

BioRestorative Therapies, Inc.  
Form 10-K  
March 22, 2017

**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, 2016**

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

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

Commission File Number **0-54402**

**BIORESTORATIVE THERAPIES, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction)

**91-1835664**

of incorporation or organization) (I.R.S. Employer  
Identification No.)

**40 Marcus Drive, Melville, New York 11747**  
(Address of principal executive offices) (Zip Code)

**(631) 760-8100**

(Registrant's telephone number, including area code)

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

| <u>Title of each class</u> | <u>Name of each exchange on which registered</u> |
|----------------------------|--|
| None                       | Not applicable                                   |

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

**Common Stock, par value \$0.001 per share**

(Title of Class)

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

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

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

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 for such shorter period that the registrant was required to submit and post such files). Yes [X] No [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated  (Do not check if a smaller reporting company) Smaller reporting company

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

As of June 30, 2016, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$9,795,332 based on the closing sale price as reported on the OTCQB market. As of March 15, 2017, there were 5,276,027 shares of common stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

None

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## **PART I**

### **Forward-Looking Statements**

This Annual Report contains forward-looking statements as that term is defined in the federal securities laws. The events described in forward-looking statements contained in this Annual Report may not occur. Generally these statements relate to business plans or strategies, projected or anticipated benefits or other consequences of our plans or strategies, projected or anticipated benefits from acquisitions to be made by us, or projections involving anticipated revenues, earnings or other aspects of our operating results. The words “may,” “will,” “expect,” “believe,” “anticipate,” “project,” “plan,” “intend,” “estimate,” and “continue,” and their opposites and similar expressions are intended to identify forward-looking statements. We caution you that these statements are not guarantees of future performance or events and are subject to a number of uncertainties, risks and other influences, many of which are beyond our control, that may influence the accuracy of the statements and the projections upon which the statements are based. Factors which may affect our results include, but are not limited to, the risks and uncertainties discussed in Item 7 of this Annual Report under “Factors That May Affect Future Results and Financial Condition”.

Any one or more of these uncertainties, risks and other influences could materially affect our results of operations and whether forward-looking statements made by us ultimately prove to be accurate. Our actual results, performance and achievements could differ materially from those expressed or implied in these forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether from new information, future events or otherwise.

### **Intellectual Property**

This Annual Report includes references to our federally registered trademarks, *BioRestorative Therapies*, the *Dragonfly Logo*, *brtxDISC*, *ThermoStem*, *Stem Cellutrition*, *Stem Pearls* and *Stem the Tides of Time*. The Dragonfly Logo is also registered with the U.S. Copyright Office. This Annual Report also includes references to trademarks, trade names and service marks that are the property of other organizations. Solely for convenience, trademarks and trade names referred to in this Annual Report appear without the ®, <sup>SM</sup> or <sup>TM</sup> symbols, and copyrighted content appears without the use of the symbol ©, but the absence of use of these symbols does not reflect upon the validity or enforceability of the intellectual property owned by us or third parties.

**ITEM 1. BUSINESS.**

**(a) Business Development**

As used in this Annual Report on Form 10-K (the “Annual Report”), references to the “Company”, “we”, “us”, or “our” refer to BioRestorative Therapies, Inc. and its subsidiaries.

We were incorporated in Nevada on June 13, 1997. On August 15, 2011, we changed our name from “Stem Cell Assurance, Inc.” to “BioRestorative Therapies, Inc.” Effective January 1, 2015, we reincorporated in Delaware.

During the year ended December 31, 2016, we raised an aggregate of \$3,711,236 in connection with sales of common stock and warrants and from the exercise of warrants, and an aggregate of \$1,345,470 in net debt financing. As of December 31, 2016, our outstanding debt of \$2,336,565, together with interest at rates ranging between 0% and 15% per annum, was due through October 2017. Subsequent to December 31, 2016 and through March 15, 2017, we have received aggregate equity proceeds (including proceeds received from the exercise of common stock purchase warrants) and debt proceeds of \$945,000 and \$200,000, respectively, debt and accrued interest of \$325,000 and \$9,679, respectively, has been converted into or exchanged for common stock, \$89,000 of debt and net short-term advances have been repaid and the due date for the repayment of \$322,000 of debt has been extended through April 2017. Giving effect to the above actions, we currently have notes payable aggregating \$427,500 which are past due.

In February 2016, Robert B. Catell joined our Board of Directors. See Item 10 (“Directors, Executive Officers and Corporate Governance”).

Between March 2016 and September 2016, we sold to John M. Desmarais, one of our directors and principal stockholders, an aggregate of 330,000 shares of our common stock at an aggregate purchase price of \$1,240,000. In June 2016, we borrowed \$500,000 from a trust for which Mr. Desmarais serves as a trustee and which was established for the benefit of his immediate family. See Item 10 (“Directors, Executive Officers and Corporate Governance”) and Item 13 (“Certain Relationship and Related Transactions, and Director Independence”).

In January 2017, we announced that we had submitted an investigational new drug, or an IND, application to the U.S. Food and Drug Administration, or the FDA, to obtain clearance to commence a Phase 2 clinical trial using our lead cell therapy candidate, *BRTX-100*, to treat chronic lower back pain due to degenerative disc disease related to protruding/bulging discs. In February 2017, we received such clearance from the FDA.





(b) **Business**

**General**

We develop therapeutic products and medical therapies using cell and tissue protocols, primarily involving adult (non-embryonic) stem cells. Our two core programs, as described below, relate to the treatment of disc/spine disease and metabolic disorders:

***Disc/Spine Program (brtxDisc).*** Our lead cell therapy candidate, BRTX-100, is a product formulated from autologous (or a person's own) cultured mesenchymal stem cells, or MSCs, collected from the patient's bone marrow. We intend that the product will be used for the non-surgical treatment of protruding and bulging lumbar discs in patients suffering from chronic lumbar disc disease. The BRTX-100 production process involves collecting bone marrow from a patient, isolating and culturing stem cells from the bone marrow and cryopreserving the cells. In an outpatient procedure, BRTX-100 is to be injected by a physician into the patient's damaged disc. The treatment is intended for patients whose pain has not been alleviated by non-surgical procedures or conservative therapies and who potentially face the prospect of surgery. In January 2017, we submitted an IND application to the FDA to obtain clearance to commence a Phase 2 clinical trial using our lead cell therapy candidate, BRTX-100, to treat chronic lower back pain due to degenerative disc disease related to protruding/bulging discs. In February 2017, we received such clearance from the FDA. We intend to commence such clinical trial during the fourth quarter of 2017. See "Disc/Spine Program" below.

***Metabolic Program (ThermoStem).*** We are developing a cell-based therapy to target obesity and metabolic disorders using brown adipose (fat) derived stem cells, or BADSC, to generate brown adipose tissue, or BAT. We refer to this as our *ThermoStem Program*. BAT is intended to mimic naturally occurring brown adipose depots that regulate metabolic homeostasis in humans. Initial preclinical research indicates that increased amounts of brown fat in the body may be responsible for additional caloric burning, as well as reduced glucose and lipid levels. Researchers have found that people with higher levels of brown fat may have a reduced risk for obesity and diabetes. In March 2014, we entered into a Research Agreement with Pfizer, Inc., a global pharmaceutical company, pursuant to which we were engaged to provide research and development services with regard to a joint study of the development and validation of a human brown adipose (fat) cell model. A United States patent related to the *ThermoStem Program* issued in September 2015. See "Metabolic Brown Adipose (Fat) Program" below.

We have also licensed a curved needle device designed to deliver cells and/or other therapeutic products or material to the spine and discs. In August 2015, a United States patent for this device was issued to the licensor, Regenerative Sciences, LLC. See "Curved Needle Device" below.

In addition, we have developed a human cellular extract that has been demonstrated in *in vitro* skin studies to increase the production of collagen and fibronectin, which are proteins that are essential to combating the aging of skin. We also offer plant stem cell-based facial creams and beauty products under the *Stem Pearls* brand. See "Cosmetic

Products” below.

## **Overview**

Every human being has stem cells in his or her body. These cells exist from the early stages of human development until the end of a person’s life. Throughout our lives, our body continues to produce stem cells that regenerate to produce differentiated cells that make up various aspects of the body such as skin, blood, muscle and nerves. These are generally referred to as adult (non-embryonic) stem cells. These cells are important for the purpose of medical therapies aiming to replace lost or damaged cells or tissues or to otherwise treat disorders.

Regenerative cell therapy relies on replacing diseased, damaged or dysfunctional cells with healthy, functioning ones or repairing damaged or diseased tissue. A great range of cells can serve in cell therapy, including cells found in peripheral and umbilical cord blood, bone marrow and adipose (fat) tissue. Physicians have been using adult stem cells from bone marrow to treat various blood cancers for 60 years (the first successful bone marrow transplant was performed in 1956). Recently, physicians have begun to use stem cells to treat various other diseases. We intend to develop cell and tissue products and regenerative therapy protocols, primarily involving adult stem cells, to allow patients to undergo cellular-based treatments.

We intend to concentrate initially on therapeutic areas in which risk to the patient is low, recovery is relatively easy, results can be demonstrated through sufficient clinical data, and patients and physicians will be comfortable with the procedure. We believe that there will be readily identifiable groups of patients who will benefit from these procedures.

Accordingly, we have focused our initial efforts in offering cellular-based therapeutic products and treatment programs in selective areas of medicine for which the treatment protocol is minimally invasive. Such areas include the treatment of the disc and spine and metabolic-related disorders. We will seek to obtain third party reimbursement for our products and procedures; however, patients may be required to pay for our products and procedures out of pocket in full and without the ability to be reimbursed by any governmental and other third party payers.

We have obtained a patent, as well as licenses, for the exclusive use of a patent and a patent pending and have undertaken research and development efforts in connection with the development of therapeutic products and medical therapies using cell and tissue protocols, primarily involving adult stem cells. See “Disc/Spine Program”, “Metabolic Brown Adipose (Fat) Program” and “Curved Needle Device” below.

We have developed a human adult stem cell-derived extract that, when applied to human skin cells, significantly increases the production of collagen and fibronectin, which are proteins that are essential to combating the aging of skin. We also offer plant stem cell derived facial creams and beauty products under the *Stem Pearls* brand. See “Cosmetic Products” below.

We have established a laboratory facility and will seek to further develop cellular-based treatments, products and protocols, stem cell-related intellectual property, or IP, and translational research applications. See “Laboratory” below.

We have not generated any significant revenues from our operations. The implementation of our business plan, as discussed below, will require the receipt of sufficient equity and/or debt financing to purchase necessary equipment, technology and materials, fund our research and development efforts, retire our outstanding debt (see Item 7 – “Management’s Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources – Availability of Additional Funds”) and otherwise fund our operations. We intend to seek such financing

from current shareholders and debtholders as well as from other accredited investors. We also intend to seek to raise capital through investment bankers and from biotech funds, strategic partners and other financial institutions. We anticipate that we will require between \$8,000,000 and \$10,000,000 in financing to commence and complete a Phase 2 clinical trial and we will require between \$20,000,000 and \$30,000,000 in further additional funding to complete our clinical trials using *BRTX-100*, as further discussed in this Item 1 (assuming the receipt of no revenues from operations), repay our outstanding debt (\$2,336,565 as of December 31, 2016) (assuming that no debt is converted into equity) and fund general operations. We will also require a substantial amount of additional funding to implement our other programs discussed in this Item 1. No assurance can be given that the anticipated amounts of required funding are correct or that we will be able to accomplish our goals within the timeframes projected. In addition, no assurance can be given that we will be able to obtain any required financing on commercially reasonable terms or otherwise. We may also seek to have our debtholders convert all or a portion of their debt into equity. No assurance can be given that we will be able to convert such debt into equity on commercially reasonable terms or otherwise. If we are unable to obtain adequate funding, we may be required to significantly curtail or discontinue our proposed operations. See Item 7 (“Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors That May Affect Future Results and Financial Condition - We will need to obtain additional financing to satisfy debt obligations and continue our operations.”).

## Disc/Spine Program

### *General*

Among the initiatives that we are currently pursuing is our *Disc/Spine Program*, with our initial product being called *BRTX-100*. We have obtained a license (see “License” below) that permits us to use technology for adult stem cell treatment of disc and spine conditions, including protruding and bulging discs. The technology is an advanced stem cell culture and injection procedure into the intervertebral disc, or IVD, that may offer relief from lower back pain, buttock and leg pain, and numbness and tingling in the legs and feet.

Lower back pain is the most common, most disabling, and most costly musculoskeletal ailment faced worldwide. According to a recent market report, there are nearly 25 million people in the United States with chronic lower back pain of which approximately 5 million have pain caused by a protruding or bulging disc. We believe that between 500,000 and 1 million of these back pain sufferers will have an invasive surgical procedure to try to alleviate the pain associated with these lower back conditions. Clinical studies have documented that the source of the pain is most frequently damage to the IVD. This can occur when forces, whether a single load or repetitive microtrauma, exceed the IVD’s inherent capacity to resist those loads. Aging, obesity, smoking, lifestyle, and certain genetic factors may predispose one to an IVD injury.

While once thought to be benign, the natural history of lower back pain is often one of chronic recurrent episodes of pain leading to progressive disability. This is believed to be a direct result of the IVD’s poor healing capacity after injury. The IVD is the largest avascular (having few or no blood vessels) structure in the body and is low in cellularity. Therefore, its inherent capacity to heal after injury is poor. The clinical rationale of *BRTX-100* is to deliver a high concentration of the patient’s own MSCs into the site of pathology to promote healing and relieve pain.

We have developed a mesenchymal stem cell product, *BRTX-100*, derived from autologous (or a person’s own) human bone marrow, cultured and formulated to be delivered into a protruding or bulging disc.

In January 2017, we announced that we had submitted an IND application to the FDA to obtain clearance to commence a Phase 2 clinical trial using our lead cell therapy candidate, *BRTX-100*, to treat chronic lower back pain due to degenerative disc disease related to protruding/bulging discs. In February 2017, we received such clearance from the FDA. We intend to commence such clinical trial during the fourth quarter of 2017.

In addition to developing *BRTX-100*, we may also seek to sublicense the technology to third parties for use in connection with cellular-based treatment programs with regard to disc and spine related conditions.

We have established a laboratory, which includes a clean room facility, to perform the production of cell products (including *BRTX-100*) for use in our clinical trials. We intend to certify the operation of the cleanroom by the third quarter of 2017. This capability may also enable us to develop our pipeline of future products and expand our stem cell-related IP. See “Laboratory” and “Technology; Research and Development” below.

### *BRTX-100*

Our lead therapeutic product, *BRTX-100*, is an autologous hypoxic (low oxygen) cultured mesenchymal stem cell product derived from a patient’s bone marrow and formulated with a proprietary carrier. The cryopreserved sterile cellular product will be provided to the clinician in vials for injection into damaged lumbar discs. The therapeutic delivery of *BRTX-100*, in treatment of chronic lumbar disc disease, is performed using a standard 20 gauge 3.5 inch introducer needle and a 25 gauge 6 inch needle that extends into the disc region where the product is delivered. Specific medical practitioners will be provided training using the product with regard to the injection procedure. It is anticipated that the treatment and delivery of the product will be a 30 minute outpatient procedure.

MSCs used in *BRTX-100* are similar to other MSCs under development by others; however, in order to enhance the survivability of our bone marrow-derived MSCs in the avascular environment of the damaged disc, *BRTX-100* is expanded under hypoxic conditions for a period of approximately three weeks. This process results in a cell population with enhanced viability and therapeutic potential following injection locally into injured spinal discs. Publications and scientific literature have indicated that MSCs preconditioned in hypoxic environment show enhanced skeletal muscle regeneration, improved blood flow and vascular formation compared to MSCs cultured under normoxic (normal oxygen) conditions.

### *Production and Delivery*

The production of *BRTX-100* begins with the physician collecting bone marrow from the patient under a local anesthesia. Peripheral blood is also collected from the patient. The physician will then send the patient’s bone marrow and blood samples to our laboratory (or a contract laboratory) for culturing and formulation. The hypoxic culturing process applied is intended to result in the selection of a cell population that is suitable for an improved possibility of survival in the internal disc environment. The cell culturing process and product formulation will take approximately three weeks, with an additional two weeks required for quality control testing required to meet product release criteria. We will then send the therapeutic cryopreserved stem cells (*BRTX-100*) in a sterile vial back to the physician’s offices where it will be thawed prior to the procedure. The price structure for the procedure and our services has not been

determined and no assurances can be given in this regard. The following illustrates the process.

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*License*

Pursuant to our license agreement with Regenerative Sciences, LLC, or Regenerative, that became effective in April 2012, we have obtained, among other things, a worldwide (excluding Asia and Argentina), exclusive, royalty-bearing license from Regenerative to utilize or sublicense a certain method for culturing cells for use in treating, among other things, disc and spine conditions, including protruding and bulging discs. The technology that has been licensed is an advanced stem cell culture and injection procedure that may offer relief from lower back pain, buttock and leg pain, and numbness and tingling in the legs and feet. Pursuant to the license agreement, we have also obtained a worldwide, exclusive, royalty-bearing license from Regenerative to utilize or sublicense a certain curved needle device for the administration of specific cells and/or cell products to the disc and/or spine (and other parts of the body). It will be necessary to advance the design of this medical device to facilitate the delivery of substances, including living cells, to specific locations within the body and minimize the potential for damage to nearby structures.

The license agreement provides for the requirement that we achieve certain milestones or pay certain minimum royalty amounts in order to maintain the exclusive nature of the licenses. The license agreement also provides for a royalty-bearing sublicense of certain of the technology to Regenerative for use for certain purposes, including in the United States and the Cayman Islands. Further, the license agreement requires that Regenerative furnish certain training, assistance and consultation services with regard to the licensed technology.



### *Animal Study*

The efficacy and safety of *BRTX-100* has been tested in a degenerative intervertebral rabbit disc model. In this study, 80 rabbits underwent surgery to create a puncture in the discs. Four weeks post surgery, each rabbit had either contrast, a biomaterial carrier or *BRTX-100* injected into the discs. In order to study the biodistribution and efficacy of *BRTX-100*, the rabbits were evaluated at day 56 and day 120.

