprazine, as a symptomatic treatment for Parkinson's disease levodopa-induced dyskinesias ("PD-LID"), Attention Hyperactivity Disorder ("ADHD"), and Alzheimer's disease-related aggression. In addition, we are in pre-clinical development of a biologic protein product candidate, Mesencephalic Astrocyte-derived Neurotrophic Factor ("MANF") as a vision loss treatment for retinitis pigmentosa ("RP") and retinal artery occlusion ("RAO"). We also own a wholly-owned diagnostics subsidiary, Amarantus Diagnostics, that is developing diagnostic candidates for multiple sclerosis ("MSprecise®) and Alzheimer's disease ("LymPro Test®").

We are evaluating strategic options to fund our ongoing business operations and may consider the sale and/or partnerships of some or all of our assets and/or subsidiaries.

Principal Products in Development

Our focus is currently in the areas of therapeutics, diagnostics and drug discovery. During 2015, we had the following products at various stages of development:

Area and candidate	Application	Status
Therapeutics:		
ESS	Treatment for Severe Burns	Preparations underway for initiation of Phase 2 clinical study in the treatment of severe burns
Eltoprazine	Treatment of Parkinson's disease levodopa induced dyskinesis (PD_LID)	Phase 2 clinical study on pause
MANF	Retinitis pigmentosa (RP)	Pre-clinical
Drug discovery:		
PhenoGuard	Drug discovery platform for discovery of other neurrotrophic factors	88 cell lines available
Diagnostics:		
LymPro Test ®	Diagnostic blood test for Alzheimer's disease	Available for Investigational Use Only in pharmaceutical therapeutic clinical development programs
MSPrecise ®	Diagnostic test for Multiple Sclerosis	Diagnostics:

Critical Accounting Policies

Principles of Consolidation - The Consolidated Financial Statements include the accounts of Amarantus Bioscience Holdings, Inc. and its subsidiaries. All significant intercompany accounts and transactions have been eliminated.

Use of Estimates - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of expenses during the reporting period. Significant estimates include the fair value of derivatives, the fair value of stock-based compensation and warrants, the carrying value of intangible assets (patents and licenses), valuation allowance against deferred tax assets, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Certain Significant Risks and Uncertainties - We participate in a global, dynamic, and highly competitive industry and believes that changes in any of the following areas could have a material adverse effect on the Company's future financial position, results of operations, or cash flows: ability to obtain future financing; advances and trends in new technologies and industry standards; regulatory approval and market acceptance of the Company's products; development of the necessary manufacturing capabilities and the Company's ability to obtain adequate resources of necessary materials; development of sales channels; certain strategic relationships; litigation or claims against the Company based on intellectual property, patent, product, regulatory, or other factors; and the Company's ability to attract and retain employees and other resources necessary to support its growth.

Accounting for Business Combinations - Business combinations are accounted for under the acquisition method of accounting. This method requires the recording of acquired assets, including separately identifiable intangible assets, and assumed liabilities at their acquisition date fair values. The method records any excess purchase price over the fair value of acquired net assets as goodwill. The determination of the fair value of assets acquired, liabilities assumed involves assessments of factors such as the expected future cash flows associated with individual assets and liabilities and appropriate discount rates at the closing date of the acquisition. When necessary, external advisors are consulted to help determine fair value. For non-observable market values, fair values are determined using acceptable valuation principles (e.g., multiple excess earnings, relief from royalty and cost methods, discounted cash flows).

Contingent consideration assumed in a business combination is remeasured at fair value each reporting period and any change in the fair value from either the passage of time or events occurring after the acquisition date, is recorded in results from operations.

The results of operations are included from the acquisition date in the financial statements for all businesses acquired.

Goodwill and Other Intangible Assets - Goodwill is the excess of purchase price over the fair value of identified net assets of businesses acquired. Our intangible assets with an indefinite life are related to in-process research and development ("IPR&D") programs acquired, as we expect future research and development on these programs to provide us with substantial benefit for a period that extends beyond the foreseeable horizon. Intangible assets with indefinite useful lives are measured at their respective fair values as of the acquisition date. We do not amortize goodwill and intangible assets with indefinite useful lives. Intangible assets related to IPR&D projects are considered to be indefinite lived until the completion or abandonment of the associated R&D efforts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite lived and would then be amortized based on their respective estimated useful lives at that point in time.

We estimate the fair value of the reporting unit using a market approach in combination with a discounted operating cash flow approach. Impairment of goodwill is measured as the excess of the carrying amount of goodwill over the fair values of recognized and unrecognized assets and liabilities of the reporting unit. An adjustment to goodwill will be recorded for any goodwill that is determined to be impaired. We test goodwill for impairment at least annually in conjunction with the preparation of its annual business plan, or more frequently if events or circumstances indicate it might be impaired. ASU 2011-28 modifies Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. In determining whether it is more likely than not that goodwill impairment exists, an entity should consider whether there are any adverse qualitative factors indicating that impairment may exist. We performed Step 2 of the goodwill impairment test and determined that no impairment existed as of December 31, 2015.

Impairment of Long-Lived Assets - The Company monitors the carrying value of long-lived assets for potential impairment and tests the recoverability of such assets whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. If a change in circumstance occurs, the Company performs a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. If cash flows cannot be separately and independently identified for a single asset, the Company will determine whether impairment has occurred for the group of assets for which the Company can identify the projected cash flows. If the carrying values are in excess of discounted expected future cash flows, the Company measures any impairment by comparing the fair value of the asset or asset group to its carrying value. Due to the significant decline in the Company's stock price, the Company determined it was necessary to test its intangible assets for impairment during the fourth quarter of 2015. During the year ended December 31, 2015, there was no impairment of long-lived assets.

Research and Development Expenditures - Research and development expenses consist of personnel costs, including salaries, benefits and stock-based compensation, materials and supplies, licenses and fees, and overhead allocations consisting of various administrative and facilities related costs. Research and development activities consist primarily of three main categories: research, clinical development, and biotechnology development. Research costs typically consist of preclinical and toxicology costs. Clinical development costs include costs for clinical studies and trials. Biotechnology development costs consist of costs incurred for product formulation and analysis. Research and development costs are charged to expense when incurred.

Fair Value of Financial Instruments - Accounting standards have been issued which define fair value, establishes a market-based framework or hierarchy for measuring fair value and expands disclosures about fair value measurements. The standard is applicable whenever another accounting pronouncement requires or permits assets and liabilities to be measured at fair value. The standard does not expand or require any new fair value measures; however its application may change current practice.

Fair value is defined under the standard as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. The standard also establishes a three-level hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value:

- *Level 1* - inputs to the valuation methodology are quoted prices (unadjusted) for an identical asset or liability in an active market
- *Level 2* - inputs to the valuation methodology include quoted prices for a similar asset or liability in an active market or model-derived valuations in which all significant inputs are observable for substantially the full term of the asset or liability.
- *Level 3* - inputs to the valuation methodology are unobservable and significant to the fair value measurement of the asset or liability

Stock-Based Compensation - Stock-based compensation is measured at the grant date based on the fair value of the award. The fair value of the award that is ultimately expected to vest is recognized as expense on a straight-line basis over the requisite service period, which is generally the vesting period. The expense recognized for the portion of the award that is expected to vest has been reduced by an estimated forfeiture rate. The forfeiture rate is determined at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Grant-date fair value is determined using the Black-Scholes option pricing model, which requires the use of the following assumptions:

Expected Term - The expected term represents the period that options are expected to be outstanding based on the simplified method, which is the half-life from vesting to the end of its contractual term.

Expected Volatility - Stock price volatility is computed over expected terms based on the historical common stock trading price for our stock.

Risk-Free Interest Rate - The risk-free interest rate is estimated based upon the implied yield available on U.S. Treasury zero-coupon issues with an equivalent remaining term.

Expected Dividend - Cash dividends have never been declared or paid on common shares and there are no plans to do so in the foreseeable future such that the expected dividend yield is assumed to be zero.

Forfeiture Rate - The forfeiture rate is based on historical data and managements estimates of failure rate to achieve vesting conditions. Forfeiture rates are adjusted as actual forfeitures differ from managements estimates for the awards that actually vest in the period of the change in estimate.

The fair value of stock options granted to nonemployees is recognized as stock-based compensation expense over the period in which the related services are received.

Preferred Stock - Preferred shares subject to mandatory redemption are classified as liability instruments and are measured at fair value. Conditionally redeemable preferred shares, which include preferred shares that feature redemption rights that are either within the control of the holder or subject to redemption upon the occurrence of uncertain events not solely within the Company's control, are classified as temporary equity until such time as the conditions are removed or lapse.

Convertible Financial Instruments - We bifurcate conversion options from their host instruments and account for them as free standing derivative financial instruments if certain criteria are met. The criteria include circumstances in which (a) the economic characteristics and risks of the embedded derivative instrument are not clearly and closely related to the economic characteristics and risks of the host contract, (b) the hybrid instrument that embodies both the embedded derivative instrument and the host contract is not re-measured at fair value under otherwise applicable generally accepted accounting principles with changes in fair value reported in earnings as they occur and (c) a separate instrument with the same terms as the embedded derivative instrument would be considered a derivative instrument. An exception to this rule is when the host instrument is deemed to be conventional, as that term is described under applicable GAAP.

When it has been determined that the embedded conversion options should not be bifurcated from their host instruments, discounts are recorded for the intrinsic value of conversion options embedded in debt instruments based upon the differences between the fair value of the underlying common stock at the commitment date of the debt transaction and the effective conversion price embedded in the debt. Deemed dividends are also recorded, when present, for the intrinsic value of conversion options embedded in preferred shares based upon the differences between the fair value of the underlying common stock at the commitment date of the transaction and the effective conversion price embedded in the preferred shares.

Common Stock Purchase Warrants and Derivative Financial Instruments - Common stock purchase warrants and other derivative financial instruments are classified as equity if the contracts (1) require physical settlement or net-share settlement or (2) give the issuer a choice of net-cash settlement or settlement in its own shares (physical settlement or net-share settlement). Contracts which (1) require net-cash settlement (including a requirement to net cash settle the contract if an event occurs and if that event is outside the control of the Company), (2) give the counterparty a choice of net-cash settlement or settlement in shares (physical settlement or net-share settlement), or (3) that contain reset provisions that do not qualify for the scope exception, are classified as assets or liabilities. Classification of its common stock purchase warrants and other derivatives is assessed at each reporting date to determine whether a change in classification between assets and liabilities is required.

Debt Discounts - Debt discounts under these arrangements are amortized to interest expense using the interest method over the earlier of the term of the related debt or their earliest date of redemption.

Income Taxes - Income taxes are accounted for using the liability method whereby deferred tax asset and liability account balances are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is provided, if necessary, to reduce deferred tax assets to their estimated realizable value.

All available positive and negative evidence is considered, including operating results, ongoing tax planning, and forecasts of future taxable income on a jurisdiction-by-jurisdiction basis is evaluated regarding the ability to recover deferred income tax assets. In the event we determine we will be able to realize any deferred income tax assets in the future in excess of their net recorded amount, we would adjust the valuation allowance which would reduce our provision for income taxes. Conversely, in the event that all or part of net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made.

The effect of uncertain income tax positions is recognized only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Interest and penalties related to uncertain tax positions are recorded in the provision for income tax expense on the consolidated statements of operations.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, "*Revenue from Contracts with Customers*", an updated standard on revenue recognition. ASU No. 2014-09 provides enhancements to the quality and consistency of how revenue is reported by companies while also improving comparability in the financial statements of companies reporting using International Financial Reporting Standards or U.S. GAAP. The main purpose of the new standard is for companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which a company expects to be entitled in exchange for those goods or services. The new standard also will result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively and improve guidance for multiple-element arrangements. In July 2015, the FASB voted to approve a one-year deferral of the effective date of ASU No. 2014-09, which will be effective for the Company in the first quarter of fiscal year 2018 and may be applied on a full retrospective or modified retrospective approach. The Company is evaluating the impact of implementation and transition approach of this standard on its financial statements.

In August 2014, the FASB issued ASU No. 2014-15, " *Presentation of Financial Statements — Going Concern (Subtopic 205-40) — Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern"* , which provides guidance regarding management's responsibility to assess whether substantial doubt exists regarding the ability to continue as a going concern and to provide related footnote disclosures. In connection with preparing financial statements for each annual and interim reporting period, management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). This ASU is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. The Company is evaluating the new guidance and has not determined the impact this standard may have on its financial statements.

ASU 2014-16, *Derivatives and Hedging (Topic 815): Determining Whether the Host Contract in a Hybrid Financial Instrument Issued in the Form of a Share Is More Akin to Debt or to Equity.* The amendments in this ASU are effective for the first annual period ending after December 15, 2015 and interim periods within those years. Early adoption is permitted. The Company is considering the effect of this FASB issuance, if any, on its financial statements. The Company has decided not to early adopt at this time.

ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*. ASU No. 2016-01 requires equity investments to be measured at fair value with changes in fair value recognized in net income; simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments; requires separate presentation of financial assets and financial liabilities by measurement category and form of financial assets on the balance sheet or the accompanying notes to the financial statements and clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. ASU No. 2016-01 is effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company is currently evaluating the impact that ASU No. 2016-01 will have on its financial statements and related disclosures.

ASU No. 2016-02, *Leases (Topic 842)* which supersedes FASB ASC Topic 840, *Leases (Topic 840)* provides principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than twelve months regardless of classification. Leases with a term of twelve months or less will be accounted for similar to existing guidance for operating leases. The standard is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted upon issuance. When adopted, the Company does not expect this guidance to have a material impact on our financial statements.

Results of Operations

Comparison of Years Ended December 31, 2015 and 2014

Net Sales - We did not recognize any revenue in either of the two years ended December 31, 2015 or 2014.

We do not expect to receive any revenues from the commercialization of our product candidates for at least the next several years. To obtain revenues from sales of our product candidates, we must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, manufacturing and marketing drugs with commercial potential.

The following table summarizes our research and development expenses for the years ended December 31, 2015 and 2014:

	2015	2014	$ Change	% Change
Research and development	$ 13,256	$ 13,762	$ (506)	-4%

During the year ended December 31, 2015, our research and development costs consisted primarily of start-up clinical expenses, project supplies, and consultants offset by lower in process research and development costs in 2015. Research and development expense decreased slightly in 2015 as compared to 2014. The Company concluded that there is no further alternative future use associated with the licensed assets and as such they were expenses to the statement of operations as research and development cost of $1.4 million.

The following table summarizes our general and administrative expenses for the years ended December 31, 2015 and 2014:

	2015	2014	$ Change	% Change
General and administrative	$ 11,565	$ 7,592	$ 3,973	52%

General and administrative expenses increased primarily due to increased patent related legal costs, investor and public relations services, other outside services and stock based compensation.

The following table summarizes our other income (expense) for the years ended December 31, 2015 and 2014 (in thousands except per share and per share data):

	2015	2014	Change	% Change
Interest Expense	$ (2,228)	$ (813)	$ (1,415)	174%
Loss on issuance of common stock	-	(260)	260	-100%
Loss on issuance of warrants	-	(3,867)	3,867	-100%
Loss on extinguishment of convertible debt	(1,296)	(1,250)	(46)	4%
Loss on issuance of senior secured convertible promissory notes	(1,645)	-	(1,645)	-100%
Change in fair value of warrants & derivatives liabilities	4,105	317	3,788	1,195%
Change in fair value of share-settled debt	(246)	-	(246)	-100%
Change in fair value of earn-out liability	917	-	917	100%
Other expense	-	(50)	50	-100%
Total other income (expense)	(393)	(5,923)	5,530	-93%
Net loss	(25,214)	(27,277)	2,063	-8%
Dividends declared on preferred stock	(3,595)	(875)	(2,720)	311%
Deemed dividends on convertible preferred stock	(8,249)	-	(8,249)	-100%
Net loss applicable to common stockholders	$ (37,058)	$ (28,152)	$ (8,906)	32%
Net loss per share applicable to common stockholders - basic and diluted	$ (4.17)	$ (5.71)	$ 1.54	-27%
Weighted average shares used in computing basic and diluted loss per share	8,877,924	4,926,338	3,951,586	80%

We incurred total interest expense of $2.2 million for the year ended December 31, 2015 as a result of amortization of senior debt discount and the recognition of stated interest of debt issued.

We incurred a loss on extinguishment of $1.3 million for the year ended December 31, 2015 from the conversion of convertible debt with a bifurcated conversion option.

We incurred a loss on issuance of senior secured convertible notes of $1.6 million as a result of the derivative liability.

We incurred a loss on the issuance of warrants of $3.9 million for the year ended December 31, 2014 as a result of our warrant exchange program in which existing warrant holders could receive new warrants if they exercised existing warrants. The fair value of the new warrants was determined to be greater than the fair value of the exchanged warrants, resulting in a loss on issuance.

The change in the fair value of warrants and derivative liabilities was $4.1 million for the year ended December 31, 2015 as a result of a decline in stock price comparing with the price on the issuance date.

Liquidity and Capital Resources

As of December 31, 2015, the Company had total current assets of $0.8 million consisting of $0.2 million in cash and cash equivalents and $0.6 million in prepaid expenses and other current assets. As of December 31, 2015, the Company had current liabilities in the amount of $16.2 million, consisting of (in thousands):

Accounts payable and accrued liabilities	$ 7,723
Related party liabilities and accrued interest	$ 257
Accrued interest	$ 195
Notes payable	$ 1,000
Senior secured convertible notes payable, net of discount $3.8 million	$ 1,398
Derivative and warrant liability	$ 5,098
Share-settled debt	$ 521

The table below sets forth selected cash flow data for the periods presented (in thousands):

	2015	2014
Net cash used in operating activities	$ (16,014)	$ (11,331)
Net cash used in investing activities	(4,910)	(1,535)
Net cash provided by financing activities	20,886	12,047
Net decrease in cash and cash equivalents	$ (38)	$ (819)

Since inception, the Company has financed cash flow requirements primarily through the issuance of equity or debt.

During 2015, we augmented our ability to raise operating cash through two significant equity agreements:

Lincoln Park Capital

In March 2014, we entered into an agreement with Lincoln Park Capital Fund LLC ("LPC") for an equity financing agreement. LPC is obligated to purchase up to $20.0 million of the Company's common stock from time to time over a 30 month period, in amounts up to $0.5 million per sale as directed by the Company and subject to certain requirements, restrictions and limitations. There are no upper limits to the price LPC may pay to purchase our common stock and the purchase price is based on prevailing market prices of our stock at the time of sales without any fixed discount, We control the timing and amount of any sales to LPC In addition, we may direct LPC to purchase additional amounts as accelerated purchases the closing price of our stock is not below certain threshold price. We filed a registration statement with the SEC covering the shares issuable to LPC. As of December 31, 2015, we had approximately $17.3 million available to us under the agreement.

Through December 31, 2015, the Company has sold an additional 37,445,801 shares of common stock for gross proceeds of $2.8 million under its agreement with LPC.

Series E Convertible Preferred Stock

On November 7, 2014, the Company entered into securities purchase agreements pursuant to which the Company issued 4,500 shares of Series E Convertible Preferred Stock ("Series E Preferred Stock") which has a stated value of $1,000 per share of Series E Preferred Stock and pays quarterly 12% cumulative dividends per annum, as well as a 10% original issue discount (OID). Dividends are payable by the Company in cash or at the Company's option, in shares of common stock if certain conditions are met. Series E shares are entitled to three years of dividends even if converted up to three years following the issuance date. Each share of Series E Preferred Stock is convertible into shares of common stock by dividing the stated value per share by the then effective conversion price. The conversion price for the Series E is initially $12.00 per share (post reverse split), subject to adjustment under certain conditions, but in no event prior to six months from issuance. Series E Preferred stockholders have the right to vote on all matters submitted to the Company's shareholders and the Series E Preferred Stock is entitled to such number of votes on an as-converted basis. Series E Preferred Stock also has a liquidation preference equal to the stated value and accrued and unpaid dividends.

Through December 31, 2015, the Company has sold a total of 5,250 shares of Series E for gross proceeds of $4.7 million.

Series G Convertible Preferred Stock

On April 23, 2015, the Company filed a Certificate of Designations of Preferences, Rights and Limitations of the Series G Preferred Stock ("Certificate of Designation") with the Secretary of State of the State of Nevada. On April 23, 2015, the Company, entered into a Stock Purchase Agreement ("SPA") with Discover Growth Fund, a Cayman Islands exempted mutual fund ("Discover"), pursuant to which the Company sold and issued 1,087 shares of the Company's newly designated Series G Preferred Stock ("Series G Preferred Stock") for gross proceeds of $5.0 million and an 8% original issue discount.

On July 9, 2015, the Company entered into an Amended and Restated Securities Purchase Agreement (the "Series G SPA") with Discover for the sale of 435 shares of the Company's Series G Preferred Stock and an additional 100 shares of Series G Preferred Stock as a fee (collectively, the "Shares") in a registered direct offering (the "Offering"), subject to customary closing conditions for proceeds of $2.0 million. The Series G Preferred Stock had a fixed conversion price of $9.00 and has no specific voting rights.

In September 2015 the Company raised funds from convertible debt and Series H Convertible Preferred to buy out the holders of Series G.

Series H Convertible Preferred

In September 2015, the Company entered into a Securities Purchase Agreement (the "Series H SPA") with an institutional investor for the sale of 3,056 (including 10% OID) shares of the Company's 12% Series H Preferred Stock (the "Series H Preferred Stock") and a warrant to purchase 1,299,000 shares of common stock (the "RD Warrant" and together with the Series H Preferred Stock, the "Securities") in a registered direct offering (the "RD Offering"), subject to customary closing conditions. The gross proceeds to the Company from the RD Offering were $2.4 million, net of $0.3 million of legal fees. Each share of Series H Preferred Stock has a stated value of $1,000 and is convertible into shares of common stock at an initial conversion price of the lower of (i) $2.50, subject to adjustment and (ii) 75%, subject to adjustment, of the lowest volume weighted average price, or VWAP, during the fifteen (15) Trading Days immediately prior to the date a conversion notice is sent to the Company by a holder, at any time at the option of the holder. The proceeds of the raise was used to buyout the holders of the Series G. A minimal amount was remaining and was included as a dividend.