The key safety findings of the animal study are as follows:

There was no evidence or observation of gross toxicity related to the administration of *BRTX-100* at either time point. The clinical pathology across both groups and time points were within expected normal historical ranges and under the conditions of the test. No abnormalities (including fractures or overt signs of lumbar disc disease) were identified after review of the radiographic images taken at both endpoints for both groups. No toxicity or adverse finding was evident in the systemic tissues or the discs of animals receiving *BRTX-100*.

There was no detectable presence of human cells (*BRTX-100*) observed at the day 56 interim time point. This is consistent with the proposed mechanism of action that *BRTX-100* acts through a paracrine effect of secreted growth and immunomodulation factors.

The key efficacy findings of the animal study are as follows:

*BRTX-100* showed a statistically significant DHI (disc height increase) over the control group at day 120.

*BRTX-100* showed a statistically significant improvement in disc histology over the control group at day 120 as graded by a validated histology scale. *BRTX-100* showed a significant improvement in the cellularity and matrix of the disc when compared to the control at day 120.

### *Clinical Trial*

In December 2014, we held a pre-IND meeting with the FDA's Office of Cellular Tissue and Gene Therapies within the FDA's Center for Biologics, Evaluation and Research. At the meeting, representatives of the FDA commented on our plans for an IND submission and a clinical trial with regard to the disc program. The FDA representatives identified certain necessary pre-clinical research and data as well as various suggestions to modify the clinical trial design. We believe that these comments and suggestions will not materially impact our plans for a clinical trial. In January 2017, we announced that we had submitted an IND application to the FDA to obtain clearance to commence a Phase 2 clinical trial using our lead cell therapy candidate, *BRTX-100*, to treat chronic lower back pain due to

degenerative disc disease related to protruding/bulging discs. In February 2017, we received such clearance from the FDA. We intend to commence such clinical trial during the fourth quarter of 2017. One of the principal investigators for our clinical trial is intended to be Dr. Gregory E. Lutz, our Chief Medical Advisor for Spine Medicine. See Item 10 (“Directors, Executive Officers and Corporate Governance-Scientific Advisors”).

The following describes the Phase 2 clinical trial cleared by the FDA:

A Phase 2 Prospective, Double-Blinded, Placebo Controlled, Randomized Study

#### General

72 patients; randomized 2:1, *BRTX-100* to control

10-20 clinical trial sites

Primary efficacy endpoint at 6 months

Patient follow up at 12 and 24 months

#### Primary Efficacy Endpoint

Responder endpoint - % of patients that meet the improvement in function and reduction in pain threshold

Improvement in function defined as at least a 30% increase in function based on the Oswestry questionnaires (ODI)

Reduction of pain defined as at least a 30% decrease in pain as measured using the Visual Analogue Scale (VAS)

#### Additional or Secondary Endpoints

Quality of life assessment

Evolution of affected disc(s) by magnetic resonance imaging (MRI)

The FDA approval process can be lengthy, expensive and uncertain and there is no guarantee that the clinical trial(s) will be commenced or completed or that the product will ultimately receive approval or clearance. See “Government Regulation” below and Item 7 (“Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors That May Affect Future Results and Financial Condition – Risks Related to Our Cell Therapy Product Development Efforts; and – Risks Related to Government Regulation”).

#### **Metabolic Brown Adipose (Fat) Program**

Since June 2011, we have been engaging in pre-clinical research efforts with respect to a platform technology utilizing brown adipose (fat) derived stem cells for therapeutic purposes. We have labeled this initiative our *ThermoStem Program*.

Brown fat is a specialized adipose (fat) tissue found in the human body that plays a key role in the evolutionarily conserved mechanisms underlying thermogenesis (generation of non-shivering body heat) and energy homeostasis in mammals - long known to be present at high levels in hibernating mammals and human newborns. Recent studies have demonstrated that brown fat is present in the adult human body and may be correlated with the maintenance and regulation of healthy metabolism, thus potentially being involved in caloric regulation. The pre-clinical *ThermoStem Program* involves the use of a cell-based (brown adipose tissue) treatment for metabolic disease, such as type 2 diabetes, obesity, hypertension and other metabolic disorders and cardiac deficiencies. We have had initial success in transplanting the tissue in animals, and we are currently exploring ways to deliver the brown fat tissue into humans. Even though present, BAT mass is very low in healthy adults and even lower in obese populations. Therefore, it may not be sufficient to either naturally impact whole body metabolism, or to be targeted by drugs intended to increase its activity in the majority of the population. Increasing BAT mass is crucial in order to benefit from its metabolic activity and this is what our *ThermoStem Program* seeks to accomplish. We may also identify other naturally occurring and chemically engineered molecules that may enhance brown adipose tissue performance.

Obesity, the abnormal accumulation of white fat tissue, leads to a number of metabolic disorders and is the driving force behind the rise of type 2 diabetes and cardiovascular diseases worldwide. Pharmacological efforts to alter metabolic homeostasis through modulating central control of appetite and satiety have had limited market penetration due to significant psychological and physiological safety concerns directly attributed to modulating these brain centers. Adipose tissue is one of the largest organs in the human body and plays a key role in central energy balance and lipid homeostasis. Two types of adipose tissues are found in mammals, white and brown adipose tissues. White adipose tissue function is to store energy, whereas BAT specializes in energy expenditure. Recent advancements in unraveling the mechanisms that control the induction, differentiation, proliferation, and thermogenic activity of BAT, along with the application of imaging technologies for human BAT visualization, have generated optimism that these advances may provide novel strategies for targeting BAT activation/thermogenesis, leading to efficacious and safe obesity targeted therapies.

We are developing a cell-based therapy to target obesity and metabolic disorders using BADSC. Our goal is to develop a bioengineered implantable brown adipose tissue intended to mimic ones naturally occurring in the human body. We have isolated and characterized a human multipotent stem cell population that resides within BAT depots. We have expanded these stem cells to clinically relevant numbers and successfully differentiated them into functional brown adipocytes. We intend to use adult stem cells that may be differentiated into progenitor or fully differentiated brown adipocytes, or a related cell type, which can be used therapeutically in patients. We are focusing on the development of treatment protocols that utilize allogeneic cells (i.e., stem cells from a genetically similar but not identical donor).

In order to deliver these differentiated cells into target locations *in vivo*, we seeded BADSC onto 3-dimensional biological scaffolds. Pre-clinical animal models of diet-induced obesity, that were transplanted with differentiated BADSC supported by a biological scaffold, presented significant reductions in weight and blood glucose levels compared to saline injected controls. We are identifying technology for *in vivo* delivery in small animal models. Having completed our proof of concept using our BAT in small animals, we are currently developing our next generation BAT. It is anticipated that this next version will contain a higher purity of BADSC, which is expected to increase the therapeutic effect compared to our first generation product. In addition, we are exploring the delivery of the therapeutic using encapsulation technology, which will only allow for reciprocal exchange of small molecules between the host circulation and the BAT implant. We expect that encapsulation may present several advantages over our current biological scaffolds, including prevention of any immune response or implant rejection that might occur in an immunocompetent host and an increase in safety by preventing the implanted cells from invading the host tissues and forming tumors. We have developed promising data on the transplantation of human stem cell-derived tissue engineered brown fat into an encapsulation device to be used as a cell delivery system for our metabolic platform program for the treatment of type 2 diabetes, obesity, hyperlipidemia and hypertension. This advancement may lead to successful transplantation of brown fat in humans. By successfully seeding human BADSC into an encapsulation device, we are advancing the development of our cell therapy program to treat metabolic disorders. This data is expected to progress our program to enable transplanted brown adipose cells to effectively maintain or regulate normal metabolism in humans. We are evaluating the next generation of BAT constructs that will first be tested in small animal models. No assurance can be given that this delivery system will be effective *in vivo* in animals or humans. Our allogeneic brown adipose derived stem cell platform potentially provides a therapeutic and commercial model for the cell-based treatment of obesity and related metabolic disorders.



In June 2012, we entered into an Assignment Agreement with the University of Utah Research Foundation, or the Foundation, and a Research Agreement with the University of Utah, or the Utah Research Agreement. Pursuant to the Assignment Agreement, which provides for royalty payments, we acquired the rights to two provisional patent applications that relate to human brown fat cell lines. No royalty amounts are payable to date. The applications have been converted to a utility application in the United States and several foreign jurisdictions. Pursuant to the Utah Research Agreement, the University of Utah, or the University, provided research services relating to the identification of brown fat tissue and the development and characterization of brown fat cell lines. The Utah Research Agreement provides that all inventions, discoveries, patent rights, information, data, methods and techniques, including all cell lines, cell culture media and derivatives thereof, are owned by us.

In February 2014, our research with regard to the identification of a population of brown adipose derived stem cells was published in *Stem Cells*, a respected stem cell journal.

In March 2014, we entered into a Research Agreement with Pfizer Inc, or the Pfizer Research Agreement, a global pharmaceutical company. Pursuant to the Pfizer Research Agreement, we were engaged to provide research and development services with regard to a joint study of the development and validation of a human brown adipose (fat) cell model. The Pfizer Research Agreement provided for an initial payment to us of \$250,000 and the payment of up to an additional \$525,000 during the two-year term of the Agreement, all of which has been received.

In August 2015, we entered into a one year research collaboration agreement with the University of Pennsylvania with regard to the understanding of brown adipose (fat) biology and its role in metabolic disorders. No amounts are payable by or to us pursuant to this agreement.

In September 2015, a United States patent related to the *ThermoStem Program* was issued to us.

Following our research activities, we intend to undertake preclinical studies in order to determine whether our proposed treatment protocol is safe. Such studies are planned to begin by the third quarter of 2017. Following the completion of such studies, if required, we intend to file an IND with the FDA and initiate a clinical trial. See “Government Regulation” below and Item 7 (“Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors That May Affect Future Results and Financial Condition – Risks Related to Our Cell Therapy Product Development Efforts; and – Risks Related to Government Regulation”). The FDA approval process can be lengthy, expensive and uncertain and there is no guarantee of ultimate approval or clearance.

We anticipate that much of our development work in this area will take place at our laboratory facility, outside core facilities at academic, research or medical institutions, or contractors. See “Laboratory” below.

### **Curved Needle Device**

Pursuant to the Regenerative license agreement discussed under “Disc/Spine Program-License” above, we have licensed and further developed a curved needle device, or CND, that is a needle system with a curved inner cannula to allow access to difficult-to-locate regions for the delivery or removal of fluids and other substances. The CND is intended to deliver stem cells and/or other therapeutic products or material to the interior of a human intervertebral disc, the spine region, or potentially other areas of the body. The device relies on the use of pre-curved nested cannulae that allow the cells or material to be deposited in the posterior and lateral aspects of the disc to which direct access is not possible due to outlying structures such as vertebra, spinal cord and spinal nerves. We anticipate that the use of the CND will facilitate the delivery of substances, including living cells, to specific locations within the body and minimize the potential for damage to nearby structures. The device may also have more general use applications. In August 2015, a United States patent for the CND was issued to the licensor, Regenerative Sciences, LLC. We anticipate that FDA approval or clearance will be necessary for the CND prior to commercialization. See “Government Regulation” below and Item 7 (“Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors That May Affect Future Results and Financial Condition – Risks Related to Our Cell Therapy Product Development Efforts; and – Risks Related to Government Regulation”). The FDA review and approval process can be lengthy, expensive and uncertain and there is no guarantee of ultimate approval or clearance.

### **Laboratory**

We have established a laboratory in Melville, New York for research purposes and have built a cleanroom within the laboratory for the possible production of cell-based therapies, such as *BRTX-100*, for use in a clinical trial. We intend to certify the operation of the cleanroom by the third quarter of 2017.

As operations grow, our plans include the expansion of our laboratory to perform cellular characterization and culturing, product, protocol and stem cell-related IP development, translational research and therapeutic outcome analysis. As we develop our business and additional stem cell treatments are approved, we will seek to establish ourselves as a key provider of adult stem cells for therapies and expand to provide cells in other market areas for stem cell therapy. We may also use outside laboratories specializing in cell therapy services and manufacturing of cell products.

### **Technology; Research and Development**



We intend to utilize our laboratory or a third party laboratory in connection with cellular research activities. We also intend to seek to obtain cellular-based therapeutic technology licenses and increase our IP portfolio. We intend to seek to develop potential stem cell delivery systems or devices. The goal of these specialized delivery systems or devices is to deliver cells into specific areas of the body, control the rate, amount and types of cells used in a treatment, and populate these areas of the body with sufficient stem cells so that there is a successful therapeutic result.

We also intend to perform research to develop certain stem cell optimization compounds, media or “recipes” to enhance cellular growth and regeneration for the purpose of improving pre-treatment and post-treatment outcomes.

We have two pending United States patent applications with regard to two patent families. We have been issued a United States patent with regard to one of the two patent families. Patent applications with regard to one patent family have been filed in five foreign jurisdictions (of which one application has become inactive). In addition, a Patent Cooperation Treaty, or PCT, application has been filed with regard to a second patent family and such PCT application has been filed in four foreign jurisdictions. Regenerative has filed two patent applications with regard to the technology that is the subject of the license agreement between us (see “Disc/Spine Program-License” above). Regenerative has been issued a patent with regard to its curved needle therapeutic delivery device. Our patent applications and those of Regenerative are currently in prosecution (i.e., we and Regenerative are seeking issued patents). A description of the patent applications and issued patents is set forth below:

| <b>Program</b>    | <b>I.D.</b>                       | <b>Jurisdiction</b>       | <b>Title</b>  |
|-------------------|-----------------------------------|---------------------------|---|
| <i>Disc/Spine</i> | 13/132,840*                       | US                        | Methods and compositions to facilitate repair of avascular tissue |
|                   | U.S. Patent No. 9,113,950<br>B2** | US                        | Therapeutic delivery device                                       |
| <i>Metabolic</i>  | U.S. Patent No. 9,133,438         | US                        | Brown fat cell compositions and methods                           |
|                   | 13/932,468                        | US                        |   |
|                   | 2012275335                        | Australia                 |   |
|                   | 12743811.7                        | Europe                    |   |
|                   | 230237                            | Israel                    |   |
|                   | 2014-519026                       | Japan                     | Human brown adipose derived stem cells and uses                   |
|                   | 14/255,595                        | US                        |   |
|                   | PCT/US2014/034540                 | Patent Cooperation Treaty |   |
|                   | 2014253920                        | Australia                 |   |
|                   | 14729769.1                        | Europe                    |   |
| 242150            | Israel                            |                           |   |
| 2016-509105       | Japan                             |                           |   |

\*Patent application filed by licensor, Regenerative Sciences, LLC

\*\*Patent issued to licensor, Regenerative Sciences, LLC

In March 2014, we entered into a Research and Development Agreement with Rohto Pharmaceutical Co., Ltd., a Japanese pharmaceutical company. Pursuant to the Rohto Research and Development Agreement, we were engaged to provide research and development services with regard to stem cells. The Rohto Research and Development Agreement provided for an initial payment to us of \$150,000 and the payment of up to an additional \$100,000 subject to the satisfaction of certain milestones (all of which has been earned and received). The Rohto Research and Development Agreement expired in June 2015.

In March 2014, we entered into the Pfizer Research Agreement, as discussed above under “Metabolic Brown Adipose (Fat) Program”.

We have secured registrations in the U.S. Patent and Trademark Office for the following trademarks:

THERMOSTEM  
STEM CELLUTRITION  
STEM PEARLS, and  
STEM THE TIDES OF TIME.

We also have federal common law rights in the trademarks, BioRestorative Therapies, *BRTX-100*, and other trademarks used in the conduct of our business that are not registered.

Our success will depend in large part on our ability to develop and protect our proprietary technology. We intend to rely on a combination of patent, trade secret and know-how, copyright and trademark laws, as well as confidentiality agreements, licensing agreements, non-compete agreements and other agreements, to establish and protect our proprietary rights. Our success will also depend upon our ability to avoid infringing upon the proprietary rights of others, for if we are judicially determined to have infringed such rights, we may be required to pay damages, alter our services, products or processes, obtain licenses or cease certain activities. We conduct prior rights searches before launching any new product or service to put us in the best position to avoid claims of infringement.

During the years ended December 31, 2016 and 2015, we incurred \$2,883,563 and \$2,105,059, respectively, in research and development expenses.

### **Cosmetic Products**

We have developed a human adult stem cell-derived extract that, when applied to human skin cells, significantly increases the production of collagen and fibronectin, which are proteins that are essential to combating the aging of skin. No arrangements with regard to the commercial distribution of products that utilize our extract as a cosmetic ingredient are currently in place or are under consideration.

We offer plant derived stem cell cosmetic products under the *Stem Pearls* brand. We have not commenced marketing efforts or generated any significant revenue with regard to *Stem Pearls* products.



## Scientific Advisors

We have established a Scientific Advisory Board whose purpose is to provide advice and guidance in connection with scientific matters relating to our business. Our four Scientific Advisory Board members are Dr. Wayne Marasco, Chairman, Dr. Naiyer Imam, Dr. Wayne Olan and Dr. Joy Cavagnaro. In addition, Dr. Gregory Lutz has been retained as our Chief Medical Advisor for Spine Medicine. See Item 10 (“Directors, Executive Officers and Corporate Governance – Scientific Advisors”) for a listing of the principal positions for Drs. Marasco, Imam, Olan, Cavagnaro and Lutz.

## Competition

We will compete with many pharmaceutical, biotechnology, and medical device companies, as well as other private and public stem cell companies involved in the development and commercialization of cell-based medical technologies and therapies.

Regenerative medicine is rapidly progressing, in large part through the development of cell-based therapies or devices designed to isolate cells from human tissues. Most efforts involve cell sources, such as bone marrow, adipose tissue, embryonic and fetal tissue, umbilical cord and peripheral blood and skeletal muscle.

Companies working in the area of regenerative medicine with regard to the disc and spine include, among others, Ito Biologics, Harvest Technologies (acquired by Terumo), Celling Biosciences, Mesoblast, Tissue Genesis, Discgenics and Arthrex. Companies that are developing products and therapies to combat obesity, diabetes and other metabolic disorders including through the use of brown fat, include, among others, Pfizer, AstraZeneca, Genentech (acquired by Roche), Eli Lilly, Amgen, Energesis Pharmaceuticals, Sanofi, Novo Nordisk, Johnson & Johnson, Novartis, GlaxoSmithKline, Bristol-Myers Squibb, Mitsubishi Tanabe Pharma, Takeda Pharmaceutical, Vivus, Arena Pharmaceuticals, Teva Pharmaceuticals, Merck, Blu Pharmaceuticals (acquired by PuraCap Pharmaceutical), BioTime, Merz Pharmaceuticals, ViaCyte and Regeneron. Many of our competitors and potential competitors have substantially greater financial, technological, research and development, marketing and personnel resources than we do. We cannot, with any accuracy, forecast when or if these companies are likely to bring their products and therapies to market in competition with those that we are pursuing.

With the enactment of the Biologics Price Competition and Innovation Act of 2009, or BPCIA, an abbreviated pathway for the approval of biosimilar and interchangeable biological products was created. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as “interchangeable” based on its similarity to an existing reference product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original

branded product is approved under a biologics license application, or BLA. Although the FDA has approved several biosimilar products, complex provisions of the law are still being implemented by the FDA and interpreted by the federal courts. As a result, the ultimate impact, implementation, and meaning of the BPCIA are still subject to some uncertainty and FDA actions and court decisions concerning the law could have a material adverse effect on the future commercial prospects for our biological products.

We believe that, if any of our product candidates are approved as a biological product under a BLA, it should qualify for the 12-year period of exclusivity. However, there is a risk that the FDA could permit biosimilar applicants to reference approved biologics other than our therapeutic candidates, thus circumventing our exclusivity and potentially creating the opportunity for competition sooner than anticipated. Additionally, this period of regulatory exclusivity does not apply to companies pursuing regulatory approval via their own traditional BLA, rather than via the abbreviated pathway. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

## **Customers**

Our cell and tissue therapeutic products are intended to be marketed to physicians, other health care professionals, hospitals, research institutions, pharmaceutical companies and the military. It is anticipated that physicians who are trained and skilled in performing spinal injections will be the physicians most likely to treat discs with injections of *BRTX-100*. These physicians would include interventional physiatrists (physical medicine physicians), pain management-anesthesiologists, interventional radiologists and neurosurgeons.

## **Governmental Regulation**

### ***U.S. Government Regulation***

The health care industry is highly regulated in the United States. The federal government, through various departments and agencies, state and local governments, and private third-party accreditation organizations regulate and monitor the health care industry, associated products, and operations. The following is a general overview of the laws and regulations pertaining to our business.

### ***FDA Regulation of Stem Cell Treatment and Products***

The FDA regulates the manufacture of human stem cell treatments and associated products under the authority of the Public Health Service Act, or PHSA, and the Federal Food, Drug, and Cosmetic Act, or FDCA. Stem cells can be regulated under FDA's Human Cells, Tissues, and Cellular and Tissue-Based Products Regulations, or HCT/Ps, or may also be subject to FDA's drug, biological product, or medical device regulations, each as discussed below.



*Human Cells, Tissues, and Cellular and Tissue-Based Products Regulation*

Under Section 361 of the PHSA, the FDA issued specific regulations governing the use of HCT/Ps in humans. Pursuant to Part 1271 of Title 21 of the Code of Federal Regulations, or CFR, the FDA established a unified registration and listing system for establishments that manufacture and process HCT/Ps. The regulations also include provisions pertaining to donor eligibility determinations; current good tissue practices covering all stages of production, including harvesting, processing, manufacture, storage, labeling, packaging, and distribution; and other procedures to prevent the introduction, transmission, and spread of communicable diseases.

The HCT/P regulations strictly constrain the types of products that may be regulated solely under these regulations. Factors considered include the degree of manipulation, whether the product is intended for a homologous function, whether the product has been combined with noncellular or non-tissue components, and the product's effect or dependence on the body's metabolic function. In those instances where cells, tissues, and cellular and tissue-based products have been only minimally manipulated, are intended strictly for homologous use, have not been combined with noncellular or nontissue substances, and do not depend on or have any effect on the body's metabolism, the manufacturer is only required to register with the FDA, submit a list of manufactured products, and adopt and implement procedures for the control of communicable diseases. If one or more of the above factors has been exceeded, the product would be regulated as a drug, biological product, or medical device rather than an HCT/P.

Because we are an enterprise in the early stages of operations and have not generated significant revenues from operations, it is difficult to anticipate the likely regulatory status of the array of products and services that we may offer. We believe that some of the adult autologous (self-derived) stem cells that will be used in our cellular therapy and biobanking products and services, including the brown adipose (fat) tissue that we intend to use in our *ThermoStem Program*, may be regulated by the FDA as HCT/Ps under 21 C.F.R. Part 1271. This regulation defines HCT/Ps as articles "containing or consisting of human cells or tissues that are intended for implantation, transplantation, infusion or transfer into a human recipient." However, the FDA may disagree with this position or conclude that some or all of our stem cell therapy products or services do not meet the applicable definitions and exemptions to the regulation. If we are not regulated solely under the HCT/P provisions, we would need to expend significant resources to comply with the FDA's broad regulatory authority under the FDCA. Third party litigation concerning the autologous use of a stem cell mixture to treat musculoskeletal and spinal injuries has increased the likelihood that some of our products and services are likely to be regulated as a drug or biological product and require FDA approval. In the litigation, the FDA asserted that the defendants' use of cultured stem cells without FDA approval is in violation of the FDCA, claiming that the defendants' product is a drug. The defendants asserted that their procedure is part of the practice of medicine and therefore beyond the FDA's regulatory authority. The District Court ruled in favor of the FDA, and in February 2014 the Circuit Court affirmed the District Court's holding.

If regulated solely under the FDA's HCT/P statutory and regulatory provisions, once our laboratory in the United States becomes operational, it will need to satisfy the following requirements, among others, to process and store stem cells:

registration and listing of HCT/Ps with the FDA;

donor eligibility determinations, including donor screening and donor testing requirements;

current good tissue practices, specifically including requirements for the facilities, environmental controls, equipment, supplies and reagents, recovery of HCT/Ps from the patient, processing, storage, labeling and document controls, and distribution and shipment of the HCT/Ps to the laboratory, storage, or other facility;

tracking and traceability of HCT/Ps and equipment, supplies, and reagents used in the manufacture of HCT/Ps;

adverse event reporting;

FDA inspection; and

abiding by any FDA order of retention, recall, destruction, and cessation of manufacturing of HCT/Ps.

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Non-reproductive HCT/Ps and non-peripheral blood stem/progenitor cells that are offered for import into the United States and regulated solely under Section 361 of the PHSA must also satisfy the requirements under 21 C.F.R. § 1271.420. Section 1271.420 requires that the importer of record of HCT/Ps notify the FDA prior to, or at the time of, importation and provide sufficient information for the FDA to make an admissibility decision. In addition, the importer must hold the HCT/P intact and under conditions necessary to prevent transmission of communicable disease until an admissibility decision is made by the FDA.

If the FDA determines that we have failed to comply with applicable regulatory requirements, it can impose a variety of enforcement actions including public warning letters, fines, consent decrees, orders of retention, recall or destruction of product, orders to cease manufacturing, and criminal prosecution. If any of these events were to occur, it could materially adversely affect us.

To the extent that our cellular therapy activities are limited to developing products and services outside the United States, as described in detail below, the products and services would not be subject to FDA regulation, but will be subject to the applicable requirements of the foreign jurisdiction. We intend to comply with all applicable foreign governmental requirements.

#### *Drug and Biological Product Regulation*

An HCT/P product that does not meet the criteria for being solely regulated under Section 361 of the PHSA will be regulated as a drug, device or biological product under the FDCA and/or Section 351 of the PHSA, and applicable FDA regulations. The FDA has broad regulatory authority over drugs and biologics marketed for sale in the United States. The FDA regulates the research, clinical testing, manufacturing, safety, effectiveness, labeling, storage, recordkeeping, promotion, distribution, and production of drugs and biological products. The FDA also regulates the export of drugs and biological products manufactured in the United States to international markets.

For products that are regulated as drugs, an investigational new drug, or IND, application and an approved new drug application, or NDA, are required before marketing and sale in the United States pursuant to the requirements of 21 C.F.R. Parts 312 and 314, respectively. An IND application notifies the FDA of prospective clinical testing and allows the test product to be shipped in interstate commerce. Approval of a NDA requires a showing that the drug is safe and effective for its intended use and that the methods, facilities, and controls used for the manufacturing, processing, and packaging of the drug are adequate to preserve its identity, strength, quality, and purity. If regulated as a biologic, the product must be subject to an IND to conduct clinical trials and a manufacturer must obtain an approved biologics license application, or BLA, before introducing a product into interstate commerce. To obtain a BLA, a manufacturer must show that the proposed product is safe, pure, and potent and that the facility in which the product is manufactured, processed, packed, or held meets established quality control standards.



Drug and biological products must also comply with applicable registration, product listing, and adverse event reporting requirements as well as FDA's general prohibition against misbranding and adulteration. Additionally, the FDA actively enforces regulations prohibiting marketing and promotion of drugs and biologics for indications or uses that have not been approved by the FDA (i.e., "off label" promotion).

In the event that the FDA does not regulate our services in the United States solely under the HCT/P regulation, our products and activities could be regulated as drug or biological products under the FDCA. If regulated as drug or biological products, we will need to expend significant resources to ensure regulatory compliance. If an IND and NDA or BLA are required for any of our products, there is no assurance as to whether or when we will receive FDA approval of the product. The process of designing, conducting, compiling and submitting the non-clinical and clinical studies required for NDA or BLA approval is time-consuming, expensive and unpredictable. The process can take many years, depending on the product and the FDA's requirements.

If the FDA determines that we have failed to comply with applicable regulatory requirements, it can impose a variety of enforcement actions from public warning letters, fines, injunctions, consent decrees and civil penalties to suspension or delayed issuance of approvals, seizure of our products, total or partial shutdown of our production, withdrawal of approvals, and criminal prosecutions. If any of these events were to occur, it could materially adversely affect us.

#### *Medical Device Regulation*

The FDA also has broad authority over the regulation of medical devices marketed for sale in the United States. The FDA regulates the research, clinical testing, manufacturing, safety, labeling, storage, recordkeeping, premarket clearance or approval, promotion, distribution, and production of medical devices. The FDA also regulates the export of medical devices manufactured in the United States to international markets.

Under the FDCA, medical devices are classified into one of three classes- Class I, Class II, or Class III, depending upon the degree of risk associated with the medical device and the extent of control needed to ensure safety and effectiveness. Class I devices are subject to the lowest degree of regulatory scrutiny because they are considered low risk devices and need only comply with the FDA's General Controls. The General Controls include compliance with the registration, listing, adverse event reporting requirements, and applicable portions of the Quality System Regulation as well as the general misbranding and adulteration prohibitions.

Class II devices are subject to the General Controls as well as certain Special Controls such as 510(k) premarket notification. Class III devices are subject to the highest degree of regulatory scrutiny and typically include life supporting and life sustaining devices and implants. They are subject to the General Controls and Special Controls

that include a premarket approval application, or PMA. “New” devices are automatically regulated as Class III devices unless they are shown to be low risk, in which case they may be subject to de novo review to be moved to Class I or Class II. Clinical research of an investigational device is regulated under the investigational device exemption, or IDE, regulations of 21 C.F.R. Part 812. Nonsignificant risk devices are subject to abbreviated requirements that do not require a submission to the FDA but must have Institutional Review Board (IRB) approval and comply with other requirements pertaining to informed consent, labeling, recordkeeping, reporting, and monitoring. Significant risk devices require the submission of an IDE application to the FDA and the FDA’s approval of the IDE application.

The FDA premarket clearance and approval process can be lengthy, expensive and uncertain. It generally takes three to twelve months from submission to obtain 510(k) premarket clearance, although it may take longer. Approval of a PMA could take one to four years, or more, from the time the application is submitted and there is no guarantee of ultimate clearance or approval. Securing FDA clearances and approvals may require the submission of extensive clinical data and supporting information to the FDA. Additionally, the FDA actively enforces regulations prohibiting marketing and promotion of devices for indications or uses that have not been cleared or approved by the FDA. In addition, modifications or enhancements of products that could affect the safety or effectiveness or effect a major change in the intended use of a device that was either cleared through the 510(k) process or approved through the PMA process may require further FDA review through new 510(k) or PMA submissions.

In the event we develop processes, products or services which qualify as medical devices subject to FDA regulation, we intend to comply with such regulations. If the FDA determines that our products are regulated as medical devices and we have failed to comply with applicable regulatory requirements, it can impose a variety of enforcement actions from public warning letters, application integrity proceedings, fines, injunctions, consent decrees and civil penalties to suspension or delayed issuance of approvals, seizure of our products, total or partial shutdown of our production, withdrawal of approvals, and criminal prosecutions. If any of these events were to occur, it could materially adversely affect us.

#### *Current Good Manufacturing Practices and other FDA Regulations of Cellular Therapy Products*

Products that fall outside of the HCT/P regulations and are regulated as drugs, biological products, or devices must comply with applicable good manufacturing practice regulations. The current Good Manufacturing Practices, or cGMPs regulations for drug products are found in 21 C.F.R. Parts 210 and 211; the General Biological Product Standards for biological products are found in 21 C.F.R. Part 610; and the Quality System Regulation for medical devices are found in 21 C.F.R. Part 820. These cGMPs and quality standards are designed to ensure the products that are processed at a facility meet the FDA's applicable requirements for identity, strength, quality, sterility, purity, and safety. In the event that our domestic United States operations are subject to the FDA's drug, biological product, or device regulations, we intend to comply with the applicable cGMPs and quality regulations.

If the FDA determines that we have failed to comply with applicable regulatory requirements, it can impose a variety of enforcement actions from public warning letters, fines, injunctions, consent decrees and civil penalties to suspension or delayed issuance of approvals, seizure of our products, total or partial shutdown of our production, withdrawal of approvals, and criminal prosecutions. If any of these events were to occur, it could materially adversely affect us.



*Good Laboratory Practices*

The FDA prescribes good laboratory practices, or GLPs, for conducting nonclinical laboratory studies that support applications for research or marketing permits for products regulated by the FDA. These regulations are published in Part 58 of Title 21 of the CFR. GLPs are intended to assure the quality and integrity of the safety data filed in research and marketing permits. GLPs provide requirements for organization, personnel, facilities, equipment, testing facilities operation, test and control articles, protocol for nonclinical laboratory study, records, reports, and disqualification by the FDA. To the extent that we are required to, or the above regulation applies, we intend that our nonclinical studies that are intended to support FDA submissions will comply with GLPs.

*Promotion of Foreign-Based Cellular Therapy Treatment—“Medical Tourism”*

We may establish, or license technology to third parties in connection with their establishment of, adult stem cell therapy facilities outside the United States. We also intend to work with hospitals and physicians to make the stem cell-based therapies available for patients who travel outside the United States for treatment. “Medical tourism” is defined as the practice of traveling across international borders to obtain health care.

The Federal Trade Commission, or the FTC, has the authority to regulate and police advertising of medical treatments, procedures, and regimens in the United States under the Federal Trade Commission Act, or the FTCA. Under Sections 5(a) and 12 of the FTCA (15 U.S.C. §§45(a) and 52), the FTC has regulatory authority to prevent unfair and deceptive practices and false advertising. Specifically, the FTC requires advertisers and promoters to have a reasonable basis to substantiate and support claims. The FTC has many enforcement powers, one of which is the power to order disgorgement by promoters deemed in violation of the FTCA of any profits made from the promoted business and can order injunctions from further violative promotion. Advertising that we may utilize in connection with our medical tourism operations will be subject to FTC regulatory authority, and we intend to comply with such regulatory régime. Similar laws and requirements are likely to exist in other countries and we intend to comply with such requirements.

### ***Federal Regulation of Clinical Laboratories***

Congress passed the Clinical Laboratory Improvement Amendments, or CLIA, in 1988, which provided the Centers for Medicare and Medicaid Services, or CMS, authority over all laboratory testing, except research, that is performed on humans in the United States. The Division of Laboratory Services, within the Survey and Certification Group, under the Center for Medicaid and State Operations, or CMSO, has the responsibility for implementing the CLIA program.

The CLIA program is designed to establish quality laboratory testing by ensuring the accuracy, reliability, and timeliness of patient test results. Under CLIA, a laboratory is a facility that does laboratory testing on specimens derived from humans and used to provide information for the diagnosis, prevention, treatment of disease, or impairment of, or assessment of health. Laboratories that handle stem cells and other biologic matter are, therefore, included under the CLIA program. Under the CLIA program, laboratories must be certified by the government, satisfy governmental quality and personnel standards, undergo proficiency testing, be subject to inspections, and pay fees. The failure to comply with CLIA standards could result in suspension, revocation, or limitation of a laboratory's CLIA certificate. In addition, fines or criminal penalties could also be levied. To the extent that our business activities require CLIA certification, we intend to obtain and maintain such certification.

### ***Health Insurance Portability and Accountability Act—Protection of Patient Health Information***

The Health Insurance Portability and Accountability Act of 1996, or HIPAA, included the *Administrative Simplification* provisions that required the Secretary of the Department of Health and Human Services, or HHS, to adopt regulations for the electronic exchange, privacy, and security of individually identifiable health information that HIPAA protects (called "protected health information"). HHS published the *Standards for Privacy of Individually Identifiable Health Information*, or the Privacy Rule, and the *Security Standards for the Protection of Electronic Protected Health Information*, or the Security Rule, to protect the privacy and security of protected health information. The Privacy Rule specifies the required, permitted and prohibited uses and disclosures of an individual's protected health information by health plans, health care clearinghouses, and any health care provider that transmits health information in electronic format (referred to as "covered entities"). The Security Rule establishes a national security standard for safeguarding protected health information that is held or transferred in electronic form (referred to as "electronic protected health information"). The Security Rule addresses the technical and non-technical safeguards that covered entities must implement to secure individuals' electronic protected health information.