The proceeds received by the Company through sales of common stock to LPC and sales of Series E convertible preferred stock were used for product development, commercialization, strategic acquisitions, and general corporate purposes.

In addition to the Preferred securities issued the Company also issued notes payable and convertible notes:

Demand Promissory Note

On February 23, 2015, the Company entered into a Securities Purchase Agreement with Dominion Capital pursuant to which the Company issued a 12% Promissory Note (the "February Note") in the principal amount of $2.5 million due and payable on December 23, 2015 in cash or stock or a combination at the Company's option. At any time upon ten (10) days written notice to Dominion Capital, the Company may prepay any portion of the principal amount of the February Note and any accrued and unpaid interest at an amount equal to 110% of the then outstanding principal amount of the February Note and guaranteed interest, 10% of which may be paid in cash or, at the Company's option, in common stock or a combination thereof.

The February Note contains certain customary Events of Default (including, but not limited to, default in payment of principal or interest thereunder, breaches of covenants, agreements, representations or warranties thereunder, the occurrence of an event of default under certain material contracts of the Company, including the transaction documents relating to the Note transaction, changes in control of the Company and the entering or filing of certain monetary judgments against the Company). Upon the occurrence of any such Event of Default the outstanding principal amount of the February Note, plus accrued but unpaid interest, liquidated damages, and other amounts owing in respect thereof through the date of acceleration, shall become, at the Investor's election, immediately due and payable in cash. Upon any Event of Default that results in acceleration of the February Note, the interest rate on the Note shall accrue at an interest rate equal to the lesser of 24% per annum or the maximum rate permitted under state law at the time of the default.

In connection with the February Note Transaction, effective on February 23, 2015, the Company entered into a Security Agreement with the Investor (the "Security Agreement") pursuant to which the Company granted a security interest in certain of its property (the "Collateral") to Dominion Capital in order to secure the prompt payment, performance and discharge in full of all of the Company's obligations under the Note. The Collateral shall consist of all of the Company's rights, title and interest in and to that certain Asset Purchase Agreement, dated November 7, 2014, by and among the Company, Regenicin, Inc., Clark Corporate Law Group, LLP, and Gordon & Rees, LLP and that certain Option Agreement, dated November 7, 2014, by and between the Company and Lonza Walkersville.

As part of the financing, Dominion received 1,250,000 shares of the Company's restricted common stock valued at $102 and recorded as deferred financing on the balance sheet and will be amortized over the term of the loan.

On March 31, 2015, the Company issued an additional Note to Dominion in the principal amount of $0.35 million. The March Note was issued upon the same terms and conditions as the February Note.

On July 1, 2015, the Company entered into a Securities Purchase Agreement (the "SPA") with an institutional investor (the "Investor") pursuant to which such Investor purchased an aggregate of $650,000 in principal amount of 12% Promissory Notes (the "Notes") due April 2, 2016 (the "Note Transaction"). This note was shortly thereafter converted into 766 shares of Series E Convertible Preferred Stock with a 10% OID discount.

On July 9, 2015, the Company entered into a Securities Purchase Agreement (the "Notes SPA") with four investors (the "Investors") pursuant to which such Investors purchased an aggregate of $1.0 million in principal amount of 12% Promissory Notes (the "Notes") due July 9, 2016 (the "Note Purchase Transaction"). In connection with these Note Transactions, effective on July 9, 2015, the Company entered into a Security Agreement with the Investors (the "Security Agreement") pursuant to which the Company agreed to grant a security interest in certain of its property (the "Collateral") to the Investors in order to secure the prompt payment, performance and discharge in full of all of the Company's obligations under the Notes.

Senior Secured Convertible Promissory Notes

12% Senior Secured Convertible Promissory Note and Warrants

Delafield Notes

On September 30, 2015, the Company entered into a Securities Purchase Agreement (the "Notes SPA") with an institutional investor for the sale of an aggregate principal amount $3.1 million (including 10% OID) 12% Senior Secured Convertible Promissory Notes due September 29, 2016 (the "Senior Secured Notes") and a warrant to purchase 1,299,000 shares of common stock (the "PP Warrant") in a private placement offering (the "PP Offering"). The gross proceeds to the Company from the PP Offering were $2.75 million.

The PP Warrant is exercisable at any time on or after the earlier to occur of (i) all shares of common stock underlying the PP Warrant are registered for resale under the Securities Act of 1933, and (ii) the date six (6) months from September 30, 2015 (the earlier to occur of (i) and (ii), the "Initial Exercise Date") and on or prior to the close of business on the five-year anniversary of the Initial Exercise Date at an exercise price of $2.00 per share.

The terms of the warrants had reset provisions that precluded their inclusion as equity and was recorded as a derivative liability.

Dominion Notes

On September 30, 2015, the Company entered into an exchange agreement (the "Exchange Agreement") with an existing institutional investor pursuant to which the existing investor exchanged $3.0 million (including OID and make-whole) aggregate principal amount of Notes Payable, which included principal and accrued interest for Senior Secured Convertible Notes of the Company for $3.0 million aggregate principal amount of Senior Secured Notes and a common stock purchase warrant to purchase 1,299,000 with a $2.00 exercise price.

Interest Terms

The principal amount of the Senior Secured Notes shall accrue interest at a rate equal to 12% per annum, payable on the Maturity Date in cash, or, at the Company's option, in common stock or a combination thereof. At any time upon five (5) days written notice to the Investor, the Company may prepay any portion of the principal amount of the Senior Secured Notes and any accrued and unpaid interest at an amount equal to 120% of the then outstanding principal amount of the Senior Secured Notes and accrued interest or 130% if a Qualified Financing (as defined in the Senior Secured Notes) has occurred.

The success of our business plan during the next 12 months and beyond is contingent upon us generating sufficient revenue to cover our costs of operations, or upon us obtaining additional financing. We believe our current capital resources are not sufficient to support our operations. We intend to continue our research efforts and to finance operations through debt and/or equity financings. We will seek additional debt and/or equity financing through private or public offerings or through a business combination or strategic partnership. There can be no assurance that such additional financing will be available to us on acceptable terms or at all. Similarly, there can be no assurance that we will be able to generate sufficient sales to cover the costs of our business operations.

On February 19, 2016 we closed on a $3.0 million investment from an institutional investor. Under the terms of the agreement, the investor will be issued $3.3 million worth of Series H Convertible Preferred Stock (including 10% original issue discount) from the Company and five year warrants exercisable for 13,200,000 shares of common stock at $0.40 per share. It is expected that the net proceeds will be used to repurchase part of the Series H Preferred from the Company's two largest institutional investors, for preparations towards the initiation of the Phase 2 clinical study of Engineered Skin Substitute (ESS) for the treatment of severe burns in collaboration with the US Army, and for general working capital purposes. The largest holders of the Series H Convertible Preferred Stock agreed to certain trading restrictions as part of the transaction.

Going Concern

Our financial statements have been prepared assuming that we will continue as a going concern which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. Because we believe our current capital resources are not sufficient to support our operations and there can be no assurance that we will be successful in obtaining additional financing on favorable terms, or at all there is substantial doubt about our ability to continue as a going concern. We will, however, seek additional debt and/or equity financing through private or public offerings or through a business combination or strategic partnership. Our financial statements do not include any adjustment relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should we become unable to continue as a going concern.

Off Balance Sheet Arrangements

There are no off-balance sheet arrangements.

Contractual Obligations

We have the following contractual obligations:

Lease Arrangements

Future non-cancellable minimum lease payments for our facilities are (in thousands):

2016	$ 139
Total	$ 139

Sponsored Research Arrangements:

We entered into a number of sponsored research agreements during 2014, primarily, which require us to make future payments as follows (in thousands):

2016	$ 150
Total	$ 150

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Not applicable.

Item 8. Financial Statements and Supplementary Data.

The financial statements are included herein commencing on page F-1.

Index to Financial Statements Required by Article 8 of Regulation S-X:

Audited Financial Statements:

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

Not applicable

Item 9A. Controls and Procedures.

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive, financial and accounting officer, we did not conduct an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended. Our principal executive, financial and accounting officer concluded that, as of December 31, 2015, in light of the material weaknesses described below, our disclosure controls and procedures were not effective to ensure that the information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is accumulated and communicated to management, including our chief executive officer, financial and accounting officer, to allow timely decisions regarding required disclosure, and that such information is recorded, processed, summarized and reported within the time periods prescribed by the SEC.

Management's Report on Internal Controls over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, the company's principal executive and acting principal financial officer and effected by the our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP and includes those policies and procedures that:

1. There is a lack of accounting personnel with the requisite knowledge of Generally Accepted Accounting Principles in the U.S. ("GAAP") and the financial reporting requirements of the U.S. Securities and Exchange Commission;

2. There are insufficient written policies and procedures to ensure the correct application of accounting and financial reporting with respect to the current requirements of GAAP and SEC disclosure requirements; and

3. There is a lack of segregation of duties, in that the Company only had one person performing all accounting-related duties.

4. Management has not performed a proper evaluation of 1) the disclosure controls and procedures and 2) internal controls over financial reporting.

5. The Company lacks controls and processes over the identification and approval of related party transactions.

The Company did not perform a proper evaluation, risk assessment or monitor their internal controls over financial reporting.

Lack of controls in place, including those surrounding related party transactions, to ensure that all material transactions and developments impacting the financial statements are reflected and properly recorded.

- Lack of documentation to support occurrences of review and approval procedures

Notwithstanding the existence of these material weaknesses in the Company's internal control over financial reporting, the Company's management believes that the consolidated financial statements included in its reports fairly present in all material respects the Company's financial condition, results of operations and cash flows for the periods presented.

Internal Control Remediation Efforts. Management expects to remediate the three material weaknesses identified above as follows:

1. Management has leveraged and will continue to leverage experienced consultants to assist with ongoing GAAP and U.S. Securities and Exchange Commission compliance requirements. Additionally, management is actively looking to expand the accounting and finance function within the Company by hiring appropriate staff to resolve this material weakness in 2016.

2. Segregation of duties will be analyzed and adjusted Company-wide as part of the internal controls implementation that is expected to conclude in 2016.

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

Our Company's management concluded that in light of the material weaknesses described above, our company did not maintain effective internal control over financial reporting as of December 31, 2015 based on the criteria set forth in the 2013 framework issued by the COSO.

Item 9B. Other Information

Amarantus Diagnostics Sale

On May 11, 2016 (the "Effective Date"), the Company entered into a Share Exchange Agreement (the "Exchange Agreement") among the Company, Amarantus Diagnostics, Inc., a wholly-owned subsidiary of the Company ("AMDX") and Avant Diagnostics, Inc. (the "Buyer"). Pursuant to the terms of the Exchange Agreement, the Buyer purchased 100% of the outstanding capital stock of AMDX from the Company (the "AMDX Sale"). The AMDX Sale closed upon the execution of the Exchange Agreement. Gerald Commissiong, President and Chief Executive Officer of the Company, became a member of the Buyer's Board of Directors (the "Board") upon closing of the

AMDX Sale. A copy of the Exchange Agreement is attached hereto as Exhibit 2.1 and incorporated herein by reference.

The Buyer paid aggregate consideration of 80,000,000 shares of its common stock to the Company for the AMDX Sale, subject to the issuance of additional shares upon the occurrence of certain events set forth in the Exchange Agreement (the "AMDX Consideration"). During the thirty-six (36) months from May 11, 2016 (the "Measurement Period"), if AMDX generates sales of at least five million dollars ($5,000,000) with respect to MSPrecise®, during any consecutive 12-month period or twelve million dollars ($12,000,000) million cumulatively during the Measurement Period, the Buyer shall issue the Company an additional 10,000,000 shares of the Buyer's common stock (the "Additional AMDX Consideration") . Each share of Buyer common stock received in connection with the AMDX Sale shall be subject to a lock-up beginning on the Effective Date and ending on the earlier of (i) eighteen (18) months after such date or (ii) a Change in Control (as defined in the Exchange Agreement) or (iii) written consent of the parties to that certain escrow agreement entered into between the Buyer, AMDX, the Company and certain creditors of the Company (the "Lock-Up Period").

At the end of the Lock-Up Period, in the event that the AMDX Consideration has a value equal to or less than $3,000,000 in the aggregate on the date the Lock-Up Period expires (based on the average closing "print' prices at 4:00 p.m. of the Buyer's common stock on the last five days prior to the date the Lock-Up Period expires as listed or quoted on any national securities exchange or over-the-counter market (including any tier maintained by the OTC Markets, Inc.), as the case may be (the "Lock-Up Termination Date Closing Price") multiplied by the AMDX Consideration) (the "Lock-Up Termination Date"), the Buyer shall issue the Company such number of additional shares of its common stock (the "Additional Common Stock") equal to the lesser of (i) 9.99% of the outstanding shares of the Buyer's common stock as of the Lock-Up Termination Date or (ii) the difference between $3,000,000 and the value of the AMDX Consideration as of the Lock-Up Termination Date divided by the Lock-Up Termination Date Closing Price. Notwithstanding the foregoing, in lieu of issuance of any Additional Common Stock, the Buyer may, in its sole discretion, pay to the Buyer an amount in cash equal to the aggregate value of the Additional Buyer Common Stock to be issued. So long as the Company holds any shares of Additional Common Stock, at any meeting of the stockholders of the Buyer or any written action by consent of stockholders of the Buyer called for any matter, unless otherwise directed in writing by the Buyer, the Company shall vote or shall cause to be voted any issued and outstanding shares of Additional Common Stock owned by the Company as of the record date with respect to such meeting or consent as requested by the Buyer's chief executive officer.

The Exchange Agreement includes customary representations, warranties and covenants of the Company, AMDX and the Buyer made solely for the benefit of the parties to the Exchange Agreement. The assertions embodied in those representations and warranties were made solely for purposes of the contract among the Company, AMDX and the Buyer and may be subject to important qualifications and limitations agreed to by the Company, AMDX and the Buyer in connection with the negotiated terms. Moreover, some of those representations and warranties may not be accurate or complete as of any specified date, may be subject to a contractual standard of materiality different from those generally applicable to stockholders or may have been used for purposes of allocating risk among the Company, AMDX and the Buyer rather than establishing matters as facts. Investors are not third-party beneficiaries under the Exchange Agreement and should not rely on the representations, warranties and covenants in the Exchange Agreement or any description thereof as characterizations of the actual state of facts of the Company, AMDX and the Buyer or any of their respective subsidiaries or affiliates.

In connection with the Exchange Agreement, on the Effective Date, the Company entered into an escrow agreement dated May 11, 2016 by and among the Company, the Buyer, AMDX, holders of the Company's secured debt (" Secured Holders") and Robinson Brog Leinwand Greene Genovese & Gluck P.C., a professional corporation organized and existing under the laws of the State of New York, as Escrow Agent (the "Escrow Agreement") pursuant to which the AMDX Consideration and Additional AMDX Consideration (collectively, the "Escrow Shares") was deposited into escrow with the Escrow Agent to be held in escrow for the Lock-Up Period. 1.5 million of the Escrow Shares can be released to the Secured Holders for any event of default under the agreements between the Secured Holders and the Company. In addition, 7.25 million of the Escrow Shares can be released to the Company to repay certain notes and 7.25 million of the Escrow Shares can be released to the Company in connection with a stock dividend by the Company to its holders of common stock. The remaining 74 million of the Escrow Shares can be sold and assigned by the Company; provided that no less than 70% of the net proceeds from any sale shall be used to repay certain notes of the Company or redeem outstanding shares of preferred stock.

In connection with the Exchange Agreement, on the Effective Date, the Buyer issued a convertible promissory note to the Company pursuant to which the Company purchased a note with aggregate principal amount of $50,000 for an aggregate purchase price of $50,000 (the "Note"). The Note bears interest at 12% per annum and matures one year from the date of issuance. The Note will be convertible at the option of the Company at any time into shares of common stock of the Buyer, at an initial conversion price equal to $0.20, subject to adjustment. The conversion price of the Note is subject to customary adjustments provisions for stock splits, stock dividends, recapitalizations and the like. The Buyer has contractually agreed to restrict its ability to convert the Note such that the number of shares of Buyer common stock held by the Company and its affiliates after such conversion does not exceed 4.99% of the Buyer's then issued and outstanding shares of common stock.

Issuance of Senior Secured Notes

On May 13, 2016, two institutional investors purchased $1,540,000 (including 10% OID) principal amount of 10% Senior Secured Convertible Promissory Notes due May 13, 2017 (the "Senior Secured Notes") pursuant to a previously disclosed Securities Purchase Agreement (the "Notes SPA") entered into on April 14, 2016.

In connection with the sale of the Senior Secured Notes, the Company issued warrants to purchase an aggregate 1,400,000 shares of common stock to the institutional investors. The warrant issued pursuant to the Notes SPA are exercisable on or prior to the close of business on the five-year anniversary of the issuance date at an exercise price of $0.40 per share. The warrants may be exercised on a cashless basis in the event there is no effective registration statement covering the shares of common stock issuable upon exercise.

The warrants described above were not registered under the Securities Act of 1933, as amended (the "Securities Act"), or the securities laws of any state, and were offered and sold in reliance on the exemption from registration afforded by Section 4(a)(2) or other appropriate exemptions promulgated under the Securities Act.

PART III

Item 10. Directors, Executive Officers, and Corporate Governance.

The following information sets forth the names, ages, and positions of the Company's current directors and executive officers:

Name	Age	Office(s) held
Gerald E. Commissiong	33	President and Chief Executive Officer, Director
Robert Farrell	66	Chief Financial Officer
Dr. John W. Commissiong	71	Chief Scientific Officer, Director
Marc E. Faerber	61	Controller, Vice President of Financial Operations, Treasurer, Secretary
Robert L. Harris	72	Director
Donald D. Huffman	69	Director
Joseph Rubinfeld, Ph.D.	83	Director

Set forth below is a brief description of the background and business experience of each of our current executive officers and directors.

Gerald E. Commissiong, Chief Executive Officer, President, Director

Mr. Commissiong has served as the Chief Operating Officer and a Director of Amarantus since April of 2011. On October 23, 2011, Mr. Commissiong was appointed to serve as the Company's Chief Executive Officer and President. Mr. Commissiong was the co-founder and President and Chief Executive Officer of Amarantus, which was formerly known as CNS Protein Therapeutics, Inc. He played a significant role in sourcing the seed funding for the Company in 2008, assisted in developing a strategic corporate development pathway that involved the recruitment of relevant expertise, identification of appropriate development strategy, liaising with expertise to define development pathway, creation of a technological mitigation strategy and the identification of appropriate funding partners with a strategic interest in the Company's technology. Mr. Commissiong also recruited senior executives to the Board to guide the Company's growth and generated its official marketing materials, including investor brochures, corporate handouts, email newsletters and other materials necessary to raise awareness of the company. Prior to co-founding Amarantus, Mr. Commissiong played professional football for the Calgary Stampeders of the Canadian Football League. Mr. Commissiong holds a B.S. degree in Management Science and Engineering with a focus on Financial Decisions from Stanford University. Mr. Commissiong is qualified to serve as Director because of his history with the Company and his management and leadership qualities. In addition, Mr. Commissiong skills and knowledge of the financial markets makes him invaluable to the Company.

Robert Farrell, Chief Financial Officer

Mr. Farrell was appointed as the Company's Chief Financial Officer effective April 1, 2014, Mr. Farrell served as Chief Financial Officer of Titan Pharmaceuticals from 1996 to 2008, and as President and CEO from 2008 to 2010. During his tenure at Titan Mr. Farrell was responsible for all SEC filings, fund raising, financial and tax planning strategies, mergers & acquisitions, corporate partnerships, licensing transactions and financial operations. Mr. Farrell most recently served as CFO at Sanovas, Inc. Mr. Farrell previously served as CFO, Corporate Group Vice President and General Counsel at Fresenius USA and Fresenius Medical Care. Mr. Farrell also previously served as the CFO for the Institute for One World Health in San Francisco and currently serves on the Board of Directors of Prime Genomics, Inc. Mr. Farrell holds a J.D. from the University of California's Hastings School of Law.

Dr. John W. Commissiong, Chief Scientific Officer, Director

Dr. Commissiong has served as the Chief Scientific Officer and a Director of Amarantus since co-founding the Company in 2008. From 2000 through 2008 Dr. Commissiong served as the CSO of Neurotrophics Inc & Prescient Neuropharma Inc. Dr. Commissiong has been focused on the discovery of novel neurotrophic factors for the treatment of neurodegenerative diseases as well as understanding the fundamental underlying biology of protoplasmic type-1 astrocytes that secrete neurotrophic factors. He was Chief of the Neural Transplantation Unit, NINDS-NIH, from 1989-94 where his research focused on identifying therapeutic approaches to spinal cord injury. Dr. Commissiong was Head of the Neurotrophic Factors Group, NINDS-NIH, from 1994-97 where he focused on developing technologies to systematically identify novel neurotrophic factors with applications for specific Central Nervous System disorders. He co-founded Prescient Neuropharma in 1999, and discovered MANF in 2003. MANF is currently in preclinical development for the treatment of Parkinson's disease. The work pioneered by Dr. Commissiong has led to significant advancements in the field of astrocyte-neuron biology. Dr. Commissiong believes that a fundamental understanding of astrocyte-neuron interactions in the Central Nervous System will lead to a new generation of therapies to treat brain-related disorders.

Dr. Commissiong did his Postdoctoral work in the Lab Preclin Pharmac, NIMH-NIH, concentrating on the application of quadrupole mass spectrometry in the analysis of neurotransmitters. He holds a Ph.D. in Neurophysiology from the University of Southampton, a M.Sc. in Biochemical Pharmacology from the University of Southampton and a B.S. in Biology and Chemistry from the University of the West Indies.