In addition to covered entities, the Health Information Technology for Economic and Clinical Health Act, or the HITECH Act, made certain provisions of the Security Rule, as well as the additional requirements the HITECH Act imposed that relate to security or privacy and that are imposed on covered entities, directly applicable as a matter of law to individuals and entities that perform permitted functions on behalf of covered entities when those functions involve the use or disclosure of protected health information. These individuals and entities are called "business

associates.” Covered entities are required to enter into a contract with business associates, called a “business associate agreement,” that also imposes many of the Privacy Rule requirements on business associates as a matter of contract.

Regulations implementing the majority of the requirements created by the HITECH Act were issued in January 2013 (we refer to these regulations as the Final Rule). Among other things, the Final Rule broadened the definition of “business associate” to include subcontractors. As a result, a subcontractor who performs tasks involving the use or disclosure of protected health information on behalf of a business associate must likewise comply with the same obligations as the business associate.

The HITECH Act also established notification requirements in the event that a breach of the protected health information occurs at a covered entity or business associate. These notification obligations mandate that each affected individual whose protected health information was impermissibly accessed receive written notification mailed to his residence of record and that the Secretary of HHS and potentially the media also be notified. HHS, through its Office for Civil Rights, investigates breach reports and determines whether administrative or technical modifications are required and whether civil or criminal sanctions should be imposed. Companies failing to comply with HIPAA and the implementing regulations may also be subject to civil money penalties or in the case of knowing violations, potential criminal penalties, including monetary fines, imprisonment, or both. In some cases, the State Attorneys General may seek enforcement and appropriate sanctions in federal court.

To the extent that we are a covered entity or a business associate of a covered entity, we must comply with HIPAA and the implementing regulations. We must also comply with other additional federal or state privacy laws and regulations that may apply to certain diagnoses, such as HIV/AIDS, to the extent that they apply to us.

### ***Other Applicable U.S. Laws***

In addition to the above-described regulation by United States federal and state government, the following are other federal and state laws and regulations that could directly or indirectly affect our ability to operate the business:

state and local licensure, registration, and regulation of the development of pharmaceuticals and biologics;

state and local licensure of medical professionals;

state statutes and regulations related to the corporate practice of medicine;

laws and regulations administered by U.S. Customs and Border Protection related to the importation of biological material into the United States;

other laws and regulations administered by the FDA;

other laws and regulations administered by HHS;

state and local laws and regulations governing human subject research and clinical trials;

the federal physician self-referral prohibition, also known as Stark Law, and any state equivalents to Stark Law;

the federal Anti-Kickback Statute and any state equivalent statutes and regulations’

federal and state coverage and reimbursement laws and regulations;

state and local laws and regulations for the disposal and handling of medical waste and biohazardous material;

Occupational Safety and Health Administration, or OSHA, regulations and requirements;

the Intermediate Sanctions rules of the IRS providing for potential financial sanctions with respect to “excess benefit transactions” with tax-exempt organizations;

the Physician Payments Sunshine Act (in the event that our products are classified as drugs, biologics, devices or medical supplies and are reimbursed by Medicare, Medicaid or the Children’s Health Insurance Program); and

state and other federal laws addressing the privacy of health information.

### ***Foreign Government Regulation***

In general, we will need to comply with the government regulations of each individual country in which our therapy centers are located and products are to be distributed and sold. These regulations vary in complexity and can be as stringent, and on occasion even more stringent, than FDA regulations in the United States. Due to the fact that there are new and emerging cell therapy and cell banking regulations that have recently been drafted and/or implemented in various countries around the world, the application and subsequent implementation of these new and emerging regulations have little to no precedence. Therefore, the level of complexity and stringency is not always precisely understood today for each country, creating greater uncertainty for the international regulatory process. Furthermore, government regulations can change with little to no notice and may result in up-regulation of our product(s), thereby creating a greater regulatory burden for our cell processing and cell banking technology products. We have not yet thoroughly explored the applicable laws and regulations that we will need to comply with in foreign jurisdictions. It is possible that we may not be permitted to expand our business into one or more foreign jurisdictions.

We do not have any definitive plans or arrangements with respect to the establishment by us of stem cell therapy clinics in any country. We intend to explore any such opportunities as they arise.

## **Offices**

Our principal executive offices are located at 40 Marcus Drive, Melville, New York, and our telephone number is (631) 760-8100. Our website is [www.biorestorative.com](http://www.biorestorative.com). Our internet website and the information contained therein or connected thereto are not intended to be incorporated by reference into this Annual Report.

## **Employees**

We currently have eleven employees all of whom are full-time employees. We believe that our employee relations are good.

## **ITEM 1A. RISK FACTORS.**

Not applicable. See, however, Item 7 (“Management’s Discussion and Analysis of Financial Condition and Results of Operations - Factors That May Affect Future Results and Financial Condition”).

## **ITEM 1B. UNRESOLVED STAFF COMMENTS.**

Not applicable.

## **ITEM 2. PROPERTIES.**

Our principal executive offices and laboratory are located at 40 Marcus Drive, Melville, New York. We occupy 6,800 square feet of space at the premises pursuant to a lease that was entered into in August 2014 and expires in March 2020; we have an option to extend the term of the lease for five years. The lease provides for an annual base rental during the initial term ranging between \$132,600 and \$149,260. Our premises are suitable and adequate for our current operations.

**ITEM 3. LEGAL PROCEEDINGS.**

Not applicable.

**ITEM 4. MINE SAFETY DISCLOSURES.**

Not applicable.

**PART II****ITEM MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS**  
**5. AND ISSUER PURCHASES OF EQUITY SECURITIES.****Market Information**

Transactions in our common stock are currently reported under the symbol "BRTX" on the OTCQB market. The following table sets forth the range of high and low bids reported in the over-the-counter market for our common stock. On July 7, 2015, we effected a 1-for-20 reverse split of our common stock. The prices shown below have been retroactively adjusted to give effect to the reverse split and represent prices in the market between dealers in securities; they do not include retail markup, markdown or commissions, and do not necessarily represent actual transactions.

|                    | High    | Low    |
|--------------------|---------|--------|
| 2015 Calendar Year |         |        |
| First Quarter      | \$9.90  | \$7.00 |
| Second Quarter     | \$9.70  | \$6.00 |
| Third Quarter      | \$12.25 | \$5.50 |
| Fourth Quarter     | \$6.09  | \$2.95 |

|                    | High   | Low    |
|--------------------|--------|--------|
| 2016 Calendar Year |        |        |
| First Quarter      | \$4.45 | \$2.61 |
| Second Quarter     | \$4.48 | \$3.40 |
| Third Quarter      | \$3.91 | \$2.71 |
| Fourth Quarter     | \$3.68 | \$2.90 |

 **Holders**

As of March 15, 2017, there were 288 record holders of our shares of common stock.

**Dividends**



Holders of our shares of common stock are entitled to dividends when, as and if declared by our Board of Directors out of funds legally available.

We have not declared or paid any dividends in the past to the holders of our common stock and do not currently anticipate declaring or paying any dividends in the foreseeable future. We intend to retain earnings, if any, to finance the development and expansion of our business. Future dividend policy will be subject to the discretion of our Board of Directors and will be contingent upon future earnings, if any, our financial condition, capital requirements, general business conditions, and other factors. Therefore, we can give no assurance that any dividends of any kind will ever be paid to holders of our common shares.

**Recent Sales of Unregistered Securities**

During the three months ended December 31, 2016, we issued the following securities in transactions not involving any public offering. For each of the following transactions, we relied upon Section 4(a)(2) of the Securities Act of 1933, as amended, or the Securities Act, as transactions by an issuer not involving any public offering or Section 3(a)(9) of the Securities Act as a security exchanged by an issuer with its existing security holders exclusively where no commission or other remuneration is paid or given directly or indirectly for soliciting such exchange. For each such transaction, we did not use general solicitation or advertising to market the securities, the securities were offered to a limited number of persons, the investors had access to information regarding us (including information contained in our Annual Report on Form 10-K for the year ended December 31, 2015, Quarterly Reports on Form 10-Q for the periods ended March 31, 2016, June 30, 2016 and September 30, 2016 and Current Reports on Form 8-K filed with the Securities and Exchange Commission, and press releases made by us), and we were available to answer questions by prospective investors. We reasonably believe that each of the investors is an accredited investor. The proceeds were used to reduce our working capital deficiency and for other corporate purposes.

| Date Issued       | Common Stock | Warrants<br>Shares | Exercise Price | Term (Years) | Purchaser(s) | Consideration (1) |
|-------------------|--------------|--------------------|----------------|--------------|--------------|-------------------|
| 10/10/16          | 52,658       |                    |                |              | (2 )         | \$ 78,986 (3)     |
| 10/19/16          | 7,500        |                    |                |              | (4 )         | \$ 15,000 (5)     |
| 10/21/16-12/23/16 | 193,323      | 193,323            | 4.00           | 5            | (2 )         | \$ 579,966        |
| 10/24/16          | 13,041       |                    |                |              | (2 )         | \$ 26,212 (6)     |
| 11/7/16           | 10,515       |                    |                |              | (2 )         | \$ 21,047 (6)     |
| 11/22/16          | 10,874       |                    |                |              | (2 )         | \$ 21,140 (6)     |

The value of the non-cash consideration was estimated to be the fair value of our restricted common stock. Since (1) our shares are thinly traded in the open market, the fair value of our equity instruments was estimated by management based on observations of the cash sales prices of both restricted shares and freely tradable shares.

(2) Accredited investor.

(3) Issued in connection with the exchange of notes payable.

(4) Consultant.

(5) Issued in consideration of consulting services.

(6) Issued in connection with the conversion of convertible notes payable.

**Issuer Purchases of Equity Securities**

During the quarter ended December 31, 2016, there were no purchases of common stock made by us or any “affiliated purchaser”.

**ITEM 6. SELECTED FINANCIAL DATA.**

Not applicable.

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

*The following discussion and analysis of the results of operations and financial condition of BioRestorative Therapies, Inc. (and including its subsidiaries, "BRT" or the "Company") as of December 31, 2016 and 2015 and for the years ended December 31, 2016 and 2015 should be read in conjunction with our financial statements and the notes to those financial statements that are included elsewhere in this Annual Report on Form 10-K following Item 16. References in this Management's Discussion and Analysis of Financial Condition and Results of Operations to "us," "we," "our," and similar terms refer to BRT. This Annual Report contains forward-looking statements as that term is defined in the federal securities laws. The events described in forward-looking statements contained in this Annual Report may not occur. Generally these statements relate to business plans or strategies, projected or anticipated benefits or other consequences of our plans or strategies, projected or anticipated benefits from acquisitions to be made by us, or projections involving anticipated revenues, earnings or other aspects of our operating results. The words "may," "will," "expect," "believe," "anticipate," "project," "plan," "intend," "estimate," and "continue," and their opposites and similar expressions, are intended to identify forward-looking statements. We caution you that these statements are not guarantees of future performance or events and are subject to a number of uncertainties, risks and other influences, many of which are beyond our control, which may influence the accuracy of the statements and the projections upon which the statements are based. Reference is made to "Factors That May Affect Future Results and Financial Condition" in this Item 7 for a discussion of some of the uncertainties, risks and assumptions associated with these statements.*

**Overview**

We develop therapeutic products and medical therapies using cell and tissue protocols, primarily involving adult (non-embryonic) stem cells. We are currently pursuing our *Disc/Spine Program* with our initial therapeutic product being called *BRTX-100*. We have obtained a license to use technology for adult stem cell treatment of disc and spine conditions, including protruding and bulging lumbar discs. The technology is an advanced stem cell injection procedure that may offer relief from lower back pain, buttock and leg pain, and numbness and tingling in the legs and feet. We are also developing our *ThermoStem Program*. This pre-clinical program involves the use of brown fat in connection with the cell-based treatment of type 2 diabetes and obesity as well as hypertension, other metabolic disorders and cardiac deficiencies. A United States patent related to the *ThermoStem Program* was issued in September 2015.

We are developing a patented curved needle device, or CND, that is a needle system to allow access to difficult to locate regions for the delivery or removal of fluids and other substances. We also offer stem cell derived cosmetic and skin care products.

Our offices are located in Melville, New York where we have established a laboratory facility in order to increase our capabilities for the further development of possible cellular-based treatments, products and protocols, stem cell-related intellectual property and translational research applications.

As of December 31, 2016, our accumulated deficit was \$41,959,798, our stockholders' deficiency was \$5,000,282 and our working capital deficiency was \$5,783,184. We have historically only generated a modest amount of revenue, our losses have principally been operating expenses incurred in research and development, marketing and promotional activities in order to commercialize our products and services, plus costs associated with meeting the requirements of being a public company. We expect to continue to incur substantial costs for these activities over at least the next year.

Based upon our working capital deficiency as of December 31, 2016 and our forecast for continued operating losses, we require equity and/or debt financing to continue our operations. As of December 31, 2016, our outstanding debt of \$2,336,565, together with interest at rates ranging between 0% and 15% per annum, was due on various dates through October 2017. Subsequent to December 31, 2016 and through March 15, 2017, we have received aggregate equity proceeds (including proceeds from the exercise of common stock purchase warrants) and debt proceeds of \$945,000 and \$200,000, respectively, debt and accrued interest of \$325,000 and \$9,679, respectively, has been converted into or exchanged for common stock, \$89,000 of debt and net short-term advances have been repaid and the due date for the repayment of \$322,000 of debt has been extended through April 2017. Giving effect to the above actions, we currently have notes payable aggregating \$427,500 which are past due. Based upon our working capital deficiency and outstanding debt, we expect to be able to fund our operations through April 2017. We anticipate that we will require between \$8,000,000 and \$10,000,000 in financing to commence and complete a Phase 2 clinical trial with regard to our *Disc/Spine Program*. We anticipate that we will require between \$20,000,000 and \$30,000,000 in further additional funding to complete our clinical trials with regard to our *Disc/Spine Program*. We will also require a substantial amount of additional funding if we determine to establish a manufacturing operation with regard to our *Disc/Spine Program* (as opposed to utilizing a third party manufacturer) and to implement our other programs discussed in "Business", including our metabolic *ThermoStem Program*. No assurance can be given that the anticipated amounts of required funding are correct or that we will be able to accomplish our goals within the timeframes projected. In addition, no assurance can be given that we will be able to obtain any required financing on commercially reasonable terms or otherwise.

We are currently seeking several different financing alternatives to support our future operations and are currently in the process of negotiating extensions or discussing conversions to equity with respect to our outstanding indebtedness. If we are unable to obtain such additional financing on a timely basis or, notwithstanding any request we may make, our debt holders do not agree to convert their notes into equity or extend the maturity dates of their notes, we may have to curtail our development, marketing and promotional activities, which would have a material adverse effect on our business, financial condition and results of operations, and ultimately we could be forced to discontinue our operations and liquidate. See "Liquidity and Capital Resources" below.

## Recent Developments

### IND Application

In January 2017 we announced that we had submitted an investigational new drug, or IND, application to the U.S. Food and Drug Administration, or the FDA, to obtain clearance to commence a Phase 2 clinical trial using our lead cell therapy candidate, *BRTX-100*, to treat chronic lower back pain due to degenerative disc disease related to protruding/bulging discs. In February 2017, we received such clearance from the FDA. We intend to commence such clinical trial during the fourth quarter of 2017. See Item 1 (“Business – Disc/Spine Program”).

## Consolidated Results of Operations

### *Year Ended December 31, 2016 Compared with Year Ended December 31, 2015*

The following table presents selected items in our consolidated statements of operations for the years ended December 31, 2016 and 2015, respectively:

|                            | For the Years Ended,<br>December 31, |             |
|----------------------------|--------------------------------------|-------------|
|                            | 2016                                 | 2015        |
| Revenues                   | \$36,355                             | \$628,915   |
| Cost of sales              | 102                                  | 261,504     |
| Gross Profit               | 36,253                               | 367,411     |
| Operating Expenses         |                                      |             |
| Marketing and promotion    | 86,451                               | 168,352     |
| Consulting                 | 1,605,917                            | 1,394,037   |
| Research and development   | 2,883,563                            | 2,105,059   |
| General and administrative | 3,257,579                            | 3,870,325   |
| Total Operating Expenses   | 7,833,510                            | 7,537,773   |
| Loss From Operations       | (7,797,257)                          | (7,170,362) |

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|  |                      |                      |
|--|----------------------|----------------------|
| Other Income (Expense)                       |                      |                      |
| Interest expense                             | (221,608 )           | (263,583 )           |
| Amortization of debt discount                | (542,336 )           | (339,443 )           |
| Loss on extinguishment of notes payable, net | (58,787 )            | (35,677 )            |
| Warrant modification expense                 | (28,486 )            | (114,415 )           |
| Gain on settlement of payables               | 12,182               | -                    |
| <br>   |                      |                      |
| Total Other Expense                          | (839,035 )           | (753,118 )           |
| <br>   |                      |                      |
| <b>Net Loss</b>                              | <b>\$(8,636,292)</b> | <b>\$(7,923,480)</b> |

*Revenues*

For the year ended December 31, 2016, we generated \$36,000 from royalty revenue in connection with our sublicense agreement and \$355 from sales of *Stem Pearls* skincare products. For the year ended December 31, 2015, we generated \$609,490 of revenues through the services provided pursuant to our research and development agreements, \$19,000 from royalty revenue in connection with our sublicense agreement and \$425 from sales of *Stem Pearls* skincare products. The decrease in our revenues for the year ended December 31, 2016 versus 2015 was primarily due to the completion of our obligations under our research and development agreements as of December 31, 2015, and as of the date of this filing there were no new research and development agreements.



*Cost of sales*

For the year ended December 31, 2016, cost of sales was \$102 as compared to \$261,504 for 2015. For the year ended December 31, 2016, cost of sales consisted of the costs of the underlying *Stem Pearls* skincare products. For the year ended December 31, 2015, cost of sales consisted primarily of the portion of employee salary expense, consultant fees, and laboratory supplies expense related to our research and development agreements. The decrease in our cost of sales for the year ended December 31, 2016 versus 2015 was due to the completion of our obligations under our research and development agreements during 2015.

*Gross Profit*

For the year ended December 31, 2016, gross profit declined to \$36,253 (approximately 100% of revenues) as compared to \$367,411 (58% of revenues) for the year ended December 31, 2015, primarily due to completion of obligations under our research and development agreements during 2015.

*Marketing and promotion*

Marketing and promotion expenses include advertising and promotion, marketing and seminars, meals, entertainment and travel expenses. For the year ended December 31, 2016, marketing and promotion expenses decreased by \$81,901, or 49%, from \$168,352 to \$86,451, as compared to the year ended December 31, 2015. The decrease is primarily due to reduced travel activity and associated costs of approximately \$79,000.

We expect that marketing and promotion expenses will increase in the future as we increase our marketing activities following full commercialization of our products and services.

*Consulting*

Consulting expenses consist of consulting fees and stock-based compensation to consultants. For the year ended December 31, 2016, consulting expenses increased \$211,880, or 15%, from \$1,394,037 to \$1,605,917, as compared to the year ended December 31, 2015. The increase is primarily due to an approximately \$180,000 increase in consultant stock-based compensation expense related to options granted to directors and consultants and a \$75,000 increase in cash director fees related to the appointment of two additional directors in 2016, partially offset by a decrease of

approximately \$43,000 in other cash consulting fees.

*Research and development*

Research and development expenses include cash and non-cash compensation of (a) our Chief Executive Officer (in part during 2015); (b) our Vice President of Research and Development; (c) our Scientific Advisory Board members; (d) our President, Disc/Spine Division; and (e) laboratory staff and costs related to our brown fat and disc/spine initiatives. Research and development expenses are expensed as they are incurred. For the year ended December 31, 2016, research and development expenses increased by \$778,504, from \$2,105,059 to \$2,883,563, or 37%, as compared to the year ended December 31, 2015. The increase is primarily related to an approximately \$560,000 increase in payroll and associated taxes due to salary raises, increased headcount and cash bonuses, an approximately \$196,000 increase in costs related to a third party laboratory associated with our disc/spine initiative, and an approximately \$76,000 increase in stock-based compensation to our Vice President of Research and Development, President, Disc/Spine Division, and Scientific Advisory Board members, partially offset by an approximately \$108,000 decrease due to our Chief Executive Officer no longer devoting time to research and development.

We expect that our research and development expenses will increase with the continuation of the aforementioned initiatives.

*General and administrative*

General and administrative expenses consist primarily of salaries, bonuses, payroll taxes, severance costs and stock-based compensation to employees (excluding any cash or non-cash compensation of (a) our Chief Executive Officer attributable to research and development (through 2015); (b) our Vice President of Research and Development; (c) our President, Disc/Spine Division; and (d) our laboratory staff) as well as corporate support expenses such as legal and professional fees, investor relations and occupancy related expenses. For the year ended December 31, 2016, general and administrative expenses decreased by \$612,746, or 16%, from \$3,870,325 to \$3,257,579, as compared to the year ended December 31, 2015. The decrease is primarily related to decreased professional fees of approximately \$965,000, mainly incurred in connection with our 2015 aborted underwritten public offering and a 2015 legal settlement, partially offset by an increase of approximately \$326,000 in stock-based compensation to employees and our Chief Executive Officer.

We expect that our general and administrative expenses will increase as we expand our staff, develop our infrastructure and incur additional costs to support the growth of our business.

*Interest expense*

For the year ended December 31, 2016, interest expense decreased \$41,975, or 16%, to \$221,608 as compared to \$263,583 during the year ended December 31, 2015. The decrease was due to a reduction in interest-bearing short-term borrowings as compared to the year ended December 31, 2015.

*Amortization of debt discount*

For the year ended December 31, 2016, amortization of debt discount increased by \$202,893 or 60%, to \$542,336 as compared to \$339,443 during the year ended December 31, 2015. The increase was primarily due to the timing of the recognition of expense related to the beneficial conversion features of convertible notes and the recognition of the debt discount expense.

*Loss on extinguishment of notes payable, net*

For the year ended December 31, 2016, we recorded a loss on extinguishment of notes payable, net, of \$58,787, which is associated with investors' exchange of debt into equity securities, as compared to a loss on extinguishment of notes payable of \$35,677 for the year ended December 31, 2015.

*Warrant modification expense*

During the year ended December 31, 2016, we recorded expense related to the modification of outstanding warrants of \$28,486, as compared to expense related to the modification of outstanding warrants of \$114,415 for the year ended December 31, 2015.

*Gain on settlement of payables, net*

During the year ended December 31, 2016, we recorded a gain on settlement of payables, net, of \$12,182. We had no such gains during the year ended December 31, 2015.

**Liquidity and Capital Resources**

***Liquidity***

We measure our liquidity in a number of ways, including the following:

|                            | December 31,  |               |
|----------------------------|---------------|---------------|
|                            | 2016          | 2015          |
| Cash                       | \$31,822      | \$166,555     |
| Working Capital Deficiency | \$(5,783,184) | \$(5,323,179) |

|                       |             |             |
|-----------------------|-------------|-------------|
| Notes Payable (Gross) | \$2,336,565 | \$1,470,083 |
|-----------------------|-------------|-------------|

*Availability of Additional Funds*

Based upon our working capital and stockholders' deficiency of \$5,783,184 and \$5,000,282, respectively, as of December 31, 2016, we require additional equity and/or debt financing to continue our operations. These conditions indicate that there is substantial doubt about our ability to continue as a going concern within the next twelve months from the date of this filing.

As of December 31, 2016, our outstanding debt of \$2,336,565, together with interest at rates ranging between 0% and 15% per annum, was due on various dates through October 2017. Subsequent to December 31, 2016 and through March 15, 2017, we have received aggregate equity proceeds (including proceeds from the exercise of common stock purchase warrants) and debt proceeds of \$945,000 and \$200,000, respectively, debt and accrued interest of \$325,000 and \$9,679, respectively, has been converted into or exchanged for common stock, \$89,000 of debt and net short-term advances have been repaid and the due date for the repayment of \$322,000 of debt has been extended through April 2017. Giving effect to the above actions, we currently have notes payable aggregating \$427,500 which are past due. As of the date of filing, our outstanding debt was as follows:

| Maturity Date | Principal Amount |
|---------------|------------------|
| Past Due      | \$427,500        |
| QE 3/31/2017  | 20,000           |
| QE 6/30/2017  | 428,000          |
| QE 9/30/2017  | 867,000          |
| QE 12/31/2017 | 437,063          |
|               | \$2,179,563      |

Based upon our working capital deficiency, outstanding debt and forecast for continued operating losses we expect that the cash we currently have available will fund our operations through April 2017. Thereafter, we will need to raise further capital, through the sale of additional equity or debt securities, to support our future operations and to repay our debt (unless, if requested, the debt holders agree to convert their notes into equity or extend the maturity dates of their notes). Our operating needs include the planned costs to operate our business, including amounts required to fund working capital and capital expenditures. Our future capital requirements and the adequacy of our available funds will depend on many factors, including our ability to successfully commercialize our products and services, competing technological and market developments, and the need to enter into collaborations with other companies or acquire other companies or technologies to enhance or complement our product and service offerings.

We may be unable to raise sufficient additional capital when we need it or raise capital on favorable terms. Debt financing may require us to pledge certain assets and enter into covenants that could restrict certain business activities or our ability to incur further indebtedness, and may contain other terms that are not favorable to our stockholders or us. If we are unable to obtain adequate funds on reasonable terms, we may be required to significantly curtail or discontinue operations or obtain funds by entering into financing agreements on unattractive terms.

Our consolidated financial statements included elsewhere in this Annual Report on Form 10-K have been prepared in conformity with accounting principles generally accepted in the United States of America, or GAAP, which contemplate our continuation as a going concern and the realization of assets and satisfaction of liabilities in the normal course of business. The carrying amounts of assets and liabilities presented in the financial statements do not necessarily purport to represent realizable or settlement values. The financial statements do not include any adjustment that might result from the outcome of this uncertainty.

During the year ended December 31, 2016, our sources and uses of cash were as follows:

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### ***Net Cash Used in Operating Activities***

We experienced negative cash flow from operating activities for the years ended December 31, 2016 and 2015 in the amounts of \$5,002,675 and \$3,122,063, respectively. The net cash used in operating activities for the year ended December 31, 2016 was primarily due to cash used to fund a net loss of \$8,636,292, adjusted for non-cash expenses in the aggregate amount of \$3,464,871, partially offset by \$168,745 of cash provided by changes in the levels of operating assets and liabilities, primarily as a result of increases in accrued expenses and other liabilities, due to cash constraints during the period. The net cash used in operating activities for the year ended December 31, 2015 was primarily due to cash used to fund a net loss of \$7,923,480, adjusted for non-cash expenses in the aggregate amount of \$2,743,141, partially offset by \$2,058,276 of cash provided by changes in the levels of operating assets and liabilities, primarily as a result of increases in accounts payable plus accrued expenses and other liabilities, due to cash constraints during the period.

### ***Net Cash Used in Investing Activities***

During the year ended December 31, 2016, net cash used in investing activities was \$188,764 used for the purchase of medical equipment. During the year ended December 31, 2015, net cash used in investing activities was \$483,069 due to \$408,069 used for the purchase of medical equipment, leasehold improvements and computer equipment plus \$75,000 used to retain the exclusivity of our disc/spine license.

### ***Net Cash Provided by Financing Activities***

Net cash provided by financing activities during the years ended December 31, 2016 and 2015 was \$5,056,706 and \$3,679,889, respectively. During the year ended December 31, 2016, \$1,345,471 of net proceeds were from debt financings and \$3,711,236 of proceeds were from equity financings (including proceeds received in connection with the exercise of common stock purchase warrants). During the year ended December 31, 2015, \$1,382,045 of net proceeds were from debt financings and \$2,297,844 of proceeds were from equity financings (including proceeds received in connection with the exercise of common stock purchase warrants).

## **Critical Accounting Policies and Estimates**

### ***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 liabilities at dates of the financial statements and the reported amounts of revenue and expenses during the periods. Our significant estimates and assumptions include the recoverability and useful lives of long-lived assets, the fair value of our equity securities and the valuation allowance related to our deferred tax assets. Certain of our estimates, including the carrying amount of the intangible assets, could be affected by external conditions, including those unique to us and general economic conditions. It is reasonably possible that these external factors could have an effect on our estimates and could cause actual results to differ from those estimates.

### *Intangible Assets*

Intangible assets are comprised of trademarks and licenses with original estimated useful lives of 10 and 17.7 years, respectively. Once placed into service, we amortize the cost of the intangible assets over their estimated useful lives on a straight-line basis.

### *Impairment of Long-lived Assets*

We review for the impairment of long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment loss would be recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. While our near term liquidity is tight, historically we have been successful in raising capital as needed (although there can be no assurance that we will continue to be successful in raising capital as needed). We continue to progress our scientific agenda and meet related milestones. We have not identified any impairment losses.

### *Income Taxes*

We recognize deferred tax assets and liabilities for the expected future tax consequences of items that have been included or excluded in our financial statements or tax returns. Deferred tax assets and liabilities are determined on the basis of the difference between the tax basis of assets and liabilities and their respective financial reporting amounts (“temporary differences”) at enacted tax rates in effect for the years in which the temporary differences are expected to reverse.

We adopted the provisions of Accounting Standards Codification (“ASC”) Topic 740-10, which prescribes a recognition threshold and measurement process for financial statements recognition and measurement of a tax position taken or expected to be taken in a tax return.

### *Stock-Based Compensation*

We measure the cost of services received in exchange for an award of equity instruments based on the fair value of the award. For employees and directors, the fair value of the award is measured on the grant date and for non-employees, the fair value of the award is generally re-measured on vesting dates and interim financial reporting dates until the service period is complete. The fair value amount is then recognized over the period during which services are required to be provided in exchange for the award, usually the vesting period. Since the shares underlying our 2010 Equity Participation Plan, or the Plan, were registered on May 27, 2014, we estimate the fair value of the awards granted under the Plan based on the market value of our freely tradable common stock as reported on the OTCQB market. The fair value of our restricted equity instruments was estimated by management based on observations of the cash sales prices of both restricted shares and freely tradable shares. Awards granted to directors are treated on the same basis as awards granted to employees.

## Recently Issued Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, “Revenue from Contracts with Customers,” (“ASU 2014-09”). ASU 2014-09 supersedes the revenue recognition requirements in ASC 605 - Revenue Recognition and most industry-specific guidance throughout the ASC. The standard requires that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. ASU 2014-09 should be applied retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying ASU 2014-09 recognized at the date of initial application. To allow entities additional time to implement systems, gather data and resolve implementation questions, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, in August 2015, to defer the effective date of ASU No. 2014-09 for one year, which is fiscal years beginning after December 15, 2017. We are currently evaluating the impact of the adoption of ASU 2014-09 on our consolidated financial statements or disclosures.

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” (“ASU 2014-15”). ASU 2014-15 explicitly requires management to evaluate, at each annual or interim reporting period, whether there are conditions or events that exist which raise substantial doubt about an entity’s ability to continue as a going concern and to provide related disclosures. ASU 2014-15 is effective for annual periods ending after December 15, 2016, and annual and interim periods thereafter, with early adoption permitted. The adoption of this standard did not have a material impact on our financial statement disclosures.

In April 2015, the FASB issued ASU No. 2015-03, “Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs”, or ASU 2015-03. ASU 2015-03 amends the existing guidance to require that debt issuance costs be presented in the balance sheet as a deduction from the carrying amount of the related debt liability instead of as a deferred charge. ASU 2015-03 is effective on a retrospective basis for annual and interim reporting periods beginning after December 15, 2015; earlier adoption is permitted. Additionally, in August 2015, the FASB issued guidance expanding the April 2015 update (ASU No. 2015-15). It states that, given the absence of authoritative guidance within the update, the SEC staff would not object to an entity deferring and presenting debt issuance costs as an asset for revolving lines of credit and subsequently amortizing the deferred debt issuance costs ratably over the term of the arrangement, regardless of whether there are any outstanding borrowings on the line of credit. This guidance is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years, with early adoption permitted for financial statements that have not been previously issued. Full retrospective application is required. The adoption of this standard did not have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842)” (“ASU 2016-02”). ASU 2016-02 requires an entity to recognize assets and liabilities arising from a lease for both financing and operating leases. ASU 2016-02 will also require new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. We are currently evaluating ASU 2016-02 and its impact on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, “Compensation – Stock Compensation (Topic 718)” (“ASU 2016-09”). ASU 2016-09 requires an entity to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. ASU 2016-09 is effective for fiscal years beginning after December 15, 2016, with early adoption permitted. We are currently evaluating ASU 2016-09 and its impact on our consolidated financial statements or disclosures.

In April 2016, the FASB issued ASU 2016-10, “Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing” (“ASU 2016-10”). The amendments in this update clarify the following two aspects to Topic 606: identifying performance obligations and the licensing implementation guidance, while retaining the related principles for those areas. The entity first identifies the promised goods or services in the contract and reduces the cost and complexity. An entity evaluates whether promised goods and services are distinct. Topic 606 includes implementation guidance on determining whether an entity’s promise to grant a license provides a customer with either a right to use the entity’s intellectual property (which is satisfied at a point in time) or a right to access the entity’s intellectual property (which is satisfied over time). ASU 2016-10 is effective for fiscal years beginning after December 15, 2017, including interim reporting periods within that reporting period. We are currently evaluating ASU 2016-10 and its impact on our consolidated financial statements or disclosures.

In August 2016, the FASB issued ASU 2016-15, “Statement of Cash Flows (Topic 230) Classification of Certain Cash Receipts and Cash Payments” (“ASU 2016-15”). The new standard will make eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The new standard is effective for fiscal years beginning after December 15, 2017. We will require adoption on a retrospective basis unless it is impracticable to apply, in which case we would be required to apply the amendments prospectively as of the earliest date practicable. We are currently evaluating ASU 2016-15 and its impact on our consolidated financial statements or disclosures.

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

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

### **Factors That May Affect Future Results and Financial Condition**

The risk factors listed in this section provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Readers should be aware that the occurrence of any of the events described in these risk factors could have a material adverse effect on our business, results of operations and financial condition. We undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events, or otherwise.

### **Risks Related to Our Business Generally**

***We have a limited operating history; we have incurred substantial losses since inception; we expect to continue to incur losses for the near term; we have a substantial working capital deficiency and a stockholders' deficiency; we believe these conditions indicate that there is substantial doubt about our ability to continue as a going concern within the next twelve months from the date of this filing; the report of our independent registered public accounting firm contains an explanatory paragraph that expresses substantial doubt about our ability to continue as a going concern.***

We have a limited operating history. Since our inception, we have incurred net losses. As of December 31, 2016, we had a working capital deficiency of \$5,783,184 and stockholders' deficiency of \$5,000,282. We believe these conditions indicate that there is substantial doubt about our ability to continue as a going concern within the next twelve months from the date of this filing. The report of our independent registered public accounting firm with respect to our financial statements as of December 31, 2016 and 2015 and for the years then ended indicates that our financial statements have been prepared assuming that we will continue as a going concern. The report states that, since we have incurred net losses since inception and we need to raise additional funds to meet our obligations and sustain our operations, there is substantial doubt about our ability to continue as a going concern. Our plans in regard to these matters are described in footnote 2 to our audited financial statements as of December 31, 2016 and 2015 and for the years then ended, which are included following Item 16 ("Form 10-K Summary"). Our financial statements do not include any adjustments that might result from the outcome of this uncertainty.