Dr. Commissiong is qualified to serve as a Director because of his extensive experience in drug discovery, and research and his work in the field of astrocyte-neuron biology.

Marc E. Faerber, Controller, Treasurer, Secretary and Vice President of Operations

Mr. Faerber currently serves as our Controller, Treasurer, Secretary and Vice-President of Financial Operations and previously served as the Chief Financial Officer from May 2009 through March 2014. In addition, Mr. Faerber has worked as an independent business and financial advisor since 2001 to the present. In that capacity, he provides financial, business and strategic advisory services to various startup entities, including medical device, biotechnology, software and alternative energy related companies. His services and experience include facilitating startups in establishing appropriate internal controls, developing administrative procedural processes, writing and critiquing business plans and strategies, preparation of company presentations, short term financial operating plans, and long term strategic financial planning, assisting organizations with seeking financing and rendering advice in various negotiations related to merger and acquisitions, distribution rights, technology licensing and other business structural issues, and review and implementation of internal control structures in support of Sarbanes Oxley compliance. Mr. Faerber is a licensed CPA (Inactive) in California and was a Certified Valuation Analyst from 2004 through 2007. He holds a B.S. in Business Administration from Providence College and has done course work towards a M.S. in Taxation at Golden Gate University.

Dr. Joseph Rubinfeld, Director

Dr. Rubinfeld has served as a director of the Company since December 5, 2014. Dr. Rubinfeld is currently a Board member of Regenicin, Inc. and CytRx Corporation. Earlier in his career, Dr Rubinfeld served 12 years at Bristol Myers, where in addition to developing Amoxicillin and Cephadroxil, he was instrumental in licensing their original anti-cancer line of products, including Mitomycin, Etoposide, and Bleomycin. Dr. Rubinfeld is also credited with making a major scientific and public health contribution to society by inventing the first ever synthetic biodegradable detergent. In 1980, Dr. Rubinfeld was one of four co-founders of Amgen, Inc. and served as its Chief of Operations, where one of his primary efforts was the prioritization of erythropoietin (EPO) in Amgen's pipeline due to its initial commercialization pathway under the Orphan Drug Act. In 1984, Dr. Rubinfeld won the prestigious Common Wealth Award for Science and Invention, which was a testament to his prowess for achieving major inventions, represented by the numerous patents obtained during his distinguished career. In 1991 he co-founded SuperGen, Inc., where he served as President and Chief Executive Officer until 2003 and as a Board member until 2005. He has also served as an advisor or Board member to a number of companies including AVI BioPharma and Quark Pharmaceuticals. Dr. Rubinfeld received a B.S. degree in chemistry from C.C.N.Y. and M.A. and Ph.D. in chemistry from Columbia University. Dr. Rubinfeld is qualified to serve as Director because of business and scientific experience working in the pharmaceutical and drug industries.

Donald D. Huffman, Director

Mr. Huffman has served as a director of the Company since July 22, 2014 and serves on the board of two other companies. In March 2015, Mr. Huffman became a member of the board of directors of SteadyMed LTD. (STDY - NASDAQ) and has served on the board of Dance BioPharma, Inc., since July 2013. From September 2010 to March 2012, Mr. Huffman served as the Chief Financial Officer of Wafergen Biosystems Inc., a publicly-held emerging genomic analysis company and was its Co-President from September 2011 to March 2012. From October 2008 to September 2010, Mr. Huffman served as the Chief Financial Officer of Asante Solutions, Inc., a medical device company with an approved wearable insulin pump. From July 2006 to October 2008, Mr. Huffman served as Chief Financial Officer of Guava Technologies, Inc., a life science instrumentation company acquired by Millipore Corporation and then Merck & Co., Inc. From October 2004 to July 2006, Mr. Huffman served as Chief Financial Officer and principal of Sanderling Ventures, a biomedical venture capital firm. Mr. Huffman also has served as the Chief Financial Officer of three other public companies: Volcano Corporation (formerly known as EndoSonics Corporation), a company that manufactures medical devices; Microcide Pharmaceuticals, Inc., a biopharmaceutical company; and Celtrix Pharmaceuticals, Inc., a company that developed novel therapeutics for the treatment of debilitating, degenerative conditions, which was acquired by Insmed Incorporated in 2000. Mr. Huffman earned a B.S. in Mineral Economics from Pennsylvania State University and an M.B.A. from the State University of New York at Buffalo. He completed the Financial Management Program at the Stanford University Graduate School of Business. Mr. Huffman is qualified based on his extensive financial background primarily focused in the life sciences.

Robert L. Harris, Director

Mr. Harris has served as a member of the Board of Amarantus since December 2010. Mr. Harris is a retired Vice President of Environmental, Health, Safety, Technical and Land Services at Pacific Gas and Electric Company, where he worked from September 1972 to January 2007. He graduated from San Francisco State University in 1965 and received his Juris Doctor degree from the University of California School of Law at Berkeley (Boalt Hall) in 1972. He was admitted to the California State Bar in December 1972 and argued and won a case in the United States Supreme Court in 1985. Harris also completed the Harvard Graduate School of Business Advanced Management Program and the Management Development Program at Duke University's School of Business. For five years, Harris was selected by Ebony magazine as one of the "100 Most Influential Blacks in America" (1980, 1992, 1993, 1994 and 1995). Mr. Harris is qualified to serve as a Director because of his extensive experience as a business executive and his legal background.

Family Relationships

There are no family relationships between or among the directors, executive officers or persons nominated or chosen by the Company to become directors or executive officers, except that two of the Company's officers and directors, Dr. John Commissiong and Gerald Commissiong, are father and son.

Involvement in Certain Legal Proceedings

To our knowledge, our directors and executive officers have not been involved in any of the following events during the past ten years:

- any bankruptcy petition filed by or against such person or any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time;
- any conviction in a criminal proceeding or being subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);
- being subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining him from or otherwise limiting his involvement in any type of business, securities or banking activities or to be associated with any person practicing in banking or securities activities;
- being found by a court of competent jurisdiction in a civil action, the SEC or the Commodity Futures Trading Commission to have violated a Federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated;
- being subject of, or a party to, any Federal or state judicial or administrative order, judgment decree, or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of any Federal or state securities or commodities law or regulation, any law or regulation respecting financial institutions or insurance companies, or any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- being subject of or party to any sanction or order, not subsequently reversed, suspended, or vacated, of any self-regulatory organization, any registered entity or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Corporate Governance

Committees of the Board

Robert Harris, Donald Huffman, and Joseph Rubinfeld serve on the Compensation Committee of the Board, with Dr. Rubinfeld serving as the Chairman. Our Compensation Committee assists the Board in discharging its responsibilities relating to executive compensation, succession planning for the Company's executive team, and to review and make recommendations to the Board regarding employee benefit policies and programs, incentive compensation plans and equity-based plans.

Robert Harris, Donald D. Huffman, and Joseph Rubinfeld serve on the Governance and Nominating Committee of the Board, with Mr. Harris serving as the Chairman. The Nominating and Corporate Governance Committee is responsible for overseeing the appropriate and effective governance of the Company, including, among other things, (a) nominations to the Board of Directors and making recommendations regarding the size and composition of the Board of Directors and (b) the development and recommendation of appropriate corporate governance principles.

Our audit committee consists of Donald D. Huffman, Robert Harris, and Joseph Rubinfeld, each of whom is a non-employee director. Mr. Donald Huffman is the chairperson of our audit committee. Our board of directors has determined that each member designee of our audit committee is an independent director as defined by Rule 10A-3 promulgated by the SEC pursuant to the Securities Exchange Act of 1934, as amended and meets the requirements of financial literacy under SEC rules and regulations. Mr. Huffman serves as our audit committee financial expert, as defined under SEC rules.

Our audit committee is responsible for, among other things:

- selecting and hiring our independent auditors, and approving the audit and non-audit services to be performed by our independent auditors;
- evaluating the qualifications, performance and independence of our independent auditors;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to financial statements or accounting matters;
- reviewing the adequacy and effectiveness of our internal control policies and procedures;
- discussing the scope and results of the audit with the independent auditors and reviewing with management and the independent auditors our interim and year-end operating results; and
- preparing the audit committee report that the SEC requires in our annual proxy statement.

Our board of directors has adopted a written charter for our audit committee, which is available on our website (www.amarantus.com).

Code of Ethics

We have adopted a written code of ethics, the Code of Business Conduct and Ethics, which applies to all of our directors, officers (including our chief executive officer and chief financial officer) and employees. Our Code of Business Conduct and Ethics is available on our website (www.amarantus.com).

Board Leadership Structure and Role in Risk Oversight

We have not adopted a formal policy on whether the Chairman and Chief Executive Officer positions should be separate or combined. The Board of Directors does not currently have a Chairman.

Our Board of Directors is primarily responsible for overseeing our risk management processes. The Board of Directors receives and reviews periodic reports from management, auditors, legal counsel, and others, as considered appropriate regarding our Company's assessment of risks. The Board of Directors focuses on the most significant risks facing our company and our Company's general risk management strategy, and also ensures that risks undertaken by our Company are consistent with the Board's appetite for risk. While the Board oversees our Company, our Company's management is responsible for day-to-day risk management processes. We believe this division of responsibilities is the most effective approach for addressing the risks facing our Company and that our Board leadership structure supports this approach.

Item 11. Executive Compensation.

Summary Compensation Table

The table below summarizes all compensation awarded to, earned by, or paid to each named executive officer for the Company's last two completed fiscal years for all services rendered to the Company.

SUMMARY COMPENSATION TABLE

Name and principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Gerald E. Commissiong, President, Chief Executive Officer	2015	225,000	5,252	-	-	-	-	-	230,252
	2014	170,625	50,000	-	438,000	-	-	-	658,625
Dr. John W. Commissiong, Chief Scientific Officer	2015	175,000	4,294	-	312,200	-	-	-	491,494
	2014	126,000	-	-	-	-	-	-	126,000
Marc Faerber, Treasurer, VP of Finance & Operations, and Secretary	2015	160,000	3,343	-	-	-	-	-	163,343
	2014	138,333	-	-	123,400	-	-	-	261,733
Robert Farrell, Chief Financial Officer (1)	2015	200,000	-	-	-	-	-	-	200,000
	2014	150,001	25,000	-	619,600	-	-	-	794,601

(1) Mr. Farrell was hired by the Company in April 2014.

Outstanding Equity Awards at Fiscal Year-End

The table below summarizes all unexercised options, stock that has not vested, and equity incentive plan awards for each named executive officer as of December 31, 2015.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END TABLE

	OPTION AWARDS					STOCK AWARDS			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Shares of Stock That Have Not Vested (#)	Market Value of Shares or Shares of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Shares or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Shares or Other Rights That Have Not Vested (#)
Gerald E. Commissiong,	1,796(1)	-(1)	-	$ 3.56(1)	4/10/21(1)	-	-	-	-
President and Chief	183	33,151	-	13.74(1)	9/22/24(1)				
Executive Officer, Director	971,250(2)	-(2)	-	$ 0.225(2)	7/15/22(2)				
				$ 0.7000(2)	11/4/22(2)				
Dr. John W. Commissiong,	12,058(1)	12,153(1)	-	$ 13.38(1)	4/10/21(1)	-	-	-	-
Chief Scientific	697,500(2)	-(2)		$ 0.225(2)	7/15/22(2)				
Officer, Director				$ 0.7000(2)	11/4/22(2)				
Marc E. Faerber,	6,667(1)	-(1)	-	18.53(1)	7/11/24(1)	-	-	-	-
Treasurer, VP of Finance	487,500(2)	-(2)		$ 0.225(2)	7/15/22(2)				
& Operations, and Secretary				$ 0.700(2)	11/4/22(2)				
Robert Farrell,	33,190(1)	20,143(1)		$ 11.64(1)	3/31/24(1)				
Chief Financial Officer									

(1) Common stock shares
(2) Preferred stock shares

Director Compensation

The following summary compensation table sets forth all compensation awarded to, earned by, or paid to the named directors by the Company during the year ended December 31, 2015.

DIRECTOR COMPENSATION TABLE

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	Non-Qualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Robert L. Harris	82,000	-	53,520	-	-	-	135,520
Donald Huffman	66,000	-	532,180	-	-	-	598,180
Iain Ross	31,000	-	532,180	-	-	-	563,180
Dr. Joseph Rubinfeld	50,000	-	548,560	-	-	-	598,560

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

The following table sets forth the beneficial ownership of the Company's capital stock by each executive officer and director, by each person known by the Company to beneficially own more than five percent (5%) of any class of stock and by the executive officers and directors as a group. Except as otherwise indicated, all shares of common stock are owned directly and the percentage shown is based on shares of common Stock issued and outstanding as of March 31, 2016. As used in this table, "beneficial ownership" means the sole or shared power to vote, or to direct the voting of, a security, or the sole or shared investment power with respect to a security (i.e., the power to dispose of, or to direct the disposition of, a security). In addition, for purposes of this table, a person is deemed, as of any date, to have "beneficial ownership" of any security that such person has the right to acquire within 60 days after such date. Except as otherwise notice, the address of each officer and director listed is c/o of the Company at 655 Montgomery Street, Suite 900, San Francisco, CA 94111.

Title of class	Name and address of beneficial owner	Amount of beneficial ownership	Percent of class(1)
Current Executive Officers & Directors:			
Common Stock	Gerald E. Commissiong	443,769(2)	0.72%
Common Stock	Dr. John W. Commissiong	383,028(3)	0.62%
Common Stock	Robert Farrell	50,555(4)	0.00%
Common Stock	Marc Faerber	177,745(5)	0.29%
Common Stock	Robert L. Harris	196,351(6)	0.32%
Common Stock	Donald D. Huffman	17,558(7)	0.00%
Common Stock	Dr. Joseph Rubinfeld	52,492(8)	0.00%
Total of All Officers and Directors:		**1,321,499**	**2.13%**
5% Beneficial Owners:			

(1) Based on 61,147,256 shares of our common stock outstanding as of April 11, 2015.

(2) Includes: (i) 1,796 shares of common stock underlying an option to purchase shares at a price of $3.56 per share which are exercisable within the next 60 days;(ii) 33,333 shares of common stock underlying options to purchase shares at a price of $13.74, (iii) 323,750 shares of common stock which are issuable upon conversion of 971,250 shares of Series B Convertible Preferred stock; (iv) 2,333 shares of common stock which are issuable upon conversion of 350,000 shares of Series C Convertible Preferred stock; and (v) 926 shares of common stock which are issuable upon exercise of outstanding warrants

(3) Includes: (i) 24,210 shares underlying an option to purchase 877 and 23,333 shares at a price of $3.56 and $13.38 which are exercisable within the next 60 days; (ii) 232,500 shares of common stock which are issuable upon conversion of 697,500 shares of Series B Convertible Preferred stock; (iii) 1,333 shares of common stock which are issuable upon conversion of 200,000 shares of Series C Convertible Preferred Stock; and (iv) 926 shares of common stock which are issuable upon exercise of outstanding warrants.

(4) Includes: 53,333 shares underlying an option to purchase shares at a price of $11.625 which are exercisable within the next 60 days.

(5) Includes: (i) 6,667 shares underlying an option to purchase shares at a price of $18.525 which are exercisable within the next 60 days; (ii) 162,500 shares of common stock which are issuable upon conversion of 487,500 shares of Series B Convertible Preferred stock; and (iii) 1,333 shares of common stock issuable upon conversion of 200,000 shares of Series C Convertible Preferred stock.

(6) Includes: (i) 4.000 shares underlying an option to purchase shares at a price of $13.38 which are exercisable within the next 60 days; (ii) 43,750 shares of common stock which are issuable upon conversion of 131,250 shares of Series B Convertible Preferred stock; (iii) 926 shares of common stock which are issuable upon exercise of outstanding warrants; and (iv) 9,063 shares which are owned by Mr. Harris' spouse

(7) Includes: 17,558 shares of common stock underlying an options to purchase 1,333 and 16,225 shares, at a price of $21.90 and $12.30 per share respectively, within the next 60 days.

(8) Includes: (i) 24,725 shares underlying an options to purchase 6,667, 1,333 and 16,725 shares, at a price of $7.50, $12.75 and $12.30 per share respectively, which are exercisable within the next 60 days; and (ii) 1,389 shares of common stock which are issuable upon exercise of outstanding warrants.

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

The following is a description of transactions since January 1, 2015, to which we have been a party in which the amount involved exceeded or will exceed $120 and in which any of our directors, executive officers, beneficial holders of 5% or more of our capital stock, or entities affiliated with them, had or will have a direct or indirect material interest:

On March 2, 2015, the Company loaned MedicoRx, Inc. $25,000 in an unsecured convertible promissory note. Joseph Rubinfeld is President and CEO and also a Board Member of Amarantus. The note provided the Company with first right of refusal on any additional investments, but there are no further obligations beyond the $25,000.

Director Independence

When applying the definition of independence set forth in Rule 4200(a)(15) of The Nasdaq Stock Market, Inc., the Company believes that Robert L. Harris, Donald D. Huffman, and Dr. Joseph Rubinfeld, are independent directors.

Item 14. Principal Accounting Fees and Services

The following table sets forth fees billed to us by our independent auditors for the years ended 2015 and 2014 for (i) services rendered for the audit of our annual financial statements and the review of our quarterly financial statements, (ii) services rendered that are reasonably related to the performance of the audit or review of our financial statements that are not reported as Audit Fees, and (iii) services rendered in connection with tax preparation, compliance, advice and assistance. All services are approved and pre-approved by the audit committee (amount in thousands).

SERVICES	**2015**	**2014**
Audit fees	$ 485	$ 283
Audit-related fees		
Tax fees	66	41
All other fees	23	40
Total fees	$ 574	$ 364

PART IV

Item 15. Exhibits, Financial Statements Schedules.

Exhibit No.	Description
2.1	Agreement and Plan of Merger, dated January 8, 2015, by and among Amarantus Bioscience Holdings, Inc., DioGenix Inc., Neuro Acquisition Corporation and Nerveda, LLC, as Security holder Representative, Incorporated by reference to the Company's Current Report on Form 8-K filed on January 13, 2015.
3.1	Articles of Incorporation of Amarantus BioScience, Inc. filed with the Secretary of State of Nevada on March 22, 2013.Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed April 1, 2013.
3.2	Certificate of Amendment to Certificate of Incorporation. Incorporated by reference to Current Report on Form 8-K filed October 14, 2011.
3.3	Certificate of Amendment to the Certificate of Incorporation. Incorporated by reference to Current Report on Form 8-K filed November 14, 2012.
3.4	Certificate of Designation of Series B Preferred Stock filed with the Secretary of State on April 2, 2013. Incorporated by reference to the Company's Current Report on Form 8-K filed April 4, 2013.
3.5	Bylaws. Incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed April 1, 2013
3.6	Certificate of Amendment to Certificate of Incorporation-Delaware. Incorporated by reference to Current Report on Form 8-K filed November 27, 2012.
3.7	Certificate of Designation of Series D Preferred Stock filed with the Secretary of State on June 30, 2014. Incorporated by reference to the Company's Current Report on Form 8-K filed on July 7, 2014.
3.8	Certificate of Amendment to Certificate of Designation of Series E Preferred Stock filed December 19, 2014. Incorporated by reference to the Company's Current Report on Form 8-K filed on December 24, 2014.
3.9	Certificate of Amendment to Certificate of Designation of Series E Preferred Stock filed January 13, 2014. Incorporated by reference to the Company's Current Report on Form 8-K filed on January 14, 2015.
3.10	Certificate of Amendment to Certificate of Designation of Series E Preferred Stock filed March 3, 2015. Incorporated by reference to the Company's Current Report on Form 8-K filed on March 3, 2015.
3.11	Certificate of Designation of Series G Preferred Stock filed April 23, 2015 Incorporated by reference to the Company's Current Report on Form 8-K filed on April 28, 2015.
3.12	Second Amended and Restated Certificate of Designations of Series E Preferred Stock. Incorporated by reference to the Company's Current Report on Form 8-K filed on July 15, 2015.
3.13	Amended and Restated Certificate of Designations of Series G Preferred Stock. Incorporated by reference to the Company's Current Report on Form 8-K filed on July 15, 2015.
3.14	Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series H 12% Convertible Preferred Stock. Incorporated by reference to the Company's Current Report on Form 8-K filed on February 24, 2016.
3.15	Amendment to Certificate of Designation of Preferences, Rights and Limitations of Series E 12% Convertible Preferred Stock. Incorporated by reference to the Company's Current Report on Form 8-K filed on Form 8-K filed on February 24, 2016.
3.16	Amendment to Certificate of Designation of Preferences, Rights and Limitations of Series E 12% Convertible Preferred Stock Incorporated by reference to the Company's Current Report on Form 8-K filed on Form 8-K filed on March 4, 2016.
3.17	Agreement and Plan of Merger, dated January 8, 2015, by and among Amarantus Bioscience Holdings, Inc., DioGenix, Inc., Neuro Acquisition Corporation and Nerveda, LLC, as Security holder Representative. Incorporated by reference to the Company's Current Report on Form 8-K filed on January 13, 2015.
3.18	Certificate of Amendment to Certificate of Designation of Series E Preferred Stock filed January 13, 2014. Incorporated by reference to the Company's Current Report on Form 8-K filed on January 14, 2015.
4.1	Senior Secured Convertible Promissory Note Agreement dated December 28, 2010. Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K/A filed June 3, 2011
4.2	Form of Rights Agreement, Form of Certificate of Designations, Form of Right Certificate, and the Form of Summary of Rights to Purchase Preferred Shares. Incorporated by reference to Current Report on Form 8-K filed December 28, 2012.
10.1	Second Amendment to Senior Secured Convertible Promissory Note Agreement. Incorporated by reference to Current Report on Form 8-K/A filed June 3, 2011.
10.2	Convertible Promissory Note Agreement as amended on March 23, 2011. Incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.3	Note and Warrant Purchase Agreement - Molecular Medicine Research Institute Incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.4	Sponsored Research Agreement. Incorporated by reference to Exhibit 10.5 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.5	Note and Warrant Purchase Agreement - The Parkinson's Institute. Incorporated by reference to Exhibit 10.6 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.6	Promissory Note - Neurotrophics, Inc. Incorporated by reference to the Company's Current Report on Form 8-K/A filed June 3, 2011.