***We will need to obtain a significant amount of financing to initiate and complete our clinical trials and implement our business plan.***

Since our inception, we have not generated significant revenues from our operations and have funded our operations through the sale of our equity securities (approximately \$14,000,000) and debt securities (approximately \$12,000,000). The implementation of our business plan, as discussed in Item 1 (“Business”), will require the receipt of sufficient equity and/or debt financing to purchase necessary equipment, technology and materials, fund our research and development efforts, retire our outstanding debt and otherwise fund our operations. We anticipate that we will require between \$8,000,000 and \$10,000,000 in financing to commence and complete a Phase 2 clinical trial with regard to our *Disc/Spine Program*. We anticipate that we will require between \$20,000,000 and \$30,000,000 in further additional funding to complete our clinical trials using *BRTX-100*. We will also require a substantial amount of additional funding if we determine to establish a manufacturing operation with regard to our *Disc/Spine Program* (as opposed to utilizing a third party manufacturer) and to implement our other programs discussed in Item 1 (“Business”), including our metabolic *ThermoStem Program*. No assurance can be given that the anticipated amounts of required funding are correct or that we will be able to accomplish our goals within the timeframes projected. In addition, no assurance can be given that we will be able to obtain any required financing on commercially reasonable terms or otherwise. In the event we do not obtain the financing required for the above purposes, we may have to curtail our development, marketing and promotional activities, which would have a material adverse effect on our business, financial condition and results of operations, and ultimately we could be forced to discontinue our operations and liquidate.

***We will need to obtain additional financing to satisfy debt obligations.***

As described in Item 7 (“Management’s Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources – Availability of Additional Funds”), as of December 31, 2016, our outstanding debt of \$2,336,565, together with interest at rates ranging between 0% and 15% per annum, are due on various dates through October 2017. Subsequent to December 31, 2016 and through March 15, 2017, we have received aggregate equity proceeds (including proceeds received from the exercise of common stock purchase warrants) and debt proceeds of \$945,000 and \$200,000, respectively, debt and accrued interest of \$325,000 and \$9,679, respectively, has been converted into or exchanged for common stock, \$89,000 of debt and short-term advance have been repaid and the due date for the repayment of \$322,000 of debt has been extended through April 2017. Giving effect to the above actions, we currently have notes payable aggregating \$427,500 which are past due. As of March 15, 2017, the outstanding balance of our debt of \$2,179,563, together with accrued interest, was due and payable between on demand and October 2017. Unless we obtain additional financing or, upon our request, the debt holders agree to convert their debt into equity or extend the maturity dates of the debt, we will not be able to repay such debt. Based upon our working capital deficiency and outstanding debt, we expect to be able to fund our operations through April 2017. Even if we are able to satisfy our debt obligations, our cash balance and the revenues for the foreseeable future from our anticipated operations will not be sufficient to fund the development of our business plan.

***Our business strategy is high-risk.***

We are focusing our resources and efforts primarily on the development of cellular-based products and services which will require extensive cash for research, development and commercialization activities. This is a high-risk strategy because there is no assurance that our products and services, including our *Disc/Spine Program* and our *ThermoStem* metabolic brown fat research initiative, will ever become commercially viable (commercial risk), that we will prevent other companies from depriving us of market share and profit margins by offering services and products based on our inventions and developments (legal risk), that we will successfully manage a company in a new area of business, regenerative medicine, and on a different scale than we have operated in the past (operational risk), that we will be able to achieve the desired therapeutic results using stem and regenerative cells (scientific risk), or that our cash resources will be adequate to develop our products and services until we become profitable, if ever (financial risk). We are using our cash in one of the riskiest industries in the economy (strategic risk). This may make our stock an unsuitable investment for many investors.

***We will need to enter into agreements in order to implement our business strategy.***

Except for certain license and research and development agreements described in Item 1 (“Business”), we do not have any material agreements or understandings in place with respect to the implementation of our business strategy. No assurances can be given that we will be able to enter into any necessary agreements with respect to the development of our business. Our inability to enter into any such agreements would have a material adverse effect on our results of operations and financial condition.

***We depend on our executive officers and on our ability to attract and retain additional qualified personnel; we do not currently have a Chief Financial Officer.***

Our performance is substantially dependent on the performance of Mark Weinreb, our Chief Executive Officer. We rely upon him for strategic business decisions and guidance. Mr. Weinreb is subject to an employment agreement with us that is scheduled to expire in December 2017. We are also dependent on the performance of Edward Field, President of our Disc/Spine Division, and Francisco Silva, our Vice President of Research and Development, in establishing and developing our products and operations. Mr. Field and Mr. Silva are also subject to employment agreements with us. We do not have any key-man insurance policies on the lives of any of our executive officers. We do not currently have a Chief Financial Officer. Pending the hiring of a Chief Financial Officer, we are utilizing financial consultants with regard to the preparation of our financial statements. We believe that our future success in developing marketable products and services and achieving a competitive position will depend in large part upon whether we can attract and retain additional qualified management and scientific personnel, including a Chief Financial Officer. Competition for such personnel is intense, and there can be no assurance that we will be able to attract and retain such personnel. The loss of the services of Mr. Weinreb, Mr. Field and/or Mr. Silva or the inability



to attract and retain additional personnel, including a Chief Financial Officer, and develop expertise as needed would have a substantial negative effect on our results of operations and financial condition.

***Continued turmoil in the economy could harm our business.***

Negative trends in the general economy, including, but not limited to, trends resulting from an actual or perceived recession, tightening credit markets, increased cost of commodities, actual or threatened military action by the United States and threats of terrorist attacks in the United States and abroad, could cause a reduction of investment in and available funding for companies in certain industries, including ours. Our ability to raise capital has been and may in the future be adversely affected by downturns in current credit conditions, financial markets and the global economy.

***Risks Related to Our Cell Therapy Product Development Efforts***

***Our future success is significantly dependent on the timely and successful development and commercialization of BRTX-100, our lead product candidate for the treatment of chronic lumbar disc disease; if we encounter delays or difficulties in the development of this product candidate, as well as any other product candidates, our business prospects would be significantly harmed.***

We are dependent upon the successful development, approval and commercialization of our product candidates. Before we are able to seek regulatory approval of our product candidates, we must conduct and complete extensive clinical trials to demonstrate their safety and efficacy in humans. Our lead product candidate, *BRTX-100*, is in early stages of development and we only recently received FDA clearance to commence a Phase 2 clinical trial using *BRTX-100* to treat chronic lower back pain due to degenerative disc disease related to protruding/bulging discs.

Clinical testing is expensive, difficult to design and implement, and can take many years to complete. Importantly, a failure of one or more of these or any other clinical trials can occur at any stage of testing. We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to complete our clinical studies, receive regulatory approval or commercialize our cell therapy product candidates, including the following:

suspensions, delays or changes in the design, initiation, enrollment, implementation or completion of required clinical trials; adverse changes in our financial position or significant and unexpected increases in the cost of our clinical development program; changes or uncertainties in, or additions to, the regulatory approval process that require us to alter our current development strategy; clinical trial results that are negative, inconclusive or less than desired as to safety and/or efficacy, which could result in the need for additional clinical studies or the termination of the product's development; delays in our ability to manufacture the product in quantities or in a form that is suitable for any required clinical trials;

intellectual property constraints that prevent us from making, using, or commercializing any of our cell therapy product candidates;

the supply or quality of our product candidates or other materials necessary to conduct clinical trials of these product candidates may be insufficient or inadequate; inability to generate sufficient pre-clinical, toxicology, or other *in vivo* or *in vitro* data to support the initiation of clinical studies;

delays in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical study sites;

delays in obtaining required Institutional Review Board, or IRB, approval at each clinical study site;

imposition of a temporary or permanent clinical hold by regulatory agencies for a number of reasons, including after review of an IND application or amendment, or equivalent application or amendment; as a result of a new safety finding that presents unreasonable risk to clinical trial participants; a negative finding from an inspection of our clinical study operations or study sites; developments on trials conducted by competitors or approved products post-market for related technology that raises FDA concerns about risk to patients of the technology broadly; or if the FDA finds that the investigational protocol or plan is clearly deficient to meet its stated objectives;

difficulty collaborating with patient groups and investigators;

failure by our CROs, other third parties, or us to adhere to clinical study requirements;

failure to perform in accordance with the FDA's current Good Clinical Practices, or cGCP, requirements, or applicable regulatory guidelines in other countries;

delays in having patients qualify for or complete participation in a study or return for post-treatment follow-up;

patients dropping out of a study;

occurrence of adverse events associated with the product candidate that are viewed to outweigh its potential benefits;

changes in the standard of care on which a clinical development plan was based, which may require new or additional trials;

the requirement by the FDA that we conduct additional research or studies, and/or to provide additional preclinical data, prior to or in connection with our clinical trials;

transfer of manufacturing processes from our academic collaborators to larger-scale facilities operated by either a contract manufacturing organization, or CMO, or by us, and delays or failure by our CMOs or us to make any necessary changes to such manufacturing process;

delays in manufacturing, testing, releasing, validating, or importing/exporting sufficient stable quantities of our product candidates for use in clinical studies or the inability to do any of the foregoing; and

the FDA may not accept clinical data from trials that are conducted at clinical sites in countries where the standard of care is potentially different from the United States.

Any inability to successfully complete pre-clinical and clinical development could result in additional costs to us or impair our ability to generate revenue. In addition, if we make manufacturing or formulation changes to our product candidates, we may be required to, or we may elect to, conduct additional studies to bridge our modified product candidates to earlier versions. Clinical study delays could also shorten any periods during which our products have patent protection and may allow our competitors to bring products to market before we do, which could impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

Even if we are able to successfully complete our clinical development program for our product candidates, and ultimately receive regulatory approval to market one or more of the products, we may, among other things:

- obtain approval for indications that are not as broad as the indications we sought;
- have the product removed from the market after obtaining marketing approval;
- encounter issues with respect to the manufacturing of commercial supplies;
- be subject to additional post-marketing testing requirements; and/or
- be subject to restrictions on how the product is distributed or used.

We anticipate that we will not be able to commercialize our *BRTX-100* product for at least five years.

***We may experience delays and other difficulties in enrolling a sufficient number of patients in our clinical trials which could delay or prevent the receipt of necessary regulatory approvals.***

We may not be able to initiate or complete as planned any clinical trials if we are unable to identify and enroll a sufficient number of eligible patients to participate in the clinical trials required by the FDA or other regulatory authorities. We also may be unable to engage a sufficient number of clinical trial sites to conduct our trials.

We may face challenges in enrolling patients to participate in our clinical trials due to the novelty of our cell-based therapies, the size of the patient populations and the eligibility criteria for enrollment in the trial. In addition, some patients may have concerns regarding cell therapy that may negatively affect their perception of therapies under development and their decision to enroll in the trials. Furthermore, patients suffering from diseases within target indications may enroll in competing clinical trials, which could negatively affect our ability to complete enrollment of our trials. Enrollment challenges in clinical trials often result in increased development costs for a product candidate, significant delays and potentially the abandonment of the clinical trial.



***We may have other delays in completing our clinical trials and we may not complete them at all.***

We have not commenced the clinical trials necessary to obtain FDA approval to market *BRTX-100* or any of our other products in development. Our management lacks significant experience in completing clinical trials and bringing a drug through commercialization. Clinical trials for *BRTX-100* and other products in development may be delayed or terminated as a result of many factors, including the following:

patients failing to complete clinical trials due to dissatisfaction with the treatment, side effects or other reasons;

failure by regulators to authorize us to commence a clinical trial;

suspension or termination by regulators of clinical research for many reasons, including concerns about patient safety or our failure, or the failure of our contract manufacturers, to comply with current Good Manufacturing Practices, or cGMP, requirements;

delays or failure to obtain clinical supply for our products necessary to conduct clinical trials from contract manufacturers;

treatment candidates demonstrating a lack of efficacy during clinical trials;

inability to continue to fund clinical trials or to find a partner to fund the clinical trials;

competition with ongoing clinical trials and scheduling conflicts with participating clinicians; and

delays in completing data collection and analysis for clinical trials.

Any delay or failure to complete clinical trials and obtain FDA approval for our product candidates could have a material adverse effect on our cost to develop and commercialize, and our ability to generate revenue from, a particular product candidate.

***The development of our cell therapy product candidates is subject to uncertainty because autologous cell therapy is inherently variable.***

When manufacturing an autologous cell therapy, the number and the composition of the cell population varies from patient to patient. Such variability in the number and composition of these cells could adversely affect our ability to manufacture autologous cell therapies in a cost-effective or profitable manner and meet acceptable product release specifications for use in a clinical trial or, if approved, for commercial sale. As a consequence, the development and regulatory approval process for autologous cell therapy products could be delayed or may never be completed.





***Any disruption to our access to the media (including cell culture media) and reagents we are using in the clinical development of our cell therapy product candidates could adversely affect our ability to perform clinical trials and seek future regulatory submissions.***

Certain media (including cell culture media) and reagents, as well as devices, materials and systems, that we intend to use in our planned clinical trials, and that we may need or use in commercial production, are provided by unaffiliated third parties. Any lack of continued availability of these media, reagents, devices, materials and systems for any reason would have a material adverse effect on our ability to complete these studies and could adversely impact our ability to achieve commercial manufacture of our planned therapeutic products. Although other available sources for these media, reagents, devices, materials and systems may exist in the marketplace, we have not evaluated their cost, effectiveness, or intellectual property foundation and therefore cannot guarantee the suitability or availability of such other potential sources.

***Products that appear promising in research and development may be delayed or may fail to reach later stages of clinical development.***

The successful development of cellular based products is highly uncertain. Product candidates that appear promising in research and development may be delayed or fail to reach later stages of development. Decisions regarding the further development of product candidates must be made with limited and incomplete data, which makes it difficult to ensure or even accurately predict whether the allocation of limited resources and the expenditure of additional capital on specific product candidates will result in desired outcomes. Pre-clinical and clinical data can be interpreted in different ways, and negative or inconclusive results or adverse events during a clinical trial could delay, limit or prevent the development of a product candidate.

***Our clinical trials may fail to demonstrate adequately the safety and efficacy of our product candidates, which would prevent or delay regulatory approval and commercialization.***

The clinical trials of our product candidates are, and the manufacturing and marketing of our products will be, subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where we intend to test and market our product candidates. Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical testing and clinical trials that our product candidates are both safe and effective for use in each target indication. In particular, because our product candidates are subject to regulation as biological drug products, we will need to demonstrate that they are safe, pure, and potent for use in their target indications. Each product candidate must demonstrate an adequate risk versus benefit profile in its intended patient population and for its intended use. The risk/benefit profile required for product licensure will vary depending on these factors and may include decrease or elimination of pain, adequate duration of response, a delay in the progression of the disease, an improvement in function and/or decrease in disability.

In addition, even if such trials are successfully completed, we cannot guarantee that the FDA will interpret the results as we do, and more trials could be required before we submit our product candidates for approval. To the extent that the results of the trials are not satisfactory to the FDA for support of a marketing application, we may be required to expend significant resources, which may not be available to us, to conduct additional trials in support of potential approval of our product candidates.

***We presently lack manufacturing capabilities to produce our product candidates at commercial scale quantities and do not have an alternate manufacturing supply, which could negatively impact our ability to meet any future demand for the products.***

Currently, we expect our laboratory (or a contract laboratory) to provide the cell processing services necessary for clinical production of *BRTX-100* for our disc clinical trial. To date, we have not produced any products at our laboratory. We expect that we would need to significantly expand our manufacturing capabilities to meet potential commercial demand for *BRTX-100* and any other of our product candidates, if approved, as well as any of our other product candidates that might attain regulatory approval. Such expansion would require additional regulatory approvals. Even if we increase our manufacturing capabilities, it is possible that we may still lack sufficient capacity to meet demand. Ultimately, if we are unable to supply our products to meet commercial demand, whether because of processing constraints or other disruptions, delays or difficulties that we experience, sales of the products and their long-term commercial prospects could be significantly damaged.

We do not presently have a third-party manufacturer for *BRTX-100* or any of our other product candidates. If our facilities at which these product candidates would be manufactured or our equipment were significantly damaged or destroyed, or if there were other disruptions, delays or difficulties affecting manufacturing capacity, our planned and future clinical studies and commercial production for these product candidates would likely be significantly disrupted and delayed. It would be both time consuming and expensive to replace this capacity with third parties, particularly since any new facility would need to comply with the regulatory requirements.

Ultimately, if we are unable to supply our cell therapy product candidates to meet commercial demand (assuming commercial approval is obtained), whether because of processing constraints or other disruptions, delays or difficulties that we experience, our production costs could dramatically increase and sales of the product and its long-term commercial prospects could be significantly damaged.

***The commercial potential and profitability of our products are unknown and subject to significant risk and uncertainty.***

Even if we successfully develop and obtain regulatory approval for our cell therapy product candidates, the market may not understand or accept the products, which could adversely affect both the timing and level of future sales. Ultimately, the degree of market acceptance of our product candidates (or any of our future product candidates) will depend on a number of factors, including:

the clinical effectiveness, safety and convenience of the product particularly in relation to alternative treatments;

our ability to distinguish our products (which involve adult cells) from any ethical and political controversies associated with stem cell products derived from human embryonic or fetal tissue; and

the cost of the product, the reimbursement policies of government and third-party payors and our ability to obtain sufficient third-party coverage or reimbursement.

Even if we are successful in achieving sales of our product candidates, it is not clear to what extent, if any, the products will be profitable. The costs of goods associated with production of cell therapy products are significant. In addition, some changes in manufacturing processes or procedures generally require FDA or foreign regulatory authority review and approval prior to implementation. We may need to conduct additional pre-clinical studies and clinical trials to support approval of any such changes. Furthermore, this review process could be costly and time-consuming and could delay or prevent the commercialization of product candidates.

***We may have difficulties in sourcing brown adipose (fat) tissue.***

Our research agreement with the University of Utah (which expired in June 2015) provided an opportunity for us to obtain brown adipose (fat) tissue that we use to identify and characterize brown adipose derived stem cells for use in our pre-clinical *ThermoStem Program*. There is no certainty that we will be able to continue to collect brown adipose samples through relationships that we may establish with other potential sources of brown adipose tissue. The loss of brown tissue procurement would have a material adverse effect upon our ability to advance the *ThermoStem Program*.

***We are required to complete a certain milestone or pay a certain royalty amount to maintain our exclusive license rights with regard to the disc/spine technology. The loss of such exclusive rights would have a material adverse effect upon us.***

Pursuant to our license agreement with Regenerative Sciences, LLC, we must complete a certain milestone or pay a certain royalty amount in order to maintain our exclusive rights with regard to the disc/spine technology. No assurances can be given that we will achieve such milestone or have the funds, if necessary, to pay such royalty amount. Any loss of such exclusive rights would have a material adverse effect upon our business, results of operations and financial condition. See Item 1 (“Business - (b) Business - Disc/Spine Program-License”).

***If safety problems are encountered by us or others developing new stem cell-based therapies, our stem cell initiatives could be materially and adversely affected.***

The use of stem cells for therapeutic indications is still in the very early stages of development. If an adverse event occurs during clinical trials related to one of our proposed products and/or services or those of others, the FDA and other regulatory authorities may halt clinical trials or require additional studies. The occurrence of any of these events would delay, and increase the cost of, our development efforts and may render the commercialization of our proposed products and/or services impractical or impossible.

***Ethical and other concerns surrounding the use of stem cell therapy may negatively impact the public perception of our stem cell products and/or services, thereby suppressing demand for our products and/or services.***

Although our contemplated stem cell business pertains to adult stem cells only, and does not involve the more controversial use of embryonic stem cells, the use of adult human stem cells for therapy could give rise to similar ethical, legal and social issues as those associated with embryonic stem cells, which could adversely affect its acceptance by consumers and medical practitioners. Additionally, it is possible that our business could be negatively impacted by any stigma associated with the use of embryonic stem cells if the public fails to appreciate the distinction between adult and embryonic stem cells. Delays in achieving public acceptance may materially and adversely affect the results of our operations and profitability.

***We are vulnerable to competition and technological change, and also to physicians' inertia.***

We will compete with many domestic and foreign companies in developing our technology and products, including biotechnology, medical device and pharmaceutical companies. Many current and potential competitors have substantially greater financial, technological, research and development, marketing, and personnel resources. There is no assurance that our competitors will not succeed in developing alternative products and/or services that are more effective, easier to use, or more economical than those which we may develop, or that would render our products and/or services obsolete and non-competitive. In general, we may not be able to prevent others from developing and marketing competitive products and/or services similar to ours or which perform similar functions or which are marketed before ours.

Competitors may have greater experience in developing products, therapies or devices, conducting clinical trials, obtaining regulatory clearances or approvals, manufacturing and commercialization. It is possible that competitors may obtain patent protection, approval, or clearance from the FDA or achieve commercialization earlier than we can, any of which could have a substantial negative effect on our business.

We will compete against cell-based therapies derived from alternate sources, such as bone marrow, adipose tissue, umbilical cord blood and potentially embryos. Doctors historically are slow to adopt new technologies like ours, whatever the merits, when older technologies continue to be supported by established providers. Overcoming such inertia often requires very significant marketing expenditures or definitive product performance and/or pricing superiority.

We expect that physicians' inertia and skepticism will also be a significant barrier as we attempt to gain market penetration with our future products and services. We may need to finance lengthy time-consuming clinical studies (so as to provide convincing evidence of the medical benefit) in order to overcome this inertia and skepticism.

***We may form or seek collaborations or strategic alliances or enter into additional licensing arrangements in the future, and we may not realize the benefits of such alliances or licensing arrangements.***

We may form or seek strategic alliances, create joint ventures or collaborations, or enter into additional licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to our product candidates and any future product candidates that we may develop. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute the shares of our existing stockholders, or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is

time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for our product candidates because they may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view our product candidates as having the requisite potential to demonstrate safety and efficacy.



Further, collaborations involving our product candidates, such as our collaborations with third-party research institutions, are subject to numerous risks, which may include the following:

collaborators have significant discretion in determining the efforts and resources that they will apply to a collaboration;

collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus due to the acquisition of competitive products, availability of funding, or other external factors, such as a business combination that diverts resources or creates competing priorities;

collaborators may delay clinical trials, provide insufficient funding for a clinical trial, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials, or require a new formulation of a product candidate for clinical testing;

collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates;

a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to their marketing and distribution;

collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;

disputes may arise between us and a collaborator that cause the delay or termination of the research, development or commercialization of our product candidates, or that result in costly litigation or arbitration that diverts management attention and resources;

collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates; and

collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such intellectual property.

As a result, if we enter into collaboration agreements and strategic partnerships or license our products or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture, which could delay our timelines or otherwise adversely affect our business. We also cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction. Any delays in entering into new collaborations or strategic partnership agreements related to our product candidates could delay the development and commercialization of our product candidates in certain geographies for certain indications, which would harm our business prospects, financial condition, and results of operations.



***We have limited experience in the development and marketing of cell therapies and may be unsuccessful in our efforts to establish a profitable business.***

Over the past six years, our business plan has been focused on capturing a piece of the burgeoning field of cell therapy. We have limited experience in the areas of cell therapy product development and marketing, and in the related regulatory issues and processes. Although we have recruited a team that has experience with designing and conducting clinical trials, as a company, we have limited experience in conducting clinical trials and no experience in conducting clinical trials through to regulatory approval of any product candidate. In part because of this lack of experience, we cannot be certain that planned clinical trials will begin or be completed on time, if at all. We cannot assure that we will successfully achieve our clinical development goals or fulfill our plans to capture a piece of the cell therapy market.

***Our cell therapy business is based on novel technologies that are inherently expensive, risky and may not be understood by or accepted in the marketplace, which could adversely affect our future value.***

The clinical development, commercialization and marketing of cell and tissue-based therapies are at an early-stage, substantially research-oriented, and financially speculative. To date, very few companies have been successful in their efforts to develop and commercialize a cell therapy product. In general, cell-based or tissue-based products may be susceptible to various risks, including undesirable and unintended side effects, unintended immune system responses, inadequate therapeutic efficacy, or other characteristics that may prevent or limit their approval or commercial use. In addition, *BRTX-100* is a cell-based candidate that is produced by using a patient's own stem cells derived from bone marrow. Regulatory approval of novel product candidates such as *BRTX-100*, which is manufactured using novel manufacturing processes, can be more complex and expensive and take longer than other, more well-known or extensively studied pharmaceutical or biopharmaceutical products, due to the FDA's lack of experience with them. To our knowledge, the FDA has not yet approved a disc related stem cell therapy product. This lack of experience may lengthen the regulatory review process, require us to conduct additional studies or clinical trials, which would increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of these product candidates or lead to significant post-approval limitations or restrictions. Furthermore, the number of people who may use cell or tissue-based therapies is difficult to forecast with accuracy. Our future success is dependent on the establishment of a large global market for cell- and tissue-based therapies and our ability to capture a share of this market with our product candidates.

***Our cell therapy product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.***

With the enactment of the Biologics Price Competition and Innovation Act of 2009, or BPCIA, an abbreviated pathway for the approval of biosimilar and interchangeable biological products was created. The abbreviated

regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as “interchangeable” based on its similarity to an existing reference product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product is approved under a biologics license application, or BLA. Although the FDA has approved several biosimilar products, complex provisions of the law are still being implemented by the FDA and interpreted by the federal courts. As a result, the ultimate impact, implementation, and meaning of the BPCIA are still subject to some uncertainty and FDA actions and court decisions concerning the law could have a material adverse effect on the future commercial prospects for our biological products.

We believe that, if any of our product candidates are approved as a biological product under a BLA, it should qualify for the 12-year period of exclusivity. However, there is a risk that the FDA could permit biosimilar applicants to reference approved biologics other than our therapeutic candidates, thus circumventing our exclusivity and potentially creating the opportunity for competition sooner than anticipated. Additionally, this period of regulatory exclusivity does not apply to companies pursuing regulatory approval via their own traditional BLA, rather than via the abbreviated pathway. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

***We may be subject to significant product liability claims and litigation, including potential exposure from the use of our product candidates in human subjects, and our insurance may be inadequate to cover claims that may arise.***

Our business exposes us to potential product liability risks inherent in the testing, processing and marketing of cell therapy products. Such liability claims may be expensive to defend and result in large judgments against us. We face an inherent risk of product liability exposure related to the testing of our current and any future product candidates in human clinical trials and will face an even greater risk with respect to any commercial sales of our products should they be approved. No product candidate has been widely used over an extended period of time, and therefore safety data is limited. Cell therapy companies derive the raw materials for manufacturing of product candidates from human cell sources, and therefore the manufacturing process and handling requirements are extensive, which increases the risk of quality failures and subsequent product liability claims.

We will need to maintain insurance coverage adequate to cover our clinical trials and increase that coverage before commercializing product candidates, if ever. At any time during our clinical trials or after commercialization, if that occurs, we may not be able to obtain or maintain product liability insurance on acceptable terms with adequate coverage or at all, or if claims against us substantially exceed our coverage, then our financial position could be significantly impaired.

Whether or not we are ultimately successful in any product liability litigation that may arise, such litigation could consume substantial amounts of our financial and managerial resources, result in decreased demand for our products and injure our reputation.

We seek to maintain errors and omissions, directors and officers, workers' compensation and other insurance at levels we believe to be appropriate to our business activities. If, however, we were subject to a claim in excess of this coverage or to a claim not covered by our insurance and the claim succeeded, we would be required to pay the claim from our own limited resources, which could have a material adverse effect on our financial condition, results of operations and business. Additionally, liability or alleged liability could harm our business by diverting the attention and resources of our management and damaging our reputation.



***Our internal computer systems, or those that are expected to be used by our clinical investigators, clinical research organizations or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of development programs for our product candidates.***

We rely on information technology systems to keep financial records, maintain laboratory and corporate records, communicate with staff and external parties and operate other critical functions. Any significant degradation or failure of these computer systems could cause us to inaccurately calculate or lose data. Despite the implementation of security measures, these internal computer systems and those used by our clinical investigators, clinical research organizations, and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war, and telecommunication and electrical failures. The techniques that could be used by criminal elements or foreign governments to attack these computer systems are sophisticated, change frequently and may originate from less regulated and remote areas of the world. While we have not experienced any such system failure, theft of information, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our clinical development activities. For example, the loss of clinical trial data from historical or future clinical trials could result in delays in regulatory approval efforts and significantly increase costs to recover or reproduce the data. To the extent that any disruption, theft of information, or security breach were to result in a loss of or damage to data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the clinical development and the future development of our product candidates could be delayed.

***To operate and sell in international markets carries great risk.***

We intend to market our products and services both domestically and in foreign markets. A number of risks are inherent in international transactions. In order for us to market our products and services in non-U.S. jurisdictions, we need to obtain and maintain required regulatory approvals or clearances in these countries and must comply with the country specific regulations regarding safety, manufacturing processes and quality. These regulations, including the requirements for approvals or clearances to market, may differ from the FDA regulatory scheme. International operations and sales also may be limited or disrupted by political instability, price controls, trade restrictions and changes in tariffs. Additionally, fluctuations in currency exchange rates may adversely affect demand for our services and products by increasing the price of our products and services in the currency of the countries in which the products and services are offered.

There can be no assurance that we will obtain regulatory approvals or clearances in all of the countries where we intend to market our products and services, or that we will not incur significant costs in obtaining or maintaining foreign regulatory approvals or clearances, or that we will be able to successfully commercialize our products and services in various foreign markets. Delays in receipt of approvals or clearances to market our products and services in foreign countries, failure to receive such approvals or clearances or the future loss of previously received approvals or clearances could have a substantial negative effect on our results of operations and financial condition.





***Our inability to obtain reimbursement for our products and services from private and governmental insurers could negatively impact demand for our products and services.***

Successful sales of health care products and services generally depends, in part, upon the availability and amounts of reimbursement from third party healthcare payor organizations, including government agencies, private healthcare insurers and other healthcare payors, such as health maintenance organizations and self-insured employee plans. Uncertainty exists as to the availability of reimbursement for such new therapies as stem cell-based therapies. There can be no assurance that such reimbursement will be available in the future at all or without substantial delay or, if such reimbursement is provided, that the approved reimbursement amounts will be sufficient to support demand for our products and services at a level that will be profitable.

**Risks Related to Our Intellectual Property**

***We may not be able to protect our proprietary rights.***

Our commercial success will depend in large part upon our ability to protect our proprietary rights. There is no assurance, for example, that any additional patents will be issued to us or, if issued, that such patents will not become the subject of a re-examination, will provide us with competitive advantages, will not be challenged by any third parties, or that the patents of others will not prevent the commercialization of products and services incorporating our technology. Furthermore, there can be no guarantee that others will not independently develop similar products and services, duplicate any of our products and services, or design around any patents we obtain.

Our commercial success will also depend upon our ability to avoid infringing patents issued to others. If we were judicially determined to be infringing on any third-party patent, we could be required to pay damages, alter our products, services or processes, obtain licenses, or cease certain activities. If we are required in the future to obtain any licenses from third parties for some of our products and/or services, there can be no guarantee that we would be able to do so on commercially favorable terms, if at all. United States and foreign patent applications are not immediately made public, so we might be surprised by the grant to someone else of a patent on a technology we are actively using. Although we conducted a freedom to operate, or FTO, search on the licensed technology associated with our *Disc/Spine Program*, modifications made, and/or further developments that may be made, to that technology may not be covered by the initial FTO. No FTO has been undertaken with respect to our *ThermoStem* brown fat initiative.

Litigation, which would result in substantial costs to us and the diversion of effort on our part, may be necessary to enforce or confirm the ownership of any patents issued or licensed to us, or to determine the scope and validity of

third-party proprietary rights. If our competitors claim technology also claimed by us and prepare and file patent applications in the United States, we may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office, or the Patent Office, or a foreign patent office to determine priority of invention, which could result in substantial costs and diversion of effort, even if the eventual outcome is favorable to us. Any such litigation or interference proceeding, regardless of outcome, could be expensive and time-consuming.

Successful challenges to our patents through oppositions, re-examination proceedings or interference proceedings could result in a loss of patent rights in the relevant jurisdiction. If we are unsuccessful in actions we bring against the patents of other parties, and it is determined that we infringe upon the patents of third parties, we may be subject to litigation, or otherwise prevented from commercializing potential products and/or services in the relevant jurisdiction, or may be required to obtain licenses to those patents or develop or obtain alternative technologies, any of which could harm our business. Furthermore, if such challenges to our patent rights are not resolved in our favor, we could be delayed or prevented from entering into new collaborations or from commercializing certain products and/or services, which could adversely affect our business and results of operations.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential or sensitive information could be compromised by disclosure in the event of litigation. In addition, during the course of litigation there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

In addition to patents, we intend to also rely on unpatented trade secrets and proprietary technological expertise. Some of our intended future cell-related therapeutic products and/or services may fit into this category. We intend to rely, in part, on confidentiality agreements with our partners, employees, advisors, vendors, and consultants to protect our trade secrets and proprietary technological expertise. There can be no guarantee that these agreements will not be breached, or that we will have adequate remedies for any breach, or that our unpatented trade secrets and proprietary technological expertise will not otherwise become known or be independently discovered by competitors.

Failure to obtain or maintain patent protection, failure to protect trade secrets, third-party claims against our patents, trade secrets, or proprietary rights or our involvement in disputes over our patents, trade secrets, or proprietary rights, including involvement in litigation, could divert our efforts and attention from other aspects of our business and have a substantial negative effect on our results of operations and financial condition.

***We may not be able to protect our intellectual property in countries outside of the United States.***

Intellectual property law outside the United States is uncertain and, in many countries, is currently undergoing review and revisions. The laws of some countries do not protect our patent and other intellectual property rights to the same extent as United States laws. Third parties may attempt to oppose the issuance of patents to us in foreign countries by initiating opposition proceedings. Opposition proceedings against any of our patent filings in a foreign country could have an adverse effect on our corresponding patents that are issued or pending in the United States. It may be necessary or useful for us to participate in proceedings to determine the validity of our patents or our competitors' patents that have been issued in countries other than the United States. This could result in substantial costs, divert our efforts and attention from other aspects of our business, and could have a material adverse effect on our results of operations and financial condition.



***Changes to United States patent law may have a material adverse effect on our intellectual property rights.***

The Leahy-Smith America Invents Act, or AIA, which was signed into law in 2011, significantly changes United States patent law. It may take some time to establish what the law means, since it is just being interpreted by the lower courts, Federal Circuit Courts of Appeal, and the Supreme Court. The effects of these decisions are still not known. The first major change is that AIA switches the United States patent system from a “first to invent” system to a “first to file” system. Now that the first to file system is in effect, there is a risk that another company may independently develop identical or similar patents at approximately the same time, and be awarded the patents instead of us. Further, for the second major change, AIA abolished interference proceedings, and establishes derivation proceedings to replace interference proceedings in all cases in which the time period for instituting an interference proceeding has not lapsed where an inventor named in an earlier application derived the claimed invention from a named inventor. Now that the derivation proceedings are in effect, there is a risk that the inventorship of any pending patent application can be challenged for reasons of derivation. The third major change is that AIA established post-grant opposition proceedings that will apply only to patent applications filed after “first to file” became effective. Post-grant opposition will enable a person who is not the patent owner to initiate proceedings in the Patent Office within nine months after the grant of a patent that can result in cancellation of a patent as invalid. In addition to AIA, recent court decisions have created uncertainty with regard to our ability to obtain and maintain patents. Therefore there is a risk that any of our patents once granted may be subject to post-grant opposition, which will increase uncertainty on the validity of any newly granted patent or may ultimately result in cancellation of the patent.