10.7	Intellectual Property Assignment Incorporated by reference to Exhibit 10.8 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.8	Data Transfer Agreement Incorporated by reference to Exhibit 10.9 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.9	Consulting Agreement with Keelin Reeds Partners Incorporated by reference to Exhibit 10.10 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.10	Executive Services Agreement, as amended. Incorporated by reference to Exhibit 10.11 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.11	Sublease Incorporated by reference to Exhibit 10.12 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.12	MJFF Research Grant Terms and Conditions Incorporated by reference to Exhibit 10.13 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.13	2008 Stock Plan. Incorporated by reference to Exhibit 10.14 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.14	Letter of Agreement with Argot Partners, LLC Incorporated by reference to Exhibit 10.15 of the Company's Current Report on Form 8-K/A filed June 3, 2011.
10.15	Consent to Assignment between Juvaris BioTherapeutics, Inc. and the Company dated May 31, 2011. Incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed June 15, 2011
10.16	Lease Agreement, as amended - Juvaris BioTherapeutics, Inc. Incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K filed June 15, 2011
10.17	Note Purchase Agreement - Samuel Herschkowitz. Incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed October 3, 2011
10.18	Promissory Note dated October 4, 2011 issued by the Company to Samuel Herschkowitz. Incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed October 3, 2011
10.19	Letter Agreement regarding Pledged Shares between the Company and Samuel Herschkowitz. Incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K filed October 3, 2011.
10.20	Exclusive License Agreement between Power 3 Medical Products, Inc. and the Company dated January 18, 2012. Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed January 30, 2012
10.21	Convertible Promissory Note issued November 14, 2012 to Dominion Capital, LLC Incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed on November 14, 2012.
10.22	Exclusive License Agreement, effective December 14th, 2012, by and between Amarantus Biosciences and Memory Dx, LLC. Incorporated by reference to Current Report on Form 8-K filed December 12, 2012.
10.23	Bill of Sale, dated December 19, 2012, by and between Lowell T. Cage, as the chapter 7 Trustee for Power3 Medical Products, Inc. and Amarantus Biosciences, Inc. Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed December 26, 2012
10.24	Order Authorizing Sales of Intellectual Property Free and Clear of Liens, Claims and Encumbrances, dated December 17, 2012. Incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed December 26, 2012.
10.25	Copy of Letter of Intent between Amarantus BioScience, Inc. and Brewer Sports International, LLC dated as of December 28, 2012. Incorporated by reference to Current Report on Form 8-K filed December 31, 2012.
10.26	Amendment No 1 to Convertible Promissory Note issued to Dominion Capital, LLC. Incorporated by reference to Exhibit 10.32 to the Company's annual report on Form 10-K filed on April 18, 2013.
10.27	Amendment No. 2 to Convertible Promissory Note issued to Dominion Capital, LLC. Incorporated by reference to Exhibit 10.33 to the Company's annual report on Form 10-K filed on April 18, 2013.
10.28	Amended and Restated Convertible Promissory note - issued to Dominion Capital, LLC in the principal amount of $375,000. Incorporated by reference to Exhibit 10.34 to the Company's annual report on Form 10-K filed on April 18, 2013.
10.29	Securities Purchase Agreement dated September 3, 2013. Incorporated by reference to the Company's Form 8-K filed September 9, 2013.
10.30	Form of 8% Original Issue Discount Senior Convertible Debenture due September 6, 2014. Incorporated by reference to the Company's Form 8-K filed September 9, 2013.
10.31	Form of Registration Rights Agreement entered into in connection with the Securities Purchase. Incorporated by reference to the Company's Form 8-K filed September 9, 2013. Agreement dated September 3, 2013 and October 2, 2013 dated September 3, 2013
10.32	Form of Common Stock Purchase entered into in connection with the Securities Purchase Agreement dated September 3, 2013 and October 2, 2013 Warrant. Incorporated by reference to the Company's Form 8-K filed September 9, 2013.
10.33	Form of Subsidiary Guarantee entered into in connection with Securities Purchase Agreement dated September 3, 2013 and October 2, 2013. Incorporated by reference to the Company's Registration Statement on Form S-1 filed on December 2, 2013

10.34	Securities Purchase Agreement dated October 2, 2013. Incorporated by reference to the Company's Registration Statement on Form S-1 filed on December 2, 2013
10.35	Form of 8% Original Issue Discount Senior Convertible Debenture due October 2, 2014. Incorporated by reference to the Company's Registration Statement on Form S-1 filed on December 2, 2013
10.36	Amendment No. 1 to Registration Rights Agreement dated October 2, 2013. Incorporated by reference to the Company's Registration Statement on Form S-1 filed on December 2, 2013.
10.37	Option Agreement between the Company and the University of Miami dated November 27, 2013. Incorporated by reference to the Company's Annual Report on Form 10-K filed on April 21, 2014.
10.38	Exclusive License Agreement between the Company and the University of Massachusetts date December 12, 2013 Incorporated by reference to the Company's Annual Report on Form 10-K filed on April 21, 2014.
10.39	Demand Promissory Note issued to Dominion Capital LLC. Incorporated by reference to the Company's Annual Report on Form 10-K filed on April 21, 2014.
10.40	Option Agreement with the University of Massachusetts dated as of February 28, 2014. Incorporated by reference to the Company's Annual Report on Form 10-K filed on April 21, 2014.
10.41	Purchase Agreement, dated as of March 7, 2014, by and between the Company and Lincoln Park Capital Fund, LLC. Incorporated by reference to Exhibit 10.1 to the Company's current report on Form 8-K filed March 13, 2014.
10.42	Registration Rights Agreement dated as of March 7, 2014, by and between the Company and Lincoln Park Capital Fund, LLC. Incorporated by reference to Exhibit 10.2 to the Company's current report on Form 8-K filed March 13, 2014.
10.43	Asset Purchase Agreement between Amarantus Bioscience Holdings, Inc. and Memory DX, LLC dated as of April 29, 2014. Incorporated by reference to Exhibit 10.1 to the Company's quarterly report on Form 10-Q filed with the SEC on May 20, 2014.
10.44	Asset Purchase Agreement between Amarantus Bioscience Holdings, Inc. and Provista Diagnostics, Inc. entered into as of May 1, 2014. Incorporated by reference to Exhibit 10.2 to the Company's quarterly report on Form 10-Q filed with the SEC on May 20, 2014.
10.45	Employment Letter, entered into by and between Gerald E. Commissiong and Amarantus Bioscience Holdings, Inc. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on October 10, 2014.
10.46	Form of Securities Purchase Agreement. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on November 14, 2014.
10.47	Option Agreement, dated November 7, 2014, by and between Amarantus Bioscience Holdings, Inc. and Lonza Walkersville. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on November 17, 2014.
10.48	Asset Purchase Agreement, dated November 7, 2014, by and among Amarantus Bioscience Holdings, Inc., Regenicin, Inc., Clark Corporate Law Group, LLP, and Gordon & Rees, LLP. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on November 17, 2014.
10.49	Consulting Agreement, dated November 1, 2014, by and between Amarantus Bioscience Holdings, Inc. and NeuroAssets SARL. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on November 24, 2014.
10.50	First Amendment to Option Agreement by and between Lonza Walkersville, Inc. and Amarantus Bioscience Holdings, Inc. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on January 12, 2015.
10.51	Offer Letter to Dr. John W. Commissiong dated December 31, 2014. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on January 12, 2015.
10.52	Amendment to Asset Purchase Agreement by and among Regenicin, Inc., Clark Corporate Law Group, LLP, and Amarantus Bioscience Holdings, Inc.
10.53	Second Amendment to Option Agreement by and between Lonza Walkersville, Inc. and Amarantus Bioscience Holdings, Inc.
21.1*	List of Subsidiaries.
23.1*	Consent of Marcum LLP
31.1*	Certification of Chief Executive Officer pursuant to Rule 13a-14 of the Securities Exchange Act of 1934
31.2*	Certification of Chief Financial Officer pursuant to Rule 13a-14 of the Securities Exchange Act of 1934
32.1*	Certification of Chief Executive Officer pursuant to Section 1350
32.2*	Certification of Chief Financial Officer pursuant to Section 1350
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase
101.DEF*	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase

* Filed herewith.

SIGNATURES

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

AMARANTUS BIOSCIENCE HOLDINGS, INC.

Date: May 16, 2016

By: */s/ Gerald E. Commissiong*
Name: Gerald E. Commissiong
Title: Chief Executive Officer
(Principal Executive Officer)

Date: May 16, 2016

By: */s/ Robert Farrell*
Name: Robert Farrell
Title: Chief Financial Officer
(Principal Financial and Accounting Officer)

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Position	Date
/s/ Gerald E. Commissiong Gerald E. Commissiong	Chief Executive Officer (Principal Executive Officer), President, Director	May 16, 2016
/s/ Robert Farrell Robert Farrell	Chief Financial Officer (Principal Financial and Accounting Officer)	May 16, 2016
/s/ John W. Commissiong John W. Commissiong	Chief Scientific Officer, Director	May 16, 2016
/s/ Robert L. Harris Robert L. Harris	Director	May 16, 2016
/s/ Donald Huffman Donald Huffman	Director	May 16, 2016
/s/ Joseph Rubinfeld Joseph Rubinfeld	Director	May 16, 2016

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee of the
Board of Directors and Shareholders
of Amarantus Bioscience Holdings, Inc.

We have audited the accompanying consolidated balance sheets of Amarantus Bioscience Holdings, Inc. (the "Company") as of December 31, 2015 and 2014, and the related consolidated statements of operations, changes in stockholders' equity (deficit) and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit 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 consolidated financial position of Amarantus Bioscience Holdings, Inc., as of December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the years then ended in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered substantial losses from operations and has negative working capital. These matters raise substantial doubt about the Company's ability to continue as a going concern. Management's plans concerning these matters are also discussed in Note 2 to the consolidated financial statements. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Marcum LLP

Marcum LLP
New York, NY
May 16, 2016

Amarantus Bioscience Holdings, Inc.
Consolidated Balance Sheets
(in thousands, except share and per share data)

	December 31, 2015	December 31, 2014
ASSETS		
Current assets:		
Cash and cash equivalents	$ 176	$ 214
Deferred financing fees	85	-
Prepaid expenses and other current assets	567	402
Total current assets	828	616
Non-current assets:		
Property and equipment, net	115	145
Intangible assets	2,861	1,497
Goodwill	7,967	-
Total non-current assets	10,943	1,642
TOTAL ASSETS	**$ 11,771**	**$ 2,258**
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable and accrued liabilities	$ 7,723	$ 3,502
Accounts payable - Regenicin	-	2,550
Related party liabilities and accrued interest	257	252
Accrued interest	195	25
Notes payable	1,000	-
Senior secured convertible notes payable, net of discount $3,854	1,398	-
Derivative and warrant liability	5,098	-
Share-settled debt	521	-
Total current liabilities	16,192	6,329
Deferred tax liability	1,113	-
Total liabilities	17,305	6,329
Series H, $1,000 stated value; 10,000 shares designated; 2,816 and 0 issued and outstanding as of December 31, 2015 and December 31, 2014, respectively; aggregate liquidation preference of $3,154	3,154	-
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' EQUITY (DEFICIT):		
Convertible preferred stock, $0.001 par value, 10,000,000 shares authorized:		
Series A, $0.001 par value, 250,000 shares designated, -0- shares issued and outstanding as of December 31, 2015 and December 31, 2014	-	-
Series B, $0.001 par value, 3,000,000 shares designated, -0- shares issued and outstanding as of December 31, 2015 and December 31, 2014	-	-
Series C, $0.001 par value, 750,000 shares designated, 750,000 shares issued and outstanding as of December 31, 2015 and December 31, 2014	1	1
Series D, $1,000 stated value; 1,300 shares designated; 0 and 1,299 issued and outstanding as of December 31, 2015 and December 31, 2014, respectively	-	1,169
Series E, $1,000 stated value; 13,335 shares designated, 9,766 and 4,500 issued and outstanding as of December 31, 2015 and December 31, 2014 respectively; aggregate liquidation preference of $12,480	8,764	4,050
Series G, $5,000 stated value; 10,000 shares designated; 0 shares issued and outstanding as of December 31, 2015 and December 31, 2014, respectively.	-	-
Common stock, $0.001 par value, 35,000,000 authorized; 21,177,353 and 5,615,000 shares issued and outstanding at December 31, 2015 and December 31, 2014, respectively	21	6
Additional paid-in capital	74,767	45,886
Accumulated deficit	(92,241)	(55,183)
Total stockholders' equity (deficit)	(8,688)	(4,071)
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT) AND TEMPORARY EQUITY	**$ 11,771**	**$ 2,258**

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

Amarantus Bioscience Holdings, Inc.
Consolidated Statements of Operations
(in thousands, except share and per share data)

	For the years ended December 31,	
	2015	**2014**
Net revenues:	$ -	$ -
Operating expenses:		
Research and development	13,256	13,762
General and administrative	11,565	7,592
Total operating costs and expenses	24,821	21,354
Loss from operations	(24,821)	(21,354)
Other income (expense):		
Interest expense	(2,228)	(813)
Loss on issuance of common stock	-	(260)
Loss on issuance of warrants	-	(3,867)
Loss on extinguishment of convertible debt	(1,296)	(1,250)
Loss on issuance of senior secured convertible promissory notes	(1,645)	-
Change in fair value of warrants & derivatives liabilities	4,105	317
Change in fair value of share-settled debt	(246)	-
Change in fair value of earn-out liability	917	-
Other expense	-	(50)
Total other income (expense)	(393)	(5,923)
Net loss	(25,214)	(27,277)
Dividends declared on preferred stock	(3,595)	(875)
Deemed dividends on convertible preferred stock	(8,249)	-
Net loss applicable to common stockholders	$ (37,058)	$ (28,152)
Net loss per share applicable to common stockholders - basic and diluted	$ (4.17)	$ (5.71)
Weighted average shares used in computing basic and diluted loss per share	8,877,924	4,926,338

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

Amarantus Bioscience Holdings, Inc.
Consolidated Statements of Stockholders' Equity (Deficit)
(in thousands, except share and per share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Total Stockholders' Equity
	Shares	Par value	Shares	Par value	Capital	Deficit	(Deficit)
Balances as of January 1, 2014	**750,000**	**$ 1**	**3,827,813**	**$ 4**	**$ 19,508**	**$ (27,032)**	**$ (7,519)**
Common stock issued for services	-	-	50,971	-	663	-	663
Common stock issued to acquire intangible assets	-	-	36,667	-	354	-	354
Common stock issued to acquire in-process research and development	-	-	250,000	-	3,000	-	3,000
Common stock issued in settlement of accounts payable	-	-	5,357	-	68	-	68
Common stock issued in private placement	-	-	200,274	-	3,074	-	3,074
Common stock issued in consideration of commitment fees for equity financing	-	-	43,120	-	516	-	516
Deferred commitment fee for equity financing reclassified upon stock issuance	-	-	-	-	(518)	-	(518)
Common stock issued upon conversion of 8% convertible debentures, including accrued interest	-	-	576,489	1	8,422	-	8,423
Common stock issued upon conversion of convertible promissory notes, including accrued interest	-	-	46,252	-	130	-	130
Common stock issued for extension of maturity of demand promissory note payable	-	-	1,785	-	20	-	20
Common stock issued for Series D convertible preferred stock dividend	-	-	23,100	-	103	(103)	-
Loss on issuance of common stock	-	-	-	-	260	-	260
Common stock issued upon exercise of common stock warrants	-	-	552,777	1	4,974	-	4,975
Deferred funding costs charged to equity upon termination of advisory agreement	-	-	-	-	(190)	-	(190)
Loss on issuance of warrants	-	-	-	-	3,867	-	3,867
Series E convertible preferred stock issued, net of issue costs of $43	3,944	3,550	-	-	(43)	-	3,507
Series E convertible preferred stock issued to retire demand promissory note	556	500	-	-	-	-	500
Series E convertible preferred stock deemed dividend from beneficial conversion feature	-	-	-	-	376	(376)	-
Series D convertible preferred stock deemed dividend from beneficial conversion feature	-	330	-	-	-	(330)	-
Series D convertible preferred stock reclassified to stockholders' equity (deficit)	1,299	839	-	-	-	-	839
Series E convertible preferred stock dividend accrued at period end	-	-	-	-	-	(65)	(65)
Stock-based compensation expense	-	-	-	-	1,302	-	1,302
Net loss	-	-	-	-	-	(27,277)	(27,277)

Balances as of December 31, 2014	**755,799**	**5,220**	**5,614,605**	**6**	**45,886**	**(55,183)**	**(4,071)**
Sale of Series E convertible preferred stock	5,250	4,725	-	-	-	-	4,725
Sale of Series G convertible preferred stock	1,622	6,950	-	-	-	-	6,950
Proceeds from issuance of common stock	-	-	273,003	-	2,883	-	2,883
Common stock issued for acquisition of Diogenix	-	-	662,526	1	7,950	-	7,951
Beneficial conversion feature of Series E convertible preferred stock adjustment due to rice reset from $7.50 to $4.50	-	-	-	-	2,835	(2,835)	-
Deemed dividends related to immediate accretion of beneficial conversion feature of Series E convertible preferred stock	-	-	-	-	490	(490)	-
Beneficial conversion feature of Series H convertible preferred stock	-	-	-	-	1,260	-	1,260
Deemed dividends related to immediate accretion of beneficial conversion feature of Series H convertible preferred stock	-	-	-	-	-	(1,260)	(1,260)
Deemed dividend on conversion of Series H convertible preferred stock to common stock	-	-	-	-	-	(1,301)	(1,301)
Deemed dividend related to accretion of redemption value of Series H convertible preferred stock	-	-	-	-	-	(2,363)	(2,363)
Common stock issued for note conversion	-	-	3,415,574	3	1,656	-	1,659
Common stock issued for Series D convertible preferred stock quarterly dividend	-	-	30,349	-	60	-	60
Common stock issued for Series E convertible preferred stock quarterly dividend	-	-	1,003,433	1	1,032	-	1,033
Common stock issued for Series G convertible preferred stock quarterly dividend	-	-	1,452,400	1	2,086	-	2,087
Common stock issued for Series H convertible preferred stock quarterly dividend	-	-	555,163	1	212	-	213
Note payable converted to Series E convertible preferred stock	766	689	-	-	-	-	689
Cancellation of Series G	-	-	(212,087)	-	-	-	-
Legal fees related to stock financing	-	-	-	-	(293)	-	(293)
Common stock issued in conversion of Series D convertible preferred stock	(1,299)	(1,169)	288,740	-	1,169	-	-
Common stock issued in conversion of Series E convertible preferred stock	(750)	(700)	1,501,112	1	699	-	-
Common stock issued in conversion of Series G convertible preferred stock	(1,622)	(1,810)	201,112	-	1,810	-	-
Purchase of Series G convertible preferred stock, net of conversion portion	-	(5,140)	-	-	390	-	(4,750)
Common stock issued in conversion of Series H convertible preferred stock			5,854,804	6	1,766	-	1,772
Common stock issued as fee for debt financing arrangement	-	-	10,200	-	116	-	116
Series D dividend accrued	-	-	-	-	-	(34)	(34)
Series E dividend accrued	-	-	-	-	-	(1,261)	(1,261)
Series G dividend accrued	-	-	-	-	-	(2,087)	(2,087)
Series H dividend accrued	-	-	-	-	-	(213)	(213)

Common stock issued for services	-	-	526,388	1	690	-	691
Nerverda Warrant Liability	-	-	-	-	600	-	600
Stock-based compensation expense	-	-	-	-	1,470	-	1,470
Fractional shares issued on reverse split	-	-	31	-	-	-	-
Net loss	-	-	-	-	-	(25,214)	(25,214)
Balance as of December 31, 2015	**759,766**	**$ 8,765**	**21,177,353**	**$ 21**	**$ 74,767**	**$ (92,241)**	**$ (8,688)**

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

Amarantus Bioscience Holdings, Inc.
Consolidated Statements of Cash Flows
(in thousands, except share and per share data)

	For the years ended December 31,	
	2015	**2014**
Cash flows from operating activities		
Net loss	$ (25,214)	$ (27,277)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation and amortization	80	35
Amortization of debt discount	1,298	582
Amortization of deferred financing fees	182	223
Amortization of intangible assets	96	118
Research and development licenses and patent acquired, expensed	5,401	-
Common stock issued for services	691	663
Common stock issued to acquire in-process research and development	-	3,000
Convertible notes issued for services	50	-
Write-off of clinical material	-	500
Impairment of investment	-	50
Loss on common stock issuance	-	260
Loss on issuance of senior secured convertible promissory notes	1,645	-
Loss on warrant issuance	-	3,867
Loss on extinguishment of convertible debt	1,296	1,250
Non-cash interest expense related to demand promissory note, warrants and derivative	216	52
Change in fair value of warrants and derivative liability	(4,105)	(317)
Change in fair value of share-settled debt	246	-
Change in fair value of earn-out liability	(917)	-
Stock-based compensation expense	1,470	1,302
Changes in assets and liabilities:		
Deferred financing fees	(151)	-
Prepaid expenses and other current assets	(152)	(92)
Accounts payable and accrued expenses	1,469	4,645
Related party liabilities and accrued interest	5	3
Accrued interest	380	(195)
Net cash used in operating activities	(16,014)	(11,331)
Cash flows from investing activities		
Restricted cash	-	(204)
Acquisition of DioGenix, Inc, net of non-cash portion	(900)	-
Investment	-	(50)
Purchase of research and development patent	(4,000)	-
Acquisition of property and equipment	(10)	(181)
Acquisition other assets	-	(1,100)
Net cash used in investing activities	(4,910)	(1,535)
Cash flows from financing activities		
Proceeds from notes payable	4,605	500
Proceeds from senior secured convertible promissory notes	2,850	-
Proceeds from share-settled debt	225	
Sale of Series E convertible preferred stock	4,725	3,550
Sale of Series G convertible preferred stock	6,950	-
Sale of Series H convertible preferred stock	3,796	-
Purchase of Series G convertible preferred stock	(4,750)	-
Repayment of promissory notes	(105)	(9)
Legal fees related to stock financing	(293)	(43)
Proceeds from issuance of common stock	2,883	3,074
Proceeds from exercise of warrants	-	4,975
Net cash provided by financing activities	20,886	12,047
Net decrease in cash and cash equivalents	(38)	(819)
Cash and cash equivalents, beginning of the year	214	1,033
Cash and cash equivalents, end of period	$ 176	$ 214

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

Amarantus Bioscience Holdings, Inc.
Consolidated Statements of Cash Flows
(in thousands, except share and per share data)

	For the years ended December 31,	
	2015	**2014**
Supplemental schedule of non-cash investing and financing activities:		
Acquisition of DioGenix, Inc		
Prepaid expenses and other current assets	$ (13)	$ -
Property and equipment, net	$ (40)	$ -
Intangible assets	$ (1,961)	$ -
goodwill	$ (7,967)	$ -
Earn-out liability	$ 917	$ -
Deferred tax liability	$ 1,113	$ -
Common stock issued for acquisition of Diogenix	$ 7,951	$ -
8% senior convertible debentures and accrued interest, net of unamortized debt discount and associated derivative liability converted to common stock	$ -	$ 7,091
Debt discount associated with convertible promissory note - derivative liability	$ 3,720	$ -
Issuance of warrants at fair value related to convertible debt	$ 3,096	$ -
Warrant liability limitations adjustment	$ 1,045	$ -
Fair Value of common stock warrant issued with Series H convertible preferred stock	$ 2,534	$ -
Beneficial conversion feature of Series H convertible preferred stock	$ 1,260	$ -
Deemed dividends related to immediate accretion of beneficial conversion feature of Series H convertible preferred stock	$ 1,260	$ -
Deemed dividend on conversion of Series H convertible preferred stock to common stock	$ 1,301	$ -
Deemed dividend related to accretion of redemption value of Series H convertible preferred stock	$ 2,363	$ -
Deemed dividends related to immediate accretion of beneficial conversion feature of Series E convertible preferred stock	$ 490	$ -
Beneficial conversion feature of Series E convertible preferred stock adjustment due to rice reset from $7.50 to $4.50	$ 2,835	$ -
Common stock issued as fee for debt financing arrangement	$ 116	$ -
Common stock issued for Series D convertible preferred stock quarterly dividend	$ 60	$ -
Common stock issued for Series E convertible preferred stock quarterly dividend	$ 1,033	$ -
Common stock issued for Series G convertible preferred stock quarterly dividend	$ 2,087	$ -
Common stock issued for Series H convertible preferred stock quarterly dividend	$ 213	$ -
Common stock issued in conversion of Series D convertible preferred stock	$ 1,169	$ -
Common stock issued in conversion of Series E convertible preferred stock	$ 700	$ 104
Common stock issued in conversion of Series G convertible preferred stock	$ 1,810	$ -
Common stock issued in conversion of Series H convertible preferred stock	$ 1,772	$ -
Common stock issued for note conversion	$ 1,659	$ 130
Series D dividend accrued	$ 34	$ -
Series E dividend accrued	$ 1,261	$ 65
Series G dividend accrued	$ 2,087	$ -
Series H dividend accrued	$ 213	$ -
Common stock issued in consideration of commitment fees for equity financing	$ -	$ 516
Common stock issued to acquire intangible assets	$ -	$ 354
Common stock issued in settlement of accounts payable	$ -	$ 68
Exchange of notes payable for senior secured convertible debt	$ 3,021	$ -
Note payable converted to Series E convertible preferred stock	$ 689	$ 500

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

Amarantus Bioscience Holdings, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. General

Amarantus Bioscience Holdings, Inc. (”the Company”) is a California based biopharmaceutical company founded in January 2008. The Company owns or have exclusive licenses to various product candidates in the biopharmaceutical and diagnostic areas of the healthcare industry. The Company is developing a diagnostic product candidates in the field of neurology, and therapeutic product candidates in the areas of neurology, psychiatry, ophthalmology and regenerative medicine. The Company’s business model is to develop product candidates through various de-risking milestones that will be accretive to shareholder value, and will strategically partner with pharmaceutical companies, diagnostic companies and/or other stakeholders in order to more efficiently achieve regulatory approval and commercialization.

The Company has three operating divisions: the diagnostics division; the therapeutics division; and the drug discovery division.

Reverse Stock Split

On May 2, 2015, the Company’s Board of Directors and stockholders approved a 1-for-150 reverse stock split of the Company’s authorized, issued and outstanding common stock. The reverse stock split became effective on June 10, 2015. Upon the effectiveness of the reverse stock split, (i) every one hundred and fifty shares of outstanding common stock was combined into one share of common stock, (ii) the number of shares of common stock into which each outstanding warrant or option to purchase common stock is exercisable was proportionally decreased, (iii) the exercise price of each outstanding warrant or option to purchase common stock was proportionately increased, and (iv) the conversion ratio for each share of preferred stock outstanding was proportionately reduced.

Unless otherwise indicated, all of the share numbers, share prices and exercise prices in these consolidated financial statements have been adjusted, on a retroactive basis, to reflect this 1-for-150 reverse stock split.

2. Liquidity and Going Concern

The Company’s activities since inception have consisted principally of acquiring product and technology rights, raising capital, and performing research and development. Successful completion of the Company’s development programs and, ultimately, the attainment of profitable operations are dependent on future events, including, among other things, its ability to access potential markets; secure financing, develop a customer base; attract, retain and motivate qualified personnel; and develop strategic alliances. From inception, the Company has been funded by a combination of equity and debt financings. Although management believes that the Company will be able to successfully fund its operations, there can be no assurance that the Company will be able to do so or that the Company will ever operate profitably. The Company’s activities since inception have consisted principally of acquiring product and technology rights, raising capital, and performing research and development. Historically, we have incurred net losses and negative cash flows from operations.

The Company expects to continue to incur substantial losses over the next several years during its development phase. To fully execute its business plan, the Company will need to complete certain research and development activities and clinical studies. Further, the Company’s product candidates will require regulatory approval prior to commercialization. These activities may span many years and require substantial expenditures to complete and may ultimately be unsuccessful. Any delays in completing these activities could adversely impact the Company. The Company plans to meet its capital requirements primarily through issuances of debt and equity securities and, in the longer term, revenue from product sales.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”), which contemplate continuation of the Company as a going concern. Historically, the Company has incurred net losses and negative cash flows from operations. The Company believes its current capital resources are not sufficient to support its operations. Management intends to continue its research efforts and to finance operations of the Company through debt and/or equity financings. Management plans to seek additional debt and/or equity financing through private or public offerings or through a business combination or strategic partnership. There can be no assurance that the Company will be successful in obtaining additional financing on favorable terms, or at all. These matters raise substantial doubt about the Company’s ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of these uncertainties.

3. Significant Accounting Policies

Principles of Consolidation - The consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated.

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.

Use of Estimates - The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of expenses during the reporting period. Significant estimates include the fair value of derivatives, the fair value of stock-based compensation and warrants, the carrying value of intangible assets (patents and licenses), valuation allowance against deferred tax assets, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Certain Significant Risks and Uncertainties - The Company participates in a global, dynamic, and highly competitive industry and believes that changes in any of the following areas could have a material adverse effect on the Company's future financial position, results of operations, or cash flows: ability to obtain future financing; advances and trends in new technologies and industry standards; regulatory approval and market acceptance of the Company's products; development of the necessary manufacturing capabilities and the Company's ability to obtain adequate resources of necessary materials; development of sales channels; certain strategic relationships; litigation or claims against the Company based on intellectual property, patent, product, regulatory, or other factors; and the Company's ability to attract and retain employees and other resources necessary to support its growth.

Concentration of Credit Risk - Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash and cash equivalents. The Company places its cash and cash equivalents with domestic financial institutions that are federally insured within statutory limits.

Cash and Cash Equivalents - The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Property and Equipment - Property and equipment are stated at cost and depreciated on a straight-line basis over the estimated useful lives as follows:

Equipment	3 years
Computer equipment	2 years
Furniture and fixtures	3 years

Accounting for Business Combinations - Business combinations are accounted for under the acquisition method of accounting. This method requires the recording of acquired assets, including separately identifiable intangible assets, and assumed liabilities at their acquisition date fair values. The method records any excess purchase price over the fair value of acquired net assets as goodwill. The determination of the fair value of assets acquired, liabilities assumed involves assessments of factors such as the expected future cash flows associated with individual assets and liabilities and appropriate discount rates at the closing date of the acquisition. When necessary, external advisors are consulted to help determine fair value. For non-observable market values, fair values are determined using acceptable valuation principles (e.g., multiple excess earnings, relief from royalty and cost methods, discounted cash flows).

Contingent consideration assumed in a business combination is remeasured at fair value each reporting period and any change in the fair value from either the passage of time or events occurring after the acquisition date, is recorded in results from operations.

The results of operations are included from the acquisition date in the financial statements for all businesses acquired.

Goodwill and Other Identifiable Intangibles - Goodwill is the excess of purchase price over the fair value of identified net assets of businesses acquired. The Company's intangible assets with an indefinite life are related to in-process research and development ("IPR&D") programs acquired, as the Company expects future research and development on these programs to provide the Company with substantial benefit for a period that extends beyond the foreseeable horizon. Intangible assets with indefinite useful lives are measured at their respective fair values as of the acquisition date. The Company does not amortize goodwill and intangible assets with indefinite useful lives. Intangible assets related to IPR&D projects are considered to be indefinite lived until the completion or abandonment of the associated R&D efforts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite lived and would then be amortized based on their respective estimated useful lives at that point in time.

The Company estimates the fair value of the reporting unit using a market approach in combination with a discounted operating cash flow approach. Impairment of goodwill is measured as the excess of the carrying amount of goodwill over the fair values of recognized and unrecognized assets and liabilities of the reporting unit. An adjustment to goodwill will be recorded for any goodwill that is determined to be impaired. The Company tests goodwill for impairment at least annually in conjunction with the preparation of its annual business plan, or more frequently if events or circumstances indicate it might be impaired. For reporting units with zero or negative carrying amounts, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. In determining whether it is more likely than not that goodwill impairment exists, an entity should consider whether there are any adverse qualitative factors indicating that impairment may exist.

As of December 31, 2015, the Company performed a quantitative goodwill impairment test and determined that goodwill was not impaired.

Impairment of Long-Lived Assets - The Company monitors the carrying value of long-lived assets for potential impairment and tests the recoverability of such assets whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. If a change in circumstance occurs, the Company performs a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. If cash flows cannot be separately and independently identified for a single asset, the Company will determine whether impairment has occurred for the group of assets for which the Company can identify the projected cash flows. If the carrying values are in excess of discounted expected future cash flows, the Company measures any impairment by comparing the fair value of the asset or asset group to its carrying value. Due to the significant decline in the Company's stock price, the Company determined it was necessary to test its intangible assets for impairment during the fourth quarter of 2015. The Company used the sale of its Diagnostic unit subsequent to December 31, 2015 as a significant transaction to determine if the carrying value of the intangible assets were impaired. Based on the fair value of the common stock received, it was concluded that the fair value exceeded the carrying value and no impairment was necessary.

Research and Development Expenditures - Research and development costs are expensed as incurred. Research and development costs include salaries and personnel-related costs, consulting fees, fees paid for contract research services, fees paid to clinical research organizations and other third parties associated with clinical trials, the costs of laboratory equipment and facilities, and other external costs. The Company incurred $13.3 million and $13.8 million research and development costs for the years ended December 31, 2015 and 2014, respectively.

Fair Value of Financial Instruments - Accounting standards have been issued which define fair value, establishes a market-based framework or hierarchy for measuring fair value and expands disclosures about fair value measurements. The standard is applicable whenever another accounting pronouncement requires or permits assets and liabilities to be measured at fair value. The standard does not expand or require any new fair value measures; however its application may change current practice.

Fair value is defined under the standard as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. The standard also establishes a three-level hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value:

- *Level 1* - inputs to the valuation methodology are quoted prices (unadjusted) for an identical asset or liability in an active market
- *Level 2* - inputs to the valuation methodology include quoted prices for a similar asset or liability in an active market or model-derived valuations in which all significant inputs are observable for substantially the full term of the asset or liability.
- *Level 3* - inputs to the valuation methodology are unobservable and significant to the fair value measurement of the asset or liability

Stock-Based Compensation - Stock-based compensation is measured at the grant date based on the fair value of the award. The fair value of the award that is ultimately expected to vest is recognized as expense on a straight-line basis over the requisite service period, which is generally the vesting period. The expense recognized for the portion of the award that is expected to vest has been reduced by an estimated forfeiture rate. The forfeiture rate is determined at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Grant-date fair value is determined using the Black-Scholes option pricing model, which requires the use of the following assumptions:

Expected Term - The expected term represents the period that awards are expected to be outstanding based on the simplified method, which is the half-life from vesting to the end of its contractual term.

Expected Volatility - Stock price volatility is computed over expected terms based on the historical common stock trading price of the Company's common stock.

Risk-Free Interest Rate - The risk-free interest rate is estimated based upon the implied yield available on U.S. Treasury zero-coupon issues with an equivalent expected term.

Expected Dividend - Cash dividends have never been declared or paid on common shares and there are no plans to do so in the foreseeable future such that the expected dividend yield is assumed to be zero.

Forfeiture Rate - The forfeiture rate is based on historical data and managements estimates of failure rate to achieve vesting conditions. Forfeiture rates are adjusted as actual forfeitures differ from managements estimates for the awards that actually vest in the period of the change in estimate.

The fair value of stock options granted to nonemployees is recognized over the period in which the related services are received.

Debt Extinguishment - The Company accounts for the income or loss from extinguishment of debt by comparing the difference between the reacquisition price and the net carrying amount of the debt being extinguished should be recognized as gain or loss when the debt is extinguished. The gain or loss from debt extinguishment is recorded in the consolidated statements of operations under "other income (expense)" as loss from extinguishment of convertible debt.

Share-settled Debt – Share-settled debt may settle by providing the holder with a variable number of shares with an aggregate fair value equaling the debt principal outstanding. (In some cases, a discount to the fair value of the share price may be used to determine the number of shares to be delivered, resulting in settlement at a premium.) Share-settled debt was analyzed to determine that the share settled debt does not contain a beneficial conversion feature or contingent beneficial conversion feature. Share-settled debt is recorded at fair value.

Sequencing - As of October 2015, the Company adopted a sequencing policy whereby all future instruments may be classified as a derivative liability with the exception of instruments related to share-based compensation issued to employees or directors.

Preferred Stock - Preferred shares subject to mandatory redemption are classified as liability instruments and are measured at fair value. The Company classifies conditionally redeemable preferred shares, which includes preferred shares that feature redemption rights that are either within the control of the holder or subject to redemption upon the occurrence of uncertain events not solely within the Company's control, as temporary equity ('mezzanine') until such time as the conditions are removed or lapse.

Convertible Financial Instruments - The Company bifurcates conversion options from their host instruments and accounts for them as free standing derivative financial instruments if certain criteria are met. The criteria include circumstances in which (a) the economic characteristics and risks of the embedded derivative instrument are not clearly and closely related to the economic characteristics and risks of the host contract, (b) the hybrid instrument that embodies both the embedded derivative instrument and the host contract is not re-measured at fair value under otherwise applicable generally accepted accounting principles with changes in fair value reported in earnings as they occur and (c) a separate instrument with the same terms as the embedded derivative instrument would be considered a derivative instrument. An exception to this rule is when the host instrument is deemed to be conventional, as that term is described under applicable GAAP.

When the Company has determined that the embedded conversion options should not be bifurcated from their host instruments, discounts are recorded for the intrinsic value of conversion options embedded in the instruments based upon the differences between the fair value of the underlying common stock at the commitment date of the transaction and the effective conversion price embedded in the instrument. Deemed dividends are also recorded for the intrinsic value of conversion options embedded in preferred shares based upon the differences between the fair value of the underlying common stock at the commitment date of the transaction and the effective conversion price embedded in the preferred shares.

Common Stock Purchase Warrants and Derivative Financial Instruments - Common stock purchase warrants and other derivative financial instruments are classified as equity if the contracts (1) require physical settlement or net-share settlement or (2) give the Company a choice of net-cash settlement or settlement in its own shares (physical settlement or net-share settlement). Contracts which (1) require net-cash settlement (including a requirement to net cash settle the contract if an event occurs and if that event is outside the control of the Company), (2) give the counterparty a choice of net-cash settlement or settlement in shares (physical settlement or net-share settlement), or (3) that contain reset provisions that do not qualify for the scope exception are classified as equity or liabilities. The Company assesses classification of its common stock purchase warrants and other derivatives at each reporting date to determine whether a change in classification between equity and liabilities is required.

Debt Discounts - Debt discounts under these arrangements are amortized to interest expense using the interest method over the earlier of the term of the related debt or their earliest date of redemption.

Income Taxes - The Company accounts for income taxes using the liability method whereby deferred tax asset and liability account balances are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value.

In evaluating the ability to recover its deferred income tax assets, the Company considers all available positive and negative evidence, including its operating results, ongoing tax planning, and forecasts of future taxable income on a jurisdiction-by-jurisdiction basis. In the event the Company determines that it would be able to realize its deferred income tax assets in the future in excess of their net recorded amount, it would make an adjustment to the valuation allowance that would reduce the provision for income taxes. Conversely, in the event that all or part of the net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made.

Interest and penalties related to uncertain tax positions are recorded in the provision for income tax expense on the consolidated statements of operations.

Net Loss Per Common Shareholder - Basic loss per share is computed on the basis of the weighted average number of shares outstanding for the reporting period. Diluted loss per share is computed on the basis of the weighted average number of common shares (including redeemable shares) plus dilutive potential common shares outstanding using the treasury stock method. Any potentially dilutive securities are anti-dilutive due to the Company's net losses. For the years presented, there is no difference between the basic and diluted net loss per share.

Segments - The Company operates as one operating segment which reflect the manner in which performance was assessed by the Operating segment manager and, accordingly, no segment disclosures have been presented herein.

Subsequent Events - The Company has evaluates subsequent events up to the date of filing of its Annual Report on Form 10-K for the year ended December 31, 2015.

Adoption of Recent Accounting Pronouncements

In August 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-15, "Interest - Imputation of Interest: Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements", which clarifies the treatment of debt issuance costs from line-of-credit arrangements after the adoption of ASU No. 2015-03, "Interest - Imputation of Interest: Simplifying the Presentation of Debt Issuance Costs". In particular, ASU No. 2015-15 clarifies that the SEC staff would not object to an entity deferring and presenting debt issuance costs related to a line-of-credit arrangement as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of such arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The Company adopted ASU No. 2015-15 and its adoption did not have a material impact on the consolidated financial statements.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, "*Revenue from Contracts with Customers*", an updated standard on revenue recognition. ASU No. 2014-09 provides enhancements to the quality and consistency of how revenue is reported by companies while also improving comparability in the financial statements of companies reporting using International Financial Reporting Standards or U.S. GAAP. The main purpose of the new standard is for companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which a company expects to be entitled in exchange for those goods or services. The new standard also will result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively and improve guidance for multiple-element arrangements. In July 2015, the FASB voted to approve a one-year deferral of the effective date of ASU No. 2014-09, which will be effective for the Company in the first quarter of fiscal year 2018 and may be applied on a full retrospective or modified retrospective approach. The Company is evaluating the impact of implementation and transition approach of this standard on its financial statements.

In August 2014, the FASB issued ASU No. 2014-15, " *Presentation of Financial Statements — Going Concern (Subtopic 205-40) — Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern"* , which provides guidance regarding management's responsibility to assess whether substantial doubt exists regarding the ability to continue as a going concern and to provide related footnote disclosures. In connection with preparing financial statements for each annual and interim reporting period, management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). This ASU is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. The Company is evaluating the new guidance and has not determined the impact this standard may have on its financial statements.

In November 2014, the FASB issued ASU No. 2014-16, Derivatives and Hedging ("ASU 2014-16"), which clarifies how current GAAP should be interpreted in evaluating the economic characteristics and risks of a host contract in a hybrid financial instrument that is issued in the form of a share. The amendments in this Update are effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. Early adoption, including adoption in an interim period, is permitted. The Update does not change the current criteria in GAAP for determining when separation of certain embedded derivative features in a hybrid financial instrument is required. The Company will adopt ASU 2014-16 on January 1, 2016 and does not believe the adoption of this ASU to have a material impact on the combined and consolidated financial statements.

ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*. ASU No. 2016-01 requires equity investments to be measured at fair value with changes in fair value recognized in net income; simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments; requires separate presentation of financial assets and financial liabilities by measurement category and form of financial assets on the balance sheet or the accompanying notes to the financial statements and clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. ASU No. 2016-01 is effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company is currently evaluating the impact that ASU No. 2016-01 will have on its financial statements and related disclosures.

ASU No. 2016-02, *Leases (Topic 842)* which supersedes FASB ASC Topic 840, *Leases (Topic 840)* provides principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than twelve months regardless of classification. Leases with a term of twelve months or less will be accounted for similar to existing guidance for operating leases. The standard is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted upon issuance. When adopted, the Company does not expect this guidance to have a material impact on the Company's financial statements.

4. Business Combinations

Acquisition of Diogenix, Inc.

On January 8, 2015, the Company acquired DioGenix, which owns a pipeline of diagnostic tests focused on immune-mediated neurological diseases, such as multiple sclerosis (MS). Its lead product, MSPrecise, can significantly expand a physician's ability to diagnose patients that exhibit unclear neurological dysfunction.

Consideration paid included 662,526 shares of Company stock valued at $12.00 per share and $0.9 million in cash for a total consideration of $8.9 million. In addition, the agreement provides for a contingent payment amount up to $2.0 million in cash and common stock of the Company should the acquired company achieve certain milestones related to results of clinical testing and future revenue from products in development. The fair value of the contingent consideration was estimated by applying the income approach. That measure is based on significant inputs that are not observable in the market (Level 3 inputs). Key assumptions include the discount rate of 30.4% and probability-adjusted potential outcomes.

Following an acquisition, there is a period of not more than twelve months from the closing date of the acquisition to finalize the acquisition date fair values of assets acquired and liabilities assumed, including valuations of identifiable intangible assets and property and equipment. The purchase price allocation was finalized on December 31, 2015. The determination of fair values of acquired intangible assets and property and equipment involves a variety of assumptions, including estimates associated with remaining useful lives.

The following unaudited supplemental pro forma information presents the financial results as if the Merger had occurred on January 1, 2014. This supplemental pro forma information has been prepared for comparative purposes and does not purport to be indicative of what would have occurred had the acquisition been made on January 1, 2014, nor is it indicative of any future results (amount in thousands):

	For the year end December 31, 2014
	(Unaudited)
Net Sales	$ -
Operating Expenses	23,335
Loss from operations	(23,335)
Total other expenses	(6,378)
Net Loss	(29,713)
Basic and diluted net loss per common share	$ (0.04)

The allocation of the purchase price to the Company's balance sheet is shown below (amount in thousands):

	January 8, 2015
Intangibles - Acquisition Diogenix (IPR&D)	$ 2,861
Prepaid expenses and other current assets	13
Property and equipment, net	40
Goodwill	7,967
Total assets	10,881
Earn-out liability	(917)
Deferred tax liability	(1,113)
Net assets acquired	$ 8,851

Goodwill represents expected synergies resulting from the combination of the entities and other intangible assets that do not qualify for separate recognition, while IPR&D assets represent ongoing projects obtained through the acquisition.

The transaction was accounted for using the acquisition method. Accordingly, goodwill has been measured as the excess of the total consideration over the amounts assigned to the identifiable assets acquired and liabilities assumed including the related deferred tax liability. Goodwill is not deductible for tax purposes.

5. Research and Development Licenses and Patent Acquired

The following table summarizes the Company's intangible assets (amount in thousands):

	As of December 31,	
	2015	2014
Intangibles - Acquisition Diogenix (IPR&D)	$ 2,861	$ -
Licenses	-	1,497
Total intangible assets	$ 2,861	$ 1,497

Acquisition of Diogenix

The Company tested its intangible assets for impairment during the fourth quarter of 2015 and determined that its intangible assets were not impaired.

Asset Acquired in Research and Development

On July 8, 2015, the Company exercised its previously disclosed option to acquire Intellectual property rights on the Engineered Skin Substitute for $4.0 million. Pursuant to the Agreement, the Company will be required to pay up to $5.0 million in aggregate milestone payments upon the achievement of certain regulatory milestones, none of which have currently been met.

Cost incurred in obtaining technology licenses are charged to research and development expense if the technology licensed has not reached commercial feasibility and has no alternative future use. Such licenses purchased by the Company require substantial completion of research and development, regulatory and marketing approval efforts in order to reach commercial feasibility and has no alternative future use. Accordingly, the total purchase price of $4.0 million for the licenses acquired during the period was reflected as research and development expenses on the Consolidated Statements of Operations for the year ended December 31, 2015.

Licenses

The Company concluded that there is no further alternative future use associated with the licensed assets and as such they were expensed to the statement of operations as research and development cost.

6. Notes Payable

$1.0 Million Notes Payable Securities Purchas Agreement

On July 9, 2015, the Company entered into a Securities Purchase Agreement with four investors to purchase an aggregate of $1.0 million in principal amount of 12% Promissory Notes (the "Notes Payable") due July 9, 2016. One Note Payable Investor, with $0.6 million in Notes Payable has the right to exchange the Notes Payable for 12% Senior Secured Convertible Notes at any time.

$0.6 million Conversion Feature

The conversion feature of the $0.6 million note was treated as an embedded conversion feature and bifurcated for financial statement purposes, as the terms were not indexed to the Company's stock.

The Notes Payable are currently in default.

Other miscellaneous debt agreements

During the years ended December 31, 2015, the Company entered into multiple note agreement (the "Notes") with multiple investors for an aggregate of $105,000 in principal. The notes were fully paid back as of December 31, 2015.

7. Senior Secured Convertible Promissory Notes

The following is a summary of outstanding senior secured convertible notes as of December 31, 2015 (amount in thousands):

	Issue Date	Maturity Date	Stated Interest Rate	Conversion Terms	Face Value	Remaining Debt Discount	Carrying Value
Delafield Investments Ltd	9/30/2015	9/29/2016	12%	$ 0.43	$ 3,056	$ (2,286)	$ 770
Dominion Capital LLC	9/30/2015	9/29/2016	12%	$ 0.43	2,096	(1,568)	528
US 1000 LLC	12/07/2015	12/6/2016	12%	N/A	100	-	100
Ending balance as of December 31, 2015					$ 5,252	$ (3,854)	$ 1,398

12% Senior Secured Convertible Promissory Note and Warrants

Delafield Notes

On September 30, 2015, the Company entered into a Securities Purchase Agreement (the "Notes SPA") with an institutional investor for the sale of an aggregate principal amount $3.1 million (including 10% OID) 12% Senior Secured Convertible Promissory Notes due September 29, 2016 (the "Delafield Notes") and a warrant to purchase 1,299,000 shares of common stock. The proceeds to the Company from the sale was $2.7 million.

Delafield Warrants

The warrants are exercisable after March 31, 2016 and terminate on the five-year anniversary of that date. The warrants had an initial exercise price of $2.00 per share. The warrants have an aggregate exercise provision that upon reset the amount of warrant coverage increases proportionally to the decrease in exercise price.

The terms of the warrants had reset provisions that precluded their inclusion as equity and was recorded as a warrant liability on the balance sheet.

As of December 31, 2015, the debt discount associated with Delafield Notes was $2.3 million, and expected to be amortized in 9 months.

Dominion Notes

On September 30, 2015, the Company entered into an exchange agreement with an institutional investor pursuant to which the Company exchanged $3.0 million (including OID and make-whole) Notes Payable previously issued in 2015, which included principal and accrued interest for a $3.0 million Senior Secured Convertible Promissory Note ("Dominion Note") and a common stock purchase warrant to purchase 1,299,000 with a $2.00 exercise price. The warrants have an aggregate exercise provision that upon reset the amount of warrant coverage increases proportionally to the decrease in exercise price.

The terms of the warrants had reset provisions that precluded their inclusion as equity and was recorded as a warrant liability on the balance sheet.

Conversion of Dominion Notes

During the quarter ended December 31, 2015, the Company entered into a conversion agreement with the investor to covert an aggregate amount of $0.9 million of the Dominion Notes to 3,415,574 shares of common stock. The Company recognized a loss on extinguishment of $1.3 million from the conversion of convertible debt with a bifurcated conversion option, which included the write-off of $0.4 million of derivative liability, $0.9 million in debt discount and fair value of the common shares issued of $1.7 million.

As of December 31, 2015, the debt discount associated with Dominion Notes was $1.6 million, and expected to be amortized in 9 months.

Senior Secured Convertible Promissory Notes - Interest Terms

The principal amount of the Dominion Notes and Delafield Notes ("Senior Secured Notes") shall accrue interest at a rate equal to 12% per annum, payable on the Maturity Date in cash, or, at the Company's option, in common stock or a combination thereof. At any time upon five (5) days written notice to the Investor, the Company may prepay any portion of the principal amount of the Senior Secured Notes and any accrued and unpaid interest at an amount equal to 120% of the then outstanding principal amount of the Senior Secured Notes and accrued interest or 130% if a Qualified Financing (as defined in the Senior Secured Notes) has occurred.

Senior Secured Convertible Promissory Notes - Security interest

In connection with the issuance of the Senior Secured Notes, the Company granted a security interest in all of its assets to the note holders.

Senior Secured Convertible Promissory Notes - Events of Default

The Senior Secured Notes contain certain customary Events of Default (including, but not limited to, default in payment of principal or interest thereunder, breaches of covenants, agreements, representations or warranties thereunder, the occurrence of an event of default under certain material contracts of the Company, including the transaction documents relating to the PP Offering, changes in control of the Company, filing of bankruptcy and the entering or filing of certain monetary judgments against the Company). Upon the occurrence of any such Event of Default the outstanding principal amount of the Senior Secured Notes, plus accrued but unpaid interest, liquidated damages, and other amounts owing in respect thereof through the date of acceleration, shall become, at the Investor's election, immediately due and payable in cash. Upon any Event of Default that results in acceleration of the Senior Secured Notes, the interest rate on the Senior Secured Notes shall accrue at an interest rate equal to the lesser of 24% per annum or the maximum rate permitted under applicable law.

The Company is currently in default with all Senior Secured Notes.

Senior Secured Convertible Promissory Notes - Conversion Features

At any time after the issuance date of the Senior Secured Notes until all amounts due have been paid in full, the Senior Secured Note shall be convertible, in whole or in part, into shares of common stock at the option of the holder, at any time and from time to time. The conversion price in effect on any conversion date shall be equal to the lowest of (i) $2.50, (ii) 75% of the lowest daily VWAP in the fifteen (15) trading days prior to the conversion date, or (iii) (A) if a Public Offering (as defined in the Senior Secured Note) that is not a Qualified

Public Offering (as defined in the Senior Secured Note) has occurred, 75% or (B) if a Qualified Public Offering has occurred, 80% of the lowest of the (x) per share price of shares of common stock, and (y) the lowest conversion price, exercise price or exchange price of any common stock equivalents, that are sold or issued to the public in the Public Offering or the Qualified Public Offering, respectively.

The conversion features of the notes were bifurcated from the host instrument as its conversion terms were not indexed to the company's own stock. In addition, the warrants associated with the debt instruments were also treated as a free standing derivative liability. The total fair value of the embedded conversion feature and the warrants exceeded the net proceeds received and resulted in a loss on issuance of $1,045.

Other Convertible Notes Payable

On July 1, 2015, the Company entered into a Securities Purchase Agreement with an institutional investor (the "Investor") pursuant to which such Investor purchased an aggregate of $0.6 million in principal amount of 12% Convertible Promissory Notes (the "Notes") due April 2, 2016. This note was shortly thereafter converted into 766 shares of Series E Convertible Preferred Stock with a 10% OID discount.

On December 7, 2015, the Company entered into a Securities Purchase Agreement with an institutional investor (the "Investor") pursuant to which such Investor purchased an aggregate of $100,000 in principal amount of Convertible Promissory Notes.

8. Share-settled Debt

On August 27, 2015, the Company entered into a Securities Purchase Agreement with an institutional investor pursuant to which such Investor purchased an aggregate of $75,000 in principal amount of 20% Convertible Promissory Notes due February 24, 2016. The conversion price is 55% of the lowest VWAP of the prior 5 trading days.

On October 14, 2015, the Company entered into a Securities Purchase Agreement with an institutional investor pursuant to which such Investor purchased an aggregate of $150,000 in principal amount of 15% Promissory Notes due November 4, 2016. The conversion price is 55% of the lowest VWAP of the prior 5 trading days.

On November 20, 2015, the Company issued a convertible promissory note in principal amount of $50,000 to a vendor in exchange for its services. The conversion price is 50% of the average of the lowest 3 closing prices for 10 trading days prior to but not including the conversion date

These three convertible notes (the "Notes") settle by providing the holder with a variable number of the Company's shares with an aggregate fair value determined by reference to the debt principal outstanding. Because the value that the holder receives at settlement does not vary with the value of the Company's equity shares, the settlement provision is not considered a conversion option for financial accounting purposes. Rather, these Notes are recognized as share-settled debt at fair value. During 2015, the Company recorded $0.2 million change in fair value of the Notes.

The share-settled debt is currently in default.

9. Fair Value Measurements

The Company's financial assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2015 by level within the fair value hierarchy, are as follows:

	Fair value measured at December 31, 2015			
	Fair value at December 31, 2015	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Derivative liability	$ -	$ -	$ 2,073	$ 2,073
Warrant liability	-	-	3,025	3,025
Share-settled debt	-	-	521	521
Total fair value	$ -	$ -	$ 5,619	$ 5,619

There were no transfers between Level 1, 2 or 3 during the years ended December 31, 2015 and 2014.

The following table presents additional information about Level 3 liabilities measured at fair value. Both observable and unobservable inputs may be used to determine the fair value of positions that the Company has classified within the Level 3 category. As a result, the unrealized gains and losses for assets and liabilities within the Level 3 category may include changes in fair value that were attributable to both observable (e.g., changes in market interest rates) and unobservable (e.g., changes in unobservable long-dated volatilities) inputs.

Changes in Level 3 liabilities measured at fair value for the period ended December 31, 2015 and December 31, 2014 were as follows (dollars in thousands):

	Warrant Liability	Earn-out Liability	Embedded Conversion Feature	Share-settled Debt	Total
January 1, 2014	$ -		$ 5,859	$ -	$ 5,859
Conversion of 8% senior convertible debentures to common stock	-		(5,542)	-	(5,542)
Change in fair value	-		(317)	-	(317)
December 31, 2014	-		-	-	-
Issuance of convertible notes	-		3,936	-	3,936
Issuance of share-settled debt	-		-	275	275
Addition of earn-out liability		917			917
Issuance of warrants	5,631		-	-	5,631
Conversion of 8% senior convertible debentures to common stock	-		(363)	-	(363)
Change in fair value	(2,606)	(917)	(1,500)	246	(4,777)
December 31, 2015	$ 3,025	-	$ 2,073	$ 521	$ 5,619

The fair value of contingent earn-out liability was determined using discounted cash flow models for multiple revenue scenarios. To calculate the fair value of the contingent liability, the probability of the discounted fair value of each scenario was weighted. As of December 31, 2015, the Company determined that the fair value of the earn-out liability was $0.

The Company's warrant liabilities, derivative liabilities and share-settled debt are measured at fair value using the Monte Carlo simulation valuation methodology. A summary of weighted average (in aggregate) about significant unobservable inputs (Level 3 inputs) used in measuring the Company's warrant liabilities that are categorized within Level 3 of the fair value hierarchy for the years ended December 31, 2015 is as follows:

	As of December 31, 2015		
	Warrant Liability	Derivative Liability	Share-settled Debt
Contractual life (years)	4.8	0.8	0.4
Annualized volatility*	71%	70%	70%
Conversion price	$ 2.00	$ 2.50	$ 0.30
Expected dividends	0%	0%	0%
Risk-free investment rate	1.7%	0.6%	0.6%

* The Company uses comparable companies within the same industry to derive at the 70% annualized volatility.

10. Net Loss per Share

The following table sets forth the computation of the basic and diluted net loss per share attributable to common stockholders for the periods indicated (amount in thousands):

	As of December 31,	
	2015	2014
Numerator:		
Net loss	$ (25,214)	$ (27,277)
Preferred stock dividend	(3,595)	(875)
Deemed dividends on convertible preferred stock	(8,249)	-
Net loss attributable to common stockholders	$ (37,058)	$ (28,152)
Denominator:		
Weighted Average Common stock outstanding	8,878,000	4,926,000
Basic and diluted net loss per share	$ (4.17)	$ (5.71)

Potentially dilutive securities consist of:

	As of December 31,	
	2015	2014
Outstanding common stock options	308,000	201,000
Outstanding preferred stock option	829,000	829,000
Common Stock Purchase Warrants	12,810,000	311,000
Related party liability	401,000	20,000
Convertible senior secured promissory notes and accrued interest	12,382,000	-
Convertible preferred stock Series C	5,000	5,000
Convertible preferred stock Series D	-	289,000
Convertible preferred stock Series E	1,302,000	375,000
Convertible preferred stock Series H	6,534,000	-
Potentially dilutive securities	35,021,000	2,030,000

All of the listed dilutive securities are excluded from the computation of fully diluted loss per share as they are antidilutive.

11. Commitments and Contingencies

Commitments:

Sponsored Research Arrangements:

The Company entered into a number of sponsored research agreements during 2015, primarily, which require us to make future payments as follows (amount in thousands):

2016	$ 150
Total	$ 150

Lease Arrangements

The Company leases its main office facility and laboratory space in two separate locations in San Francisco, California. Office space in San Francisco is leased through November 2016 and provides for a monthly rental payment of approximately $12,600, plus operating expenses, subject to annual adjustment, of approximately $9,000 per month. The other facility lease is on a month-to-month basis.

Future non-cancellable minimum lease payments are (amount in thousands):

2016	$ 139
Total	$ 139

Rent expense for the years ended December 31, 2015 and 2014 was $407,000 and $150,000, respectively.

12. Temporary Equity

The following table summarizes the Company's Series H Preferred Stock activities for the year ended December 31, 2015 (amount in thousand):

	Series H convertible preferred stock	
	Shares	**Value**
Total temporary equity as of December 31, 2014	**-**	**$ -**
Proceeds from sale of Series H preferred stock, net of issuance costs of $0.4 million	4,588	3,796
Beneficial conversion feature of Series H convertible preferred stock	-	(1,260)
Deemed dividends related to immediate accretion of beneficial conversion feature of Series H convertible preferred stock	-	1,260
Fair Value of common stock warrant issued with Series H convertible preferred stock	-	(2,534)
Common stock issued in conversion of Series H convertible preferred stock	(1,772)	(1,772)
Deemed dividend on conversion of Series H convertible preferred stock to common stock	-	1,301
Deemed dividend related to accretion of redemption value	-	2,363
Total temporary equity as of December 31, 2015	2,816	$ 3,154

Securities Purchase Agreement

In September 2015, the Company entered into a Securities Purchase Agreement (the "Series H SPA") with an institutional investor for the sale of 3,056 (including 10% OID) shares of the Company's 12% Series H Preferred Stock (the "Series H Preferred Stock") and a warrant to purchase 1,299,000 shares of common stock (the "RD Warrant" and together with the Series H Preferred Stock, the "Securities") in a registered direct offering (the "RD Offering"), subject to customary closing conditions. The gross proceeds to the Company from the RD Offering were $2.4 million, net of $0.3 million of legal fees. Each share of Series H Preferred Stock has a stated value of $1,000 and is convertible into shares of common stock at an initial conversion price of the lower of (i) $2.50, subject to adjustment and (ii) 75%, subject to adjustment, of the lowest volume weighted average price, or VWAP, during the fifteen (15) Trading Days immediately prior to the date a conversion notice is sent to the Company by a holder, at any time at the option of the holder. The proceeds of the raise was used to buyout the holders of the Series G. A minimal amount was remaining and was included as a dividend.

The RD Warrant is exercisable at any time on or after the earlier to occur of (i) all shares of common stock underlying the RD Warrant are registered for resale under the Securities Act of 1933, and (ii) the date six (6) months from September 30, 2015 (the earlier to occur of (i) and (ii), the "Initial Exercise Date") and on or prior to the close of business on the five-year anniversary of the Initial Exercise Date at an exercise price of $2.00 per share. The warrant had price protection terms that precluded an equity classification, as such $1,548 was recorded as a derivative liability and recorded as net of proceeds.

4th Quarter Sale of Series H Preferred

During the quarter ended December 31, 2015, the Company sold additional 1,532 (including 10% OID) shares of the Company's Series H Preferred Stock and a warrant to purchase 650,896 shares of common stock for gross proceeds of $1.4 million.

During the year ended December 31, 2015, the Company recorded a deemed dividend of $0.9 million related to the beneficial conversion feature with the issuance of the Series H Convertible Preferred stock.

During the year ended December 31, 2015, 1,772 shares of Series H Preferred were converted to common stock. Upon conversion the Company recorded an additional deemed dividend of $1.6 million.

Temporary equity

The instrument is being classified as temporary equity because it has redemption features outside of the Company's control upon certain triggering events. If the Company fails to provide at all times the Registration Statement or usable prospectus that permits the Company to issue the Conversion Shares or which allows the Holder to sell the Conversion Shares pursuant thereto), is considered outside of the Company's control.

Redemption value

The Company is carrying the Series H at its maximum redemption amount at December 31, 2015 as the security is not currently redeemable, but is redeemable subsequent to December 31, 2015. The Company recognized the change immediately as if the redemption was to occur as of December 31, 2015. The current redemption amount is $3.1 million as of December 31, 2015

13. Stockholders' Equity

Preferred Stock

Series D Convertible Preferred Stock

On June 30, 2014, with the approval of the holder of the Company's Series D Preferred Stock, the Company filed an amendment to the Certificate of Designation of the Series D Preferred Stock to remove the feature by which stockholder could require redemption of the stock at cost. Accordingly, since the Series D Preferred Stock now contains mainly equity-like features, the Company changed the classification of the stock on its balance sheet from temporary equity to permanent equity within stockholders' equity (deficit).

The Series D securities were issued at 10% discount and contain a beneficial conversion feature. The beneficial conversion feature has been accreted, resulting in a deemed dividend reflected in the December 31, 2014 Consolidated Statements of Stockholders' Equity (Deficit). The value of the original issue discount is $130 and the beneficial conversion feature is $321.

During the first quarter of 2015, 549 shares of Series D preferred stock were converted to 122,073 common shares, and 2,045 shares of common stock were issued as a dividend due upon conversion. Also, 7,819 shares of common stock were issued as a quarterly dividend.

During the second quarter of 2015, 400 shares of Series D preferred stock were converted to 88,889 common shares. Also, 3,620 shares of common stock were issued as a quarterly dividend.

During the third quarter of 2015, 350 shares of Series D preferred stock were converted into 77,778 common shares.

Series E Convertible Preferred Stock

On November 7, 2014, the Company entered into securities purchase agreements pursuant to which the Company issued 4,500 shares of Series E Convertible Preferred Stock ("Series E Preferred Stock") which has a stated value of $1,000 and pays quarterly 12% cumulative dividends per annum. Dividends are payable by the Company in cash or at the Company's option, in shares of common stock if certain conditions are met. These conditions include availability of funds or no occurrence of a triggering event. Triggering events include change of control, bankruptcy, junior security redemptions, the Company's common stock shall fail to be listed or quoted on a Trading Market for more than five Trading Days. As of December 31, 2015 no triggering event has occurred.

Series E Make-whole dividend rights

Holders of Series E shares are entitled to three years of dividends from the date of issuance net of dividends already accrued. Each share of Series E Preferred Stock is convertible into shares of common stock by dividing the stated value per share by the then effective conversion price. The conversion price for the Series E is $12.00 per share, subject to adjustment under certain conditions, but in no event prior to six months from issuance.

Series E voting rights

Series E Preferred stockholders have the right to vote on all matters submitted to the Company's shareholders and the Series E Preferred Stock are entitled to such number of votes on an as-converted basis. Series E Preferred Stock also has a liquidation preference equal to the stated value and accrued and unpaid dividends.

Sales of Series E

During 2014, the Company sold 3,944 shares of Series E Preferred Stock for proceeds of $3.5 million, net of issuance costs of $43,000. The Company also issued 556 shares of Series E Preferred Stock to retire a $0.5 million demand promissory note.

The Series E shares were issued at 10% discount and contain a beneficial conversion feature. The beneficial conversion feature has been accreted, resulting in a deemed dividend reflected in the December 31, 2014 Consolidated Statements of Stockholders' Equity (Deficit). The value of the original issue discount is $450 and the beneficial conversion feature is $376.

Through December 31 2015, the Company has sold an additional 5,250 shares of Series E convertible preferred stock for gross proceeds of $4.7 million.

Senior Secured Notes Conversion into Series E

During the year ended December 31, 2015, the Company converted $0.7 million senior secured notes to 766 shares of Series E Preferred Stock.

Series E Conversions into common stock

Through December 31 2015, the Company converted 750 Series E shares to 1,501,112 common shares, and 1,003,433 shares of common stock were issued as a dividend.

Conversion Price

On July 9, 2015, the Company filed an amended and restated Certificate of Designation of its Series E Preferred Stock (the "Amendment"). The Amendment changed the conversion price for the Series E Preferred to $7.50, subject to adjustment commencing on January 8, 2016 (the "Conversion Price").

After January 8, 2016, in the event that Preferred Stock is outstanding, a Holder delivers a Notice of Conversion within 5 Trading Days following a period that the average of 3 consecutive VWAPs is less than $9.00 (subject to adjustment for reverse and forward stock splits and the like)("Trigger Period"), the Conversion Price shall be thereafter reduced, and only reduced, to equal the lesser of the then Conversion Price (as previously adjusted) and 65% of the average of the lowest 2 consecutive VWAPs out of the prior 10 consecutive Trading Days prior to the delivery of such Conversion Notice. Such adjustment may occur on multiple occasions during any Trigger Period and shall permanently reduce, and never increase, the Conversion Price. Notwithstanding the foregoing if the common stock of the Company is listed on NASDAQ and the price is $18.00 at the time of listing and for 10 consecutive Trading Days after such listing (subject to adjustment for reverse and forward stock splits and the like), then the adjustment of the Conversion Price above shall be 80% instead of 65% of the average of the lowest 2 consecutive VWAPs out of the prior 10 consecutive Trading Days.

Liquidation preference

The liquidation preference for Series E convertible preferred stock was $12.5 million as of December 31, 2015.

Series G Preferred Stock

Issuance

In the second quarter of 2015, the Company issued 1,087 shares of Series G Preferred stock for gross proceeds of $5.0 million, which was net of 8% original issue discount.

On July 10, 2015, the Company entered into an Amended and Restated Securities Purchase Agreement (the "Series G SPA") with an institutional investor for the sale of 435 shares of the Company's Series G Preferred Stock and an additional 100 shares of Series G Preferred Stock as a fee (collectively, the "Shares") in a registered direct offering (the "Offering"), subject to customary closing conditions. The gross proceeds to the Company from the registered direct offering were $2.0 million. Closing conditions were met on July 10, 2015 and the transaction was closed on July 13, 2015. The Series G Preferred Stock has a fixed conversion price of $9.00.

Repurchase Agreement

On September 25, 2015, the Company entered into a repurchase agreement (the "Repurchase Agreement") with the holder of all of the Company's issued and outstanding Series G Preferred Stock (the "Series G Holder") pursuant to which the Company repurchased the remaining Series G Preferred Stock and all shares of common stock held by the Series G Holder for an aggregate purchase price of $4,750. As of October 1, 2015, there are no more shares of Series G Preferred Stock issued and outstanding.

Conversions

1,622 shares of Series G converted through December 31, 2015 into 201,112 of common shares. In addition, the holders upon conversion received a conversion premium amount based on an agreed upon dividend rate which ranged 13-24% and six years from the date of notice of exercise. In aggregate a conversion premium amount of $1.9 million was due the holders.

The conversion premium amount was converted into common stock based upon an agreed upon discount to the common stock price, which ranged between $0.90 to $3.40. This resulted in additional common stock issued of approximately 1,416,000.

Common Stock

The Company is authorized to issue 35,000,000 shares of common stock, $0.001 par value. The holders of common stock: (i) have equal rights to dividends from funds legally available therefore, ratably when as and if declared by the Company's Board of Directors; (ii) are entitled to share ratably in all assets of the Company available for distribution to holders of common stock upon liquidation, dissolution, or winding up of the affairs of the Company; (iii) do not have preemptive, subscription or conversion rights and there are no redemption or sinking fund provisions applicable thereto; (iv) are entitled to one non-cumulative vote per share of common stock, on all matters which shareholders may vote on at all meetings of shareholders; and (v) the holders of common stock have no conversion, preemptive or other subscription rights. There is no cumulative voting for the election of directors. Each holder of the Company's common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. As of December 31, 2015, the Board of Directors had declared no dividends payable to holders of the Company's common stock.

Common stock private placement

In March 2014, the Company entered into an equity financing agreement ("LPC Purchase Agreement") with Lincoln Park Capital Fund LLC ("LPC") whereby LPC is obligated to purchase up to $20.0 million of the Company's common stock from time to time over a 30 month period, as directed by the Company and subject to certain requirements, restrictions and limitations. Under the LPC Purchase Agreement, the per share purchase price will be the lesser of the lowest sale price of common stock on the purchase date or the average of the three lowest closing purchase prices during the ten consecutive business days prior to the purchase date. However, LPC is not obligated to purchase shares from the Company on any date that the closing price of the common stock is below $6.00, subject to adjustment upon the occurrence of certain stock related events. The Company may also request that LPC purchase shares under an accelerated purchase notice whereby the per share purchase price will be the lower of (i) 94% of a volume weighted average price calculation as determined under the LPC Purchase Agreement or (ii) the closing price of the common stock on the accelerated purchase date.

Concurrently with the execution of the LPC Purchase Agreement, LPC purchased an initial 26,667 shares for gross proceeds of $0.4 million.

In consideration for entering into the LPC Purchase Agreement, the Company issued 63,333 shares of common stock to LPC (the 'Commitment Fee Shares'), 40,000 upon entering into the agreement and 23,333 contingently issuable on a pro rata basis as the Company utilizes the financing arrangement. The agreement will automatically terminate upon the earlier of 30 months (August 2016) or upon full utilization of the purchase commitment.

The fair value of the 40,000 Commitment Fee Shares initially issued to LPC was approximately $0.5 million at issue and initially recorded as a deferred funding fee asset. The fee, as well as fair value at issue of subsequent Commitment Fee Shares, has been recognized as additional paid in capital as of December 31, 2014.

During the first quarter of 2015 under the Lincoln Park Capital Fund LLC financing arrangement the Company sold 256,305 common shares and issued 3,290 common shares as a commitment fee for a total of $2.8 million.

Service Compensation

During the year ended December 31, 2015, the Company issued an aggregate of 526,388 shares of common stock to multiple venders as service compensation. The Company recorded $0.7 million service cost based on the fair value of the common stock on the issuance date.

Warrants

Nervada Warrants

On September 30, 2015 the Company issued warrants to purchase 500,000 shares of its common stock in exchange for an existing investor to agree to a lock-up of shares of common stock it held. The warrants are exercisable at $0.01 per share. The Company fair valued the warrant at $0.6 million and recorded a loss on issuance. The inputs included the exercise price of $0.01, contractual term of 5 years, volatility of 250% and risk free rate of 1%. The warrants are not exercisable until September 30, 2016.

Common Stock Purchase Warrants

The following table summarizes the Company's warrant activities for the years ended December 31, 2015 and 2014:

	Number of Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding as of December 31, 2013	563,689	$ 9.00	1.69
Issued in connection with warrant exchange	300,000	18.00	
Exercised	(552,777)	9.00	
Outstanding as of December 31, 2014	310,912	18.00	3.06
Issued in connection with various financings (1)	5,046,705	2.00	
Reset Warrants (2)	7,460,353	0.71	
Expired and cancellation	(8,020)	9.00	
Outstanding as of December 31, 2015	12,809,950	$ 1.14	4.77

(1) Approximately 4,547,000 warrants contain "down round protection" and the Company classifies these warrant instruments as liabilities at their fair value and adjusts the instruments to fair value at each reporting period.

(2) Certain warrants contain aggregate exercise provisions, and upon a reset the exercise price is decreased and the amount of common stock available under the warrant agreement increases. During the 4th quarter a reset occurred decreasing the exercise price from $2.00 to $0.71 and increasing the amount of common stock available to be issued from 4,106,000 to 11,566,000

14. Stock Option Plans

2008 Stock Plan

The Company's Board of Directors approved the 2008 Stock Plan (the "Plan"). Under the Plan, the Company may grant up to 307,466 shares of incentive stock options, nonqualified stock options, or stock awards to eligible persons, including employees, nonemployees, members of the Board of Directors, consultants, and other independent advisors who provide services to the Company. In general, options are granted with an exercise price equal to the fair value of the underlying common stock on the date of the grant. Options granted typically have a contractual life of 10 years and vest over periods ranging from being fully vested as of the grant date to four years.

The following table is a summary of activity under the 2008 Plan:

	Common stock options outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Balance December 31, 2013	46,275	$ 7.50	8.00
Options granted (weighted-average fair value of $0.08)			
Employee (1)	83,333	13.50	8.20
Non-employee	22,009	12.00	8.20
Options cancelled	(7,643)	10.50	
Outstanding as of December 31, 2014	143,974	11.50	7.80
Options cancelled	(30,000)	15.00	
Outstanding as of December 31, 2015	113,974	$ 10.58	8.50
Options vested December 31, 2015	104,891		

(1) Includes 26,666 shares granted to Robert Farrell, the Company's Chief Financial Officer, 13,333 of which are performance-based and vest upon continued service and achievement of a specific goal; and 13,333 of which are market-based and vest upon continued service and the Company's achievement of certain stock price targets. All of these shares have an exercise price of $12.00.

The amount of awards available to grant under the Plan is 38,977 as of December 31, 2015.

2014 Stock Plan

In August 2014, the Company adopted the 2014 Stock Plan (the "2014 Plan"), which was approved by the Company's stockholder at the Company's Annual Meeting in September 2014. Under the 2014 Plan, the Company may grant up to 1,025,868 common shares in the form of incentive stock options, nonqualified stock options or stock awards to eligible persons, including employees, nonemployees, members of the Board of Directors, consultants, and other independent advisors who provide services to the Company. In general, options are granted with an exercise price equal to the fair value of the underlying common stock on the date of the grant. Options granted typically have a contractual life of 10 years and vest over periods ranging from being fully vested as of the grant date to four years.

The following table is a summary of activity under the 2014 Plan:

	Common stock options outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Balance December 31, 2013	-	$ -	-
Options granted			
Employee	57,333	13.50	8.80
Outstanding as of December 31, 2014	57,333	13.50	8.80
Options granted			
Employee	166,467	12.50	8.20
Non-employee	15,000	12.30	8.20
Options cancelled	(44,600)	12.00	
Outstanding as of December 31, 2015	194,200	$ 8.91	9.50
Options vested December 31, 2015	83,922		

The amount of awards available to grant under the 2014 Plan is 831,668 as of December 31, 2015.

2012 Preferred Stock Plan

In July 2012, the Board of Directors adopted a new stock plan, the Management, Employee, Advisor and Director Preferred Stock Option Plan - 2012 Series B Convertible Preferred Stock Plan ("Preferred Stock Plan"). The purposes of the Preferred Stock Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Management, Employees, Advisors and Directors and to promote the success of the Company's business. Each share of Series B Preferred stock converts into 0.33 shares of common stock. The following table is a summary of activity under the Preferred Stock Plan:

	Preferred stock options outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Balance December 31, 2013	2,287,500	$ 0.47	8.50
Options granted			
Employee	200,000	2.21	8.80
Outstanding as of December 31, 2014	2,487,500	0.61	8.80
Options granted	-	-	-
Outstanding as of December 31, 2015	2,487,500	$ 0.61	7.80
Options vested December 31, 2015	2,483,333		

The amount of awards available to grant under the Preferred Stock Plan is 512,500 as of December 31, 2015.

Stock-based compensation expense for all plans for the years ended December 31, 2015 and 2014 is classified in the statements of operations as follows:

	For the Years Ended December 31,	
	2015	2014
Research and development	$ 455	$ 412
General and administrative	1,015	890
Total	$ 1,470	$ 1,302

At December 31, 2015, there was a total of approximately $2.0 million of unrecognized compensation cost, related to non-vested stock option awards, which is expected to be recognized over a weighted-average period of approximately 2.4 years.

The fair value of the Company's stock-based awards during the twelve months ended December 31, 2015 and 2014 were estimated using the following assumptions:

	Year Ended December 31,	
	2015	2014
Weighted-average volatility	262%	288%
Weighted-average expected term	6.18	5.8
Expected dividends	0%	0%
Risk-free investment rate	2%	2%
Expected forfeiture rate	0%	0%

15. Income Taxes

There is no provision for income taxes because we have incurred operating losses since inception and applied a full valuation allowance against all deferred tax assets. The reported amount of income tax expense attributable to operations for the year differs from the amount that would result from applying domestic federal statutory tax rates to loss before income taxes from operations as summarized below (amount in thousands):

	Year ended December 31,	
Loss before income taxes	2015	2014
United States	$ (25,213)	$ (27,277)
Foreign	-	-
Total Income (Loss) before income taxes	$ (25,213)	$ (27,277)

Income tax expense (benefit) for the years ended December 31, 2015 and 2014 differed from the amounts computed by applying the statutory federal income tax rate of 34% to pretax income (loss) as a result of the following (amount in thousands):

	Year ended December 31,	
	2015	2014
Federal tax expense (benefit) at statutory rate	$ (8,572)	$ (9,274)
State tax expense (benefit), net of federal tax effect	(1,342)	(1,334)
R&D credit	(326)	(269)
Non-deductible expenses	915	1,696
Change in valuation allowance	9,325	9,181
Total tax expense	$ -	$ -

	Year ended December 31,	
	2015	2014
Federal tax expense (benefit) at statutory rate	(34.0)%	(34.0)%
State tax expense (benefit), net of federal tax effect	(5.3)%	(4.9)%
R&D credit	(1.3)%	(1.0)%
Non-deductible expenses	3.6%	6.2%
Change in valuation allowance	37.0%	33.7%
Total tax expense	-%	-%

The significant components of deferred tax assets are as follows (amount in thousands):

	As of December 31,	
	2015	2014
Net operating loss carry-forward	$ 23,241	$ 12,835
Tax credit carry-forward	857	504
Accrued liabilities	1,851	1,257
Capitalized start-up costs	15	15
Depreciation and amortization	3,206	2,833
Gross deferred tax assets	29,170	17,444
Intangibles	(1,113)	-
Valuation allowance	(29,170)	(17,444)
Net deferred tax liabilities	$ (1,113)	$ -

The Company's accounting for deferred taxes involves the evaluation of a number of factors concerning the realizability of the Company's net deferred tax assets. The Company primarily considered such factors as the Company's history of operating losses, the nature of the Company's deferred tax assets and the timing, likelihood and amount, if any, of future taxable income during the periods in which those temporary differences and carryforwards become deductible. At present, the Company does not believe that it is more likely than not that the deferred tax assets will be realized; accordingly, a full valuation allowance has been established and no deferred tax asset is shown in the accompanying balance sheets. The valuation allowance increased by approximately $11.7 million and $9.2 million during the years ended December 31, 2015 and December 31, 2014, respectively.

As of December 31, 2015, the Company had net federal and state net operating loss carry-forwards of approximately $58.3 million and $58.3 million, respectively. These net operating loss carry forwards will begin to expire, if not utilized, beginning in 2028 for both federal and state income tax purposes. The Company also has federal and state research and development credit carry-forwards of approximately $0.7 million and $0.2 million, respectively. The federal credits will expire if not utilized beginning in 2029. The California credits do not expire.

The Tax Reform Act of 1986 and similar California legislation impose substantial restrictions on the use of net operating losses and tax credits in the event of an ownership change of a corporation. Accordingly, the Company's ability to use net operating losses and credit carry forwards may be significantly limited in the future as a result of such an ownership change.

The Company follows GAAP with regard recognition, measurement, presentation and disclosure in financial statements of any uncertain tax positions that have been taken or expected to be taken on a tax return. No liability related to uncertain tax positions is recorded on the financial statements. It is the Company's policy to include penalties and interest expense related to income taxes as a component of tax expense, as necessary.

A summary of unrecognized tax benefits is as follows (amount in thousands):

Ending balance at December 31, 2014	$	62
Increase (decrease) of unrecognized tax benefits taken in prior years		-
Increase (decrease) of unrecognized tax benefits related to current year		41
Increase (decrease) of unrecognized tax benefits related to settlements		-
Reductions to unrecognized tax benefits related lapsing statute of limitations		-
Ending balance at December 31, 2015	$	103

The total amount of unrecognized tax benefits that if recognized, would affect the effective tax rate is $0.

The Company has not incurred any interest or penalties as of December 31, 2015. The Company does not anticipate any significant change within 12 months of this reporting date of its uncertain tax positions. The Company is mainly subject U.S. federal income taxes and California state taxes. There are no ongoing examinations by taxing authorities at this time.

The Company's tax years 2008 through 2015 will remain open for examination by the federal and state authorities for three and four years, respectively, from the date of utilization of any net operating loss credits.

16. Related-Party Transactions

Consulting Agreements

The Company has an agreement with a NeuroAssets Sarl, a Swiss-based company to provide consulting services to the Company. Dr. David Lowe, who until October 2015, served as a Director of the Company is the president and chief executive officer of NeuroAssets. The Company recorded $0.6 million and $0.7 million in consulting fees to NeuroAssets for the years ended December 31, 2015 and 2014, respectively.

The Company has an agreement with Joseph Rubinfeld to provide consulting services to the company. Joseph Rubinfeld was appointed to the Company's Board of Directors in November 2012. The company recorded $100,000 and $142,000 in consulting fee for the years ended December 31, 2015 and 2014, respectively.

Note Receivable

On March 2, 2015, the Company loaned MedicoRx, Inc. $25,000 in an unsecured convertible promissory note. Joseph Rubinfeld is President and CEO and also a Board Member of Amarantus. The note provided the Company with first right of refusal on any additional investments, but there are no further obligations beyond the $25,000.

The Company had a demand promissory note with Neurotrophics, which is due 365 days upon demand of the holder. At the option of the Company, the note and the accrued interest owed can be converted into common stock of the Company based on the closing price of the Company's common stock on the day of the conversion. The conversion price if converted on December 31, 2015 would be $0.64 related to the note and accrued interest on the note and would convert to approximately 400,000 shares.

Related party liabilities:	**As of December 31,**	
	2015	**2014**
Promissory note, 2% interest	$ 222	$ 222
Accrued interest	35	30
Total	$ 257	$ 252

17. Subsequent Events

From January 1, 2016 to May 13, 2016, the Company issued the following preferred and common shares:

- In accordance with the original terms, converted 1,365 of Series E Preferred Stock into 17.1 million shares of common stock;
- In accordance with the original terms, converted 1,605 of Series H Preferred Stock into 28.8 million shares of common stock;
- In accordance with the original terms, issue Preferred Stock E dividends into 2.1 million shares of common stock;
- In accordance with the original terms, converted notes and interest $200,000 into 3.8 million shares of common stock;
- In accordance with the original terms, issue Preferred Stock H dividends into 2.3 million shares of common stock;
- Issued 0.5 million shares for services.

See below for more detail regarding certain debt and equity related transactions.

Sale of Series H Convertible Preferred Stock

On January 27, 2016, the Company entered into a Securities Purchase Agreement (the "Series H SPA") with an accredited investor for the sale of 1,166.666 (including 10% OID) shares of the Company's 12% Series H Preferred Stock (the "Series H Preferred Stock") and a warrant to purchase 495,833 shares of common stock (the "RD Warrant" and together with the Series H Preferred Stock, the "Securities") in a registered direct offering (the "RD Offering"), subject to customary closing conditions. The gross proceeds to the Company from the RD Offering were $1,000,000. Each share of Series H Preferred Stock has a stated value of $1,000 and is convertible into shares of common stock at an initial conversion price of the lower of (i) $2.50, subject to adjustment and (ii) 75%, subject to adjustment, of the lowest volume weighted average price, or VWAP, during the fifteen (15) Trading Days immediately prior to the date a conversion notice is sent to the Company by a holder, at any time at the option of the holder.

On February 19, 2016, the Company entered into a Securities Purchase Agreement (the "Series H SPA") with an accredited investor for the sale of 3,300 (including 10% OID) shares of the Company's 12% Series H Preferred Stock (the "Series H Preferred Stock") and a warrant to purchase 13,200,000 shares of common stock (the "RD Warrant" and together with the Series H Preferred Stock, the "Securities") in a registered direct offering (the "RD Offering"), subject to customary closing conditions. The gross proceeds to the Company from the RD Offering were $3,000,000. Each share of Series H Preferred Stock has a stated value of $1,000 and is convertible into shares of common stock at an initial conversion price of the lower of (i) $0.40, subject to adjustment and (ii) 75%, subject to adjustment, of the lowest volume weighted average price, or VWAP, during the fifteen (15) Trading Days immediately prior to the date a conversion notice is sent to the Company by a holder, at any time at the option of the holder.

The warrants are immediately exercisable, expire on the five-year anniversary from issuance and are have an exercise price of $0.40 per share.

An additional 525 shares of Series H were sold for $0.5 million in proceeds.

Repurchase agreement of Series E Preferred Stock

The Company also entered into repurchase agreements dated January 27, 2016 with two of its institutional investors pursuant to which the Company agreed to repurchase an aggregate 496 shares of Series H Preferred Stock and 496 shares of Series E Preferred Stock each at a price of $750,000 in 3 tranches in February 2016. Concurrently therewith, the Company has entered into an agreement with International Infusion LLC to provide funding of up to $1,500,000 to be used solely to repurchase such shares of Series H Preferred Stock.

Sale of Series E Convertible Preferred Stock

On February 8, 2016, the Company entered into a Securities Purchase Agreement (the "Series E SPA") with institutional investors for the sale of 255.56 (including 10% OID) shares of the Company's 12% Series E Preferred Stock (the "Series E Preferred Stock") in a registered direct offering (the "RD Offering"), subject to customary closing conditions. The gross proceeds to the Company from the RD Offering were $230,000. Each share of Series E Preferred Stock has a stated value of $1,000 and is convertible into shares of common stock at a conversion price of $7.50 provided if the Holder delivers a conversion notice within 5 trading days following a period that the average of 3 consecutive VWAPs is less than $9.00, the conversion price shall be equal to lesser of the then conversion price and 65% of the lowest 2 consecutive VWAPs out of the prior 10 consecutive trading days prior to the delivery of the conversion notice.

Investment - Convertible Note

On March 1, 2016, the Company was issued a convertible note (the "Note") from Theranostic Health, Inc. ("THI") in exchange for $400,000. The Company provided the financing evidenced by the Note in order to facilitate the proposed acquisition by Avant Diagnostics, Inc. ("Avant") of the assets and certain liabilities of THI. In a concurrent transaction, the Company has entered into a non-binding letter of intent to sell its wholly-owned subsidiary, Amarantus Diagnostics, Inc. to Avant for 80 million shares of common stock of Avant. The Note matures on February 28, 2017 and bears interest at 8% per annum payable at maturity in cash. The Note is convertible at any time at the option of the Company into shares of common stock of THI at a conversion price of $40.64 per share. The Note shall automatically convert into shares of common stock of THI upon a change of control of THI. It is expected that the Note will be assumed by Avant upon consummation of the transaction with THI. The conversion price of the Note is subject to weighted average anti-dilution price protection if the dilutive issuances are for less than $1 million and full ratchet anti-dilution protection if the dilutive issuances are for more than $1 million. The Note has events of default in for any default in the payment of principal or interest when due and for bankruptcy.

Debt Financing

On April 14, 2016, the Company entered into a Securities Purchase Agreement (the "Notes SPA") with three institutional investors for the sale of an aggregate principal amount $1,500,000 (including 10% OID) 10% Senior Secured Convertible Promissory Notes due April 17, 2017 (the "Senior Secured Notes") and a warrant to purchase 1,350,000 shares of common stock (the "Warrant") in a private placement offering (the "Offering"). The gross proceeds to the Company from the Offering were $1,350,000. The Company used the net proceeds from the Offering to pay Lonza Walkerville for costs associated with development of its ESS product and working capital. Chardan Capital Markets acted as a placement agent in connection with the sale of the Senior Secured Notes and Warrants.

Pursuant to the terms of the Notes SPA, the investors agreed to purchase additional aggregate principal amount of $1,555,556 (including 10% OID) of Senior Secured Notes and Warrants to purchase 1,400,000 shares of the Company's common stock on the first trading date after the registration statement which is the subject of the registration rights agreement (discussed below) is filed, and an additional $1,388,889 (including 10% OID) of Senior Secured Notes and Warrants to purchase 1,250,000 shares of the Company's common stock on the 61st day after such registration statement is declared effective or such earlier date as mutually agreed to among the investors, subject to the satisfaction of customary closing conditions.

The principal amount of the Senior Secured Notes shall accrue interest at a rate equal to 12% per annum, payable on the Maturity Date in cash, or, at the Company's option, in common stock or a combination thereof. At any time upon five (5) days written notice to the Investor, the Company may prepay any portion of the principal amount of the Senior Secured Notes and any accrued and unpaid interest at an amount equal to 120% of the then outstanding principal amount of the Senior Secured Notes and accrued interest or 130% if a Qualified Financing (as defined in the Senior Secured Notes) has occurred.

At any time after the issuance date of the Senior Secured Notes until all amounts due have been paid in full, the Senior Secured Note shall be convertible, in whole or in part, into shares of common stock at the option of the holder, at any time and from time to time. The conversion price in effect on any conversion date shall be equal to the lowest of (i) $0.40, (ii) 75% of the lowest daily VWAP in the fifteen (15) trading days prior to the conversion date, or (iii) (A) if a Public Offering (as defined in the Senior Secured Note) that is not a Qualified Public Offering (as defined in the Senior Secured Note) has occurred, 75% or (B) if a Qualified Public Offering has occurred, 80% of the lowest of the (x) per share price of shares of common stock, and (y) the lowest conversion price, exercise price or exchange price of any common stock equivalents, that are sold or issued to the public in the Public Offering or the Qualified Public Offering, respectively.

Effective on the closing (the "Mandatory Conversion Date") of a Qualified Public Offering, the Qualified Public Offering Conversion Amount (as defined in the Senior Secured Note) shall automatically (without further act or deed of the Holder or the Company) convert (the "Mandatory Conversion") into such number of shares of common stock as shall equal the quotient of (i) the Qualified Public Offering Conversion Amount outstanding as of and including the Mandatory Conversion Date, divided by (ii) a conversion price equal to the lowest of (i) the Conversion Price on the Mandatory Conversion Date, and (ii) eighty percent (80%) of the lowest of (x) the price per share at which the Company sells shares of common stock, and (y) the lowest conversion price, exercise price or exchange price of any common stock equivalents, if any, sold and or issued to the public in a Qualified Public Offering, if any.

The Senior Secured Notes contain certain customary Events of Default (including, but not limited to, default in payment of principal or interest thereunder, breaches of covenants, agreements, representations or warranties thereunder, the occurrence of an event of default under certain material contracts of the Company, including the transaction documents relating to the PP Offering, changes in control of the Company, filing of bankruptcy and the entering or filing of certain monetary judgments against the Company). Upon the occurrence of any such Event of Default the outstanding principal amount of the Senior Secured Notes, plus accrued but unpaid interest, liquidated damages, and other amounts owing in respect thereof through the date of acceleration, shall become, at the Investor's election, immediately due and payable in cash. Upon any Event of Default that results in acceleration of the Senior Secured Notes, the interest rate on the Senior Secured Notes shall accrue at an interest rate equal to the lesser of 24% per annum or the maximum rate permitted under applicable law.

The Warrant issued in the Offering is exercisable on or prior to the close of business on the five-year anniversary of the issuance date at an exercise price of $0.40 per share. The Warrant may be exercised on a cashless basis in the event there is no effective registration statement covering the shares of common stock issuable upon exercise.

In connection with the issuance of the Senior Secured Notes and Warrants, the Company entered into a Security Agreement and an Intellectual Property Security Agreement with the investor (the "Security Agreement") pursuant to which the Company agreed to grant a security interest in all of its assets to the investor in order to secure the prompt payment, performance and discharge in full of all of the Company's obligations under the Senior Secured Notes.

In addition, each of the Company's wholly owned subsidiaries entered into a Subsidiary Guarantee, pursuant to which each of the subsidiaries, jointly and severally, agreed to guarantee the obligations of the Company under the Senior Secured Notes.

In addition, the Company and certain of its investors agreed to a lock-up and leak-out agreements pursuant to which the investors agreed to certain trading restrictions with respect to its holdings of preferred stock and convertible notes of the Company. The lock-up agreements remain in force until $67.5 million of aggregate trading volume, calculated from the date that a registration statement underlying the shares of the Senior Secured Notes has been declared effective by the Securities and Exchange Commission. The leak-out restrictions, restrict certain investors to ranges of trading to no more than 2.5% to 15% of the average daily volume of the Company's common stock. The leak out agreements remain in force until $67.5 million of aggregate trading volume, calculated from the date that a registration statement underlying the shares of the Senior Secured Notes has been declared effective by the Securities and Exchange Commission. In partial consideration of the investors' agreeing to the trading restrictions, the Company agreed to amendments of the terms of the Series E and Series H Preferred in order to provide additional voting rights for those investors at its upcoming annual meeting of shareholders.

The Company entered into a Registration Rights Agreement with the investors in which it agreed to register the shares of common stock issuable upon conversion or as interest under the Senior Secured Notes and the shares of common stock issuable upon exercise of the Warrants which registration shall be filed within 10 days. The Company agreed to use its best efforts to have the Registration Statement declared effective within 45 days of filing. The Company is required to pay partial liquidated damages in cash of 2% of the subscription amount paid by each holder if: (i) the Company fails to file a request for acceleration of the registration Statement within five trading days of the date that the Company is notified that such Registration Statement will not be "reviewed" or will not be subject to further review, or (ii) the Company fails to file a pre-effective amendment and otherwise respond in writing to comments within ten (10) calendar days after the receipt of comments, or (iii) the registration statement is not declared effective within 45 days of filing, or (iv) after the effective date of, such Registration Statement ceases for any reason to remain continuously effective. If the Company fails to pay any partial liquidated damages in full within seven days after the date payable, the Company will pay interest thereon at a rate of 18% per annum.

In connection with the Offering, the Company also agreed that at its annual meeting of shareholders to be held on or before June 6, 2016, to seek the approval of its shareholders to increase its authorized common stock and effect a reverse stock split.

Notes payable exchange for Senior Secured Convertible Promissory Notes

On March 9, 2016 two investors assigned their 12% Promissory notes to a third investor in return for payment of principal and interest, $112,000 and $224,000 respectively. The third investor, on the same day, entered into two separate Exchange Agreements with the Company. The Exchange Agreements allow the third investor to exchange the 12% Promissory Notes for two separate 12% Senior Secured Convertible Promissory Notes, $100,000 and $200,000 respectively. During March 2016 the $100,000 note was converted to 1,989,669 Common shares. The $200,000 12% Senior Secured Convertible Promissory Note is still outstanding.

Acquisition of Amarantus Diagnostics by Avant Diagnostics, Inc.

On May 11, 2016 (the "Effective Date"), Amarantus, Amarantus Diagnostics, Inc., a wholly-owned subsidiary of Amarantus ("AMDX"), and Avant Diagnostics, Inc. ("Avant") entered into a Share Exchange Agreement (the " Exchange Agreement"). Pursuant to the terms of the Exchange Agreement, the Avant purchased 100% of the outstanding capital stock of AMDX from Amarantus (the " AMDX Acquisition "). The AMDX Acquisition closed upon the execution of the Exchange Agreement. Gerald Commissiong, President and Chief Executive Officer of Amarantus, became a member of the Avant's Board of Directors upon closing of the AMDX Acquisition.

Avant paid to Amarantus aggregate consideration of 80,000,000 shares of Avant's common stock for the AMDX Acquisition, subject to the issuance of additional shares upon the occurrence of certain events set forth in the Exchange Agreement (the "AMDX Consideration"). Each share of Avant common stock received in connection with the AMDX Acquisition shall be subject to a lock-up beginning on the Effective Date and ending on the earlier of (i) eighteen (18) months after such date or (ii) a Change in Control (as defined in the Exchange Agreement).

AMDX owned the rights to MSPrecise®, a proprietary next-generation DNA sequencing (NGS) assay for the identification of patients with relapsing-remitting multiple sclerosis (RRMS) at first clinical presentation, has an exclusive worldwide license to the Lymphocyte Proliferation test (LymPro Test®) for Alzheimer's disease, which was developed by Prof. Thomas Arendt, Ph.D., from the University of Leipzig, and owns intellectual property for the diagnosis of Parkinson's disease (NuroPro).

In connection with the Exchange Agreement, on the Effective Date, the Avant issued to Amarantus a convertible promissory note in the principal amount of $50,000 (the "Note"). The Note bears interest at 12% per annum and matures one year from the date of issuance. The Note will be convertible at the option of the Amarantus at any time into shares of Avant's common stock, at an initial conversion price equal to $0.20, subject to adjustment. The conversion price of the Note is subject to customary adjustments provisions for stock splits, stock dividends, recapitalizations and the like. Amarantus has contractually agreed to restrict its ability to convert the Note such that the number of shares of Avant's common stock held by Amarantus and its affiliates after such conversion does not exceed 4.99% of Avant's then issued and outstanding shares of common stock.

Amarantus Diagnostics Sale

On May 11, 2016 (the "Effective Date"), Amarantus entered into a Share Exchange Agreement (the "Exchange Agreement") among the Amarantus, Amarantus Diagnostics, Inc., a wholly-owned subsidiary of the Company ("AMDX") and Avant Diagnostics, Inc. (the "Buyer"). Pursuant to the terms of the Exchange Agreement, the Buyer purchased 100% of the outstanding capital stock of AMDX from Amarantus (the "AMDX Sale"). The AMDX Sale closed upon the execution of the Exchange Agreement. Gerald Commissiong, President and Chief Executive Officer of the Amarantus, became a member of the Buyer's Board of Directors (the "Board") upon closing of the AMDX Sale.

The Buyer paid aggregate consideration of 80,000,000 shares of its common stock to Amarantus for the AMDX Sale, subject to the issuance of additional shares upon the occurrence of certain events set forth in the Exchange Agreement (the "AMDX Consideration"). During the thirty-six (36) months from May 11, 2016 (the "Measurement Period"), if AMDX generates sales of at least five million dollars ($5,000,000) with respect to MSPrecise®, during any consecutive 12-month period or twelve million dollars ($12,000,000) million cumulatively during the Measurement Period, the Buyer shall issue to Amarantus an additional 10,000,000 shares of the Buyer's common stock (the "Additional AMDX Consideration") . Each share of Buyer common stock received in connection with the AMDX Sale shall be subject to a lock-up beginning on the Effective Date and ending on the earlier of (i) eighteen (18) months after such date or (ii) a Change in Control (as defined in the Exchange Agreement) or (iii) written consent of the parties to that certain escrow agreement entered into between the Buyer, AMDX, Amarantus and certain creditors of the Company (the "Lock-Up Period").

At the end of the Lock-Up Period, in the event that the AMDX Consideration has a value equal to or less than $3,000,000 in the aggregate on the date the Lock-Up Period expires (based on the average closing "print' prices at 4:00 p.m. of the Buyer's common stock on the last five days prior to the date the Lock-Up Period expires as listed or quoted on any national securities exchange or over-the-counter market (including any tier maintained by the OTC Markets, Inc.), as the case may be (the "Lock-Up Termination Date Closing Price ") multiplied by the AMDX Consideration) (the "Lock-Up Termination Date"), the Buyer shall issue Amarantus such number of additional shares of its common stock (the "Additional Common Stock") equal to the lesser of (i) 9.99% of the outstanding shares of the Buyer's common stock as of the Lock-Up Termination Date or (ii) the difference between $3,000,000 and the value of the AMDX Consideration as of the Lock-Up Termination Date divided by the Lock-Up Termination Date Closing Price. Notwithstanding the foregoing, in lieu of issuance of any Additional Common Stock, the Buyer may, in its sole discretion, pay to the Buyer an amount in cash equal to the aggregate value of the Additional Buyer Common Stock to be issued. So long as Amarantus holds any shares of Additional Common Stock, at any meeting of the stockholders of the Buyer or any written action by consent of stockholders of the Buyer called for any matter, unless otherwise directed in writing by the Buyer, Amarantus shall vote or shall cause to be voted any issued and outstanding shares of Additional Common Stock owned by the Company as of the record date with respect to such meeting or consent as requested by the Buyer's chief executive officer.

The Exchange Agreement includes customary representations, warranties and covenants of the Company, AMDX and the Buyer made solely for the benefit of the parties to the Exchange Agreement. The assertions embodied in those representations and warranties were made solely for purposes of the contract among Amarantus, AMDX and the Buyer and may be subject to important qualifications and limitations agreed to by the Amarantus, AMDX and the Buyer in connection with the negotiated terms. Moreover, some of those representations and warranties may not be accurate or complete as of any specified date, may be subject to a contractual standard of materiality different from those generally applicable to stockholders or may have been used for purposes of allocating risk among Amarantus, AMDX and the Buyer rather than establishing matters as facts. Investors are not third-party beneficiaries under the Exchange Agreement and should not rely on the representations, warranties and covenants in the Exchange Agreement or any description thereof as characterizations of the actual state of facts of the Company, AMDX and the Buyer or any of their respective subsidiaries or affiliates.

In connection with the Exchange Agreement, on the Effective Date, the Company entered into an escrow agreement dated May 11, 2016 by and among Amarantus, the Buyer, AMDX, holders of the Company's secured debt (" Secured Holders") and Robinson Brog Leinwand Greene Genovese & Gluck P.C., a professional corporation organized and existing under the laws of the State of New York, as Escrow Agent (the "Escrow Agreement") pursuant to which the AMDX Consideration and Additional AMDX Consideration (collectively, the "Escrow Shares") was deposited into escrow with the Escrow Agent to be held in escrow for the Lock-Up Period. 1.5 million of the Escrow Shares can be released to the Secured Holders for any event of default under the agreements between the Secured Holders and Amarantus. In addition, 7.25 million of the Escrow Shares can be released to Amarantus to repay certain notes and 7.25 million of the Escrow Shares can be released to Amarantus in connection with a stock dividend by the Company to its holders of common stock. The remaining 74 million of the Escrow Shares can be sold and assigned by Amarantus; provided that no less than 70% of the net proceeds from any sale shall be used to repay certain notes of Amarantus or redeem outstanding shares of preferred stock.

In connection with the Exchange Agreement, on the Effective Date, the Buyer issued a convertible promissory note to Amarantus pursuant to which the Company purchased a note with aggregate principal amount of $50,000 for an aggregate purchase price of $50,000 (the "Note"). The Note bears interest at 12% per annum and matures one year from the date of issuance. The Note will be convertible at the option of Amarantus at any time into shares of common stock of the Buyer, at an initial conversion price equal to $0.20, subject to adjustment. The conversion price of the Note is subject to customary adjustments provisions for stock splits, stock dividends, recapitalizations and the like. The Buyer has contractually agreed to restrict its ability to convert the Note such that the number of shares of Buyer common stock held by Amarantus and its affiliates after such conversion does not exceed 4.99% of the Buyer's then issued and outstanding shares of common stock.

Issuance of Senior Secured Convertible Promissory Notes and Warrants

On May 13, 2016, two institutional investors purchased $1,540,000 (including 10% OID) principal amount of 10% Senior Secured Convertible Promissory Notes due May 13, 2017 (the "Senior Secured Notes") pursuant to a previously disclosed Securities Purchase Agreement (the "Notes SPA") entered into on April 14, 2016.

In connection with the sale of the Senior Secured Notes, Amarantus issued warrants to purchase an aggregate 1,400,000 shares of common stock to the institutional investors. The warrant issued pursuant to the Notes SPA are exercisable on or prior to the close of business on the five-year anniversary of the issuance date at an exercise price of $0.40 per share. The warrants may be exercised on a cashless basis in the event there is no effective registration statement covering the shares of common stock issuable upon exercise.

The warrants described above were not registered under the Securities Act of 1933, as amended (the "Securities Act"), or the securities laws of any state, and were offered and sold in reliance on the exemption from registration afforded by Section 4(a)(2) or other appropriate exemptions promulgated under the Securities Act.

EXHIBIT 21.1

Subsidiaries

Amarantus Therapeutics, Inc., a Nevada corporation

Amarantus Therapeutics, Inc., a Delaware corporation

Amarantus MA, Inc., a Massachusetts corporation

Amarantus Diagnostics Inc., a Delaware corporation

Exhibit 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statement of Amarantus Bioscience Holdings, Inc **.** on Form S-8's (File Nos. 333-178113, 333-178222, 333-186995, 333-193435, 333-200987, 333-200988, 333-207769) of our report, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, dated May 16, 2016 with respect to our audits of the consolidated financial statements of Amarantus Bioscience Holdings, Inc. as of December 31, 2015 and 2014 and for the years ended December 31, 2015 and 2014, which report is included in this Annual Report on Form 10-K of Amarantus Bioscience Holdings, Inc. for the year ended December 31, 2015.

/s/ Marcum llp

New York, NY
May 16, 2016

EXHIBIT 31.1

CERTIFICATIONS

I, Gerald E. Commissiong, certify that:

1) I have reviewed this annual report on Form 10-K of Amarantus Bioscience Holdings, Inc.

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

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

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

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

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

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

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

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

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

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

Date: May 16, 2016

/s/ GERALD E. COMMISSIONG
Gerald E. Commissiong
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATIONS

I, Robert Farrell, certify that:

1) I have reviewed this annual report on Form 10-K of Amarantus Bioscience Holdings, Inc.

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

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

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

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

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

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

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

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

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

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

Date: May 16, 2016

/s/ Robert Farrell
Robert Farrell
Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this annual report of Amarantus BioScience Holdings, Inc. (the "Registrant") on Form 10-K for the period ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned, in the capacities and on the date indicated below, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(a) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Date: May 16, 2016

/s/ GERALD E. COMMISSIONG
Gerald E. Commissiong
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this annual report of Amarantus BioScience Holdings, Inc. (the "Registrant") on Form 10-K for the period ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned, in the capacities and on the date indicated below, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(a) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Date: May 16, 2016

/s/ Robert Farrell
Robert Farrell
Chief Financial Officer
(Principal Financial Officer)