In addition the Supreme Court has recently taken more limiting positions as to what constitutes patentable subject matter. As a result, many patents covering what were previously patentable inventions are now determined to cover inventions which are deemed non-statutory subject matter and are now invalid. As a result of this and subsequent opinions by the Court of Appeals for the Federal Circuit, the Patent Office is now applying more stringent limitations to claims in patent applications and is refusing to grant patents in areas of technology where patents were previously deemed available. Therefore there is a risk that we will be unable to acquire patents to cover our products and if such patents are granted they may subsequently be found to be invalid.

***In certain countries, patent holders may be required to grant compulsory licenses, which would likely have a significant and detrimental effect on any future revenues in such country.***

Many countries, including some countries in Europe, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, most countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may be limited to monetary relief and may be unable to enjoin infringement, which could materially diminish the value of the patent. Compulsory licensing of life-saving products is also becoming increasingly common in developing countries, either through direct legislation or international initiatives. Such compulsory licenses could be extended to our product candidates, which may limit our potential revenue opportunities, including with respect to any future revenues that may result from our product candidates.



**Risks Related to Government Regulation**

***We operate in a highly-regulated environment and may be unable to comply with applicable federal, state, local, and international requirements. Failure to comply with applicable government regulation may result in a loss of licensure, registration, and approval or other government enforcement actions.***

We intend to develop stem cell based therapeutic products and related device accessories. These products and operations are subject to regulation in the United States by the FDA, the FTC the CMS, state authorities and comparable authorities in foreign jurisdictions. Government regulation is a significant factor affecting the research, development, formulation, manufacture, and marketing of our products. If we fail to comply with applicable regulations, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, operating restrictions and criminal prosecution.

The FDA requires facilities that are engaged in the recovery, processing, storage, labeling, packaging, or distribution of human cells, tissues, cellular and tissue-based products, or HCT/Ps, or in the screening or testing of donors of HCT/Ps to register and list the HCT/Ps that it manufactures, comply with current Good Tissue Practices, or cGTPs, and other procedures to prevent the introduction, transmission, and spread of communicable diseases. Our New York-based laboratory and any treatment centers we may open in the United States may be required to comply with the HCT/P regulations. In addition, any third party retained by us that engages in the manufacture of an HCT/P on our behalf must also comply with the HCT/P regulations. If we or our third-party contractors fail to register, update registration information, or comply with any HCT/P regulation, we will be out of compliance with FDA regulations, which could adversely affect our business. Furthermore, adverse events in the field of stem cell therapy may result in greater governmental regulation, which could create increased expenses, potential delays, or otherwise affect our business.

We believe that some of our products and services may be regulated solely as HCT/Ps; however, it is possible that some or all of our products may be regulated as drugs, medical devices, and/or biological products and therefore will likely require FDA regulatory approval or clearance prior to being marketed in the United States. The FDA approval process can be lengthy, expensive, and uncertain and there is no guarantee of ultimate approval or clearance. Even if our products are approved, FDA regulation of promotional and manufacturing activities can affect our ability to market a drug, biologic or medical device. These products must comply with the applicable current Good Manufacturing Practices (for drug products), Quality System Regulations (for medical devices), or General Biological Product Standards (for biological products) as set forth in Title 21 of the Code of Federal Regulations. These regulations govern the manufacture, processing, packaging, and holding of the products. The FDA conducts inspections to enforce compliance with these regulations. We and any third-party contractor that manufactures these products on our behalf must comply with the applicable regulations. If we or any third party retained by us that engages in the manufacture of a drug, medical device, or biological product fails to comply with the applicable regulations, we will be out of compliance with FDA regulations, which could adversely affect our business. Discovery after FDA approval of previously unknown problems with a product, manufacturer or manufacturing process, or a

failure to comply with regulatory requirements, may result in actions such as:

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warning letters or untitled letters or other actions requiring changes in product manufacturing processes or restrictions on product marketing or distribution;

product recalls or seizures or the temporary or permanent withdrawal of a product from the market; and

fines, restitution or disgorgement of profits or revenue, the imposition of civil penalties or criminal prosecution.

In addition, the FDA regulates and prescribes good laboratory practices, or GLPs, for conducting nonclinical laboratory studies that support applications for research or marketing permits for products regulated by the FDA. GLPs provide requirements for organization, personnel, facilities, equipment, testing, facilities operation, test and control articles, protocol for nonclinical laboratory study, records, reports, and disqualification by the FDA to ensure the quality and integrity of the safety data filed in research and marketing permits. Failure to comply with the GLPs could adversely affect our business.

The FTC regulates and polices advertising in the United States of medical treatments, procedures, and regimens that take place inside and outside of the United States. FTC regulations are designed to prevent unfair and deceptive practices and false advertising. The FTC requires advertisers and promoters to have a reasonable basis to substantiate and support claims. Failure to sufficiently substantiate and support claims can lead to enforcement action by the FTC, such as a disgorgement order of any profits made from the promoted business or an injunction from further violative promotion. Such enforcement actions could have an adverse effect on our business.

State and local governments impose additional licensing and other requirements for clinical laboratories and facilities that collect, process, and administer stem cells. Our laboratory and any future treatment facilities that we may operate in the United States must comply with these additional licensing and other requirements. The licensing regulations require personnel with specific education, experience, training, and other credentials. There can be no assurance that these individuals can be retained or will remain retained or that the cost of retaining such individuals will not materially and adversely affect our ability to operate our business profitably. There can be no assurance that we can obtain the necessary licensure required to conduct business in any state or that the cost of compliance will not adversely affect our ability to operate our business profitably.

CMS has authority to implement the Clinical Laboratories Improvement Amendments, or CLIA, program. When we begin laboratory operations in the United States, we will need to comply with the CLIA program standards. CLIA is designed to establish quality laboratory testing by ensuring the accuracy, reliability, and timeliness of patient test results. Laboratories that handle stem cells and other biologic matter are included under the CLIA program. Under the CLIA program, laboratories must be certified by the government, satisfy governmental quality and personnel standards, undergo proficiency testing, be subject to inspections, and pay fees. The failure to comply with CLIA standards could result in suspension, revocation, or limitation of a laboratory's CLIA certificate. In addition, fines or criminal penalties could also be levied. To the extent that our business activities require CLIA certification, we intend to obtain and maintain such certification. There is no guarantee that we will be able to gain CLIA certification. Failure to gain CLIA certification or comply with the CLIA requirements will adversely affect our business.



The Department of Health and Human Services, or HHS, published the *Standards for Privacy of Individually Identifiable Health Information*, or the Privacy Rule, and the *Security Standards for the Protection of Electronic Protected Health Information*, or the Security Rule, pursuant to the Health Insurance Portability and Accountability Act, or HIPAA. The Privacy Rule specifies the required, permitted and prohibited uses and disclosures of an individual's protected health information by health plans, health care clearinghouses, and any health care provider that transmits health information in electronic format (referred to as covered entities). The Security Rule establishes a national security standard for safeguarding protected health information that is held or transferred in electronic form (referred to as electronic protected health information). The Security Rule addresses the technical and non-technical safeguards that covered entities must implement to secure individuals' electronic protected health information.

In addition to covered entities, the Health Information Technology for Economic and Clinical Health Act, or the HITECH Act, made certain provisions of the Security Rule, as well as the additional requirements the HITECH Act imposed that relate to security and privacy and that are imposed on covered entities, directly applicable as a matter of law to individuals and entities that perform permitted functions on behalf of covered entities when those functions involve the use or disclosure of protected health information. These individuals and entities are referred to as business associates. Covered entities are required to enter into a contract with business associates, called a business associate agreement, that also imposes many of the Privacy Rule requirements on business associates as a matter of contract.

Regulations implementing the majority of the requirements created by the HITECH Act were issued in January 2013 (we refer to these regulations as the Final Rule). Among other things, the Final Rule broadened the definition of business associate to include subcontractors. As a result, a subcontractor who performs tasks involving the use or disclosure of protected health information on behalf of a business associate must likewise comply with the same obligations as the business associate.

The HITECH Act also established notification requirements in the event that a breach of the protected health information occurs at a covered entity or business associate. These notification obligations mandate that each affected individual whose protected health information was impermissibly accessed receive written notification mailed to his residence of record and that the Secretary of HHS and potentially the media also be notified. HHS, through its Office for Civil Rights, investigates breach reports and determines whether administrative or technical modifications are required and whether civil or criminal sanctions should be imposed. Companies failing to comply with HIPAA and the implementing regulations may also be subject to civil money penalties or in the case of knowing violations, potential criminal penalties, including monetary fines, imprisonment, or both. In some cases, the State Attorneys General may seek enforcement and appropriate sanctions in federal court.

To the extent that our business requires compliance with HIPAA, we intend to fully comply with all requirements as well as to other additional federal or state privacy laws and regulations that may apply to us. As HIPAA is amended and changed, we will incur additional compliance burdens. We may be required to spend substantial time and money to ensure compliance with ever-changing federal and state standards as electronic and other means of transmitting protected health information evolve.



In addition to the above-described regulation by United States federal and state government, the following are other federal and state laws and regulations that could directly or indirectly affect our ability to operate the business:

state and local licensure, registration, and regulation of the development of pharmaceuticals and biologics;

state and local licensure of medical professionals;

state statutes and regulations related to the corporate practice of medicine;

laws and regulations administered by U.S. Customs and Border Protection related to the importation of biological material into the United States;

other laws and regulations administered by the FDA;

other laws and regulations administered by HHS;

state and local laws and regulations governing human subject research and clinical trials;

the federal physician self-referral prohibition, also known as Stark Law, and any state equivalents to Stark Law;

the federal Anti-Kickback Statute and any state equivalent statutes and regulations;

federal and state coverage and reimbursement laws and regulations;

state and local laws and regulations for the disposal and handling of medical waste and biohazardous material;

Occupational Safety and Health Administration, or OSHA, regulations and requirements;

the Intermediate Sanctions rules of the IRS providing for potential financial sanctions with respect to “excess benefit transactions” with tax-exempt organizations;

the Physician Payments Sunshine Act (in the event that our products are classified as drugs, biologics, devices or medical supplies and are reimbursed by Medicare, Medicaid or the Children’s Health Insurance Program); and

state and other federal laws governing the privacy of health information.

Any violation of these laws could result in a material adverse effect on our business.

In the event we determine to operate in foreign jurisdictions, we will need to comply with the government regulations of each individual country in which any therapy centers that we may establish are located and products are to be distributed and sold. These regulations vary in complexity and can be as stringent, and on occasion even more stringent, than FDA regulations in the United States. Due to the fact that there are new and emerging cell therapy and cell banking regulations that have recently been drafted and/or implemented in various countries around the world, the application and subsequent implementation of these new and emerging regulations have little to no precedence. Therefore, the level of complexity and stringency is not always precisely understood today for each country, creating greater uncertainty for the international regulatory process. Furthermore, government regulations can change with little to no notice and may result in up-regulation of our products, thereby creating a greater regulatory burden for our cell processing technology products. We have not yet thoroughly explored the applicable laws and regulations that we will need to comply with in foreign jurisdictions. It is possible that we may not be permitted to expand our business into one or more foreign jurisdictions.

We intend to conduct our business in full compliance with all applicable federal, state and local, and foreign laws and regulations. However, the laws and regulations affecting our business are complex, often are not contemplated by existing legal régimes, and are subject to change without notice. As a result, the laws and regulations affecting our business are uncertain and have not been the subject of judicial or regulatory interpretation. Furthermore, stem cells and cell therapy are topics of interest in the government and public arenas. There can be no guarantee that laws and regulations will not be implemented, amended and/or reinterpreted in a way that will negatively affect our business. Likewise, there can be no assurance that we will be able, or will have the resources, to maintain compliance with all such healthcare laws and regulations. Failure to comply with such healthcare laws and regulations, as well as the costs associated with such compliance or with enforcement of such healthcare laws and regulations, may have a material adverse effect on our operations or may require restructuring of our operations or impair our ability to operate profitably.

***The failure to receive regulatory approvals for our cell therapy product candidates would likely have a material and adverse effect on our business and prospects.***

To date, we have not received regulatory approval to market any of our product candidates in any jurisdiction. If we seek approval of any of our cell therapy product candidates, we will be required to submit to the FDA and potentially other regulatory authorities extensive pre-clinical and clinical data supporting its safety and efficacy, as well as information about the manufacturing process and to undergo inspection of our manufacturing facility or other contract manufacturing facilities, among other things. The process of obtaining FDA and other regulatory approvals is expensive, generally takes many years and is subject to numerous risks and uncertainties, particularly with complex and/or novel product candidates such as our cell-based product candidates. Changes in regulatory approval requirements or policies may cause delays in the approval or rejection of an application or may make it easier for our competitors to gain regulatory approval to enter the marketplace. Ultimately, the FDA and other regulatory agencies have substantial discretion in the approval process and may refuse to accept any application or may decide that our product candidate data are insufficient for approval without the submission of additional preclinical, clinical or other studies. In addition, varying agency interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate. Any difficulties or failures that we encounter in securing regulatory approval for our product candidates would likely have a substantial adverse impact on our ability

to generate product sales, and could make any search for a collaborative partner more difficult. Similarly, any regulatory approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

*If we are unable to conduct clinical studies in accordance with regulations and accepted standards, we may be delayed in receiving, or may never receive, regulatory approvals of our product candidates from the FDA and other regulatory authorities.*

To obtain marketing approvals for our product candidates in the United States and abroad, we must, among other requirements, complete adequate and well-controlled clinical trials sufficient to demonstrate to the FDA and other regulatory bodies that the product candidate is safe and effective for each indication for which approval is sought. If the FDA finds that patients enrolled in the trial are or would be exposed to an unreasonable and significant risk of illness or injury, due to, among other things, occurrence of a serious adverse event in an ongoing clinical trial, the FDA can place one or more of our clinical trials on hold. If safety concerns develop, we may, or the FDA or an institutional review board may require us to, stop the affected trials before completion.

The completion of our clinical trials also may be delayed or terminated for a number of other reasons, including if:

third-party clinical investigators do not perform the clinical trials on the anticipated schedule or consistent with the clinical trial protocol, good clinical practices required by the FDA and other regulatory requirements, or other third parties do not perform data collection and analysis in a timely or accurate manner;

inspections of clinical trial sites by the FDA or other regulatory authorities reveal violations that require us to undertake corrective action, suspend or terminate one or more sites, or prohibit use of some or all of the data in support of marketing applications; or

the FDA or one or more institutional review boards suspends or terminates the trial at an investigational site, or precludes enrollment of additional subjects.

Our development costs will increase if there are material delays in our clinical trials, or if we are required to modify, suspend, terminate or repeat a clinical trial. If we are unable to conduct our clinical trials properly, we may never receive regulatory approval to market our product candidates.



***Health care companies have been the subjects of federal and state investigations, and we could become subject to investigations in the future.***

Both federal and state government agencies have heightened civil and criminal enforcement efforts. There are numerous ongoing investigations of health care companies, as well as their executives and managers. In addition, amendments to the federal False Claims Act, or FCA, including under healthcare reform legislation, have made it easier for private parties to bring “*qui tam*” (or whistleblower) lawsuits against companies under which the whistleblower may be entitled to receive a percentage of any money paid to the government. The FCA provides, in part, that an action can be brought against any person or entity that has knowingly presented, or caused to be presented, a false or fraudulent request for payment from the federal government, or who has made a false statement or used a false record to get a claim approved. The government has taken the position that claims presented in violation of the federal anti-kickback law, Stark Law or other healthcare-related laws, including laws enforced by the FDA, may be considered a violation of the FCA. Penalties include substantial fines for each false claim, plus three times the amount of damages that the federal government sustained because of the act of that person or entity and/or exclusion from the Medicare program. In addition, a majority of states have adopted similar state whistleblower and false claims provisions.

We are not aware of any government investigations involving any of our facilities or management. While we believe that we are in material compliance with applicable governmental healthcare laws and regulations, any future investigations of our business or executives could cause us to incur substantial costs, and result in significant liabilities or penalties, as well as damage to our reputation.

***It is uncertain to what extent the government, private health insurers and third-party payors will approve coverage or provide reimbursement for the therapies and products to which our services relate. Availability for such reimbursement may be further limited by reductions in Medicare and Medicaid funding in the United States.***

To the extent that health care providers cannot obtain coverage or reimbursement for our products and therapies, they may elect not to provide such products and therapies to their patients and, thus, may not need our services. Further, as cost containment pressures are increasing in the health care industry, government and private payors may adopt strategies designed to limit the amount of reimbursement paid to health care providers.

Similarly, the trend toward managed health care and bundled pricing for health care services in the United States, could significantly influence the purchase of healthcare products and services, resulting in lower prices and reduced demand for our therapeutic products under development.

We may receive a portion of our revenues from services rendered to patients enrolled in federal health care programs, such as Medicare, and we may also directly or indirectly receive revenues from federal health care programs. Federal health care programs are subject to changes in coverage and reimbursement rules and procedures, including retroactive rate adjustments. These contingencies could materially decrease the range of services covered by such programs or the reimbursement rates paid directly or indirectly for our products and services. To the extent that any health care reform favors the reimbursement of other therapies over our therapeutic products under development, such reform could affect our ability to sell our services, which may have a material adverse effect on our revenues.

The limitation on reimbursement available from private and government payors may reduce the demand for, or the price of, our products and services, which could have a material adverse effect on our revenues. Additional legislation or regulation relating to the health care industry or third-party coverage and reimbursement may be enacted in the future which could adversely affect the revenues generated from the sale of our products and services.

Furthermore, there has been a trend in recent years towards reductions in overall funding for Medicare and Medicaid. There has also been an increase in the number of people who are not eligible for or enrolled in Medicare, Medicaid or other governmental programs. The reduced funding of governmental programs could have a negative impact on the demand for our services to the extent it relates to products and services which are reimbursed by government and private payors.

***Unintended consequences of healthcare reform legislation in the United States may adversely affect our business.***

The healthcare industry is undergoing fundamental changes resulting from political, economic and regulatory influences. In the United States, comprehensive programs are under consideration that seek to, among other things, increase access to healthcare for the uninsured and control the escalation of healthcare expenditures within the economy. In 2010, healthcare reform legislation was signed into law. While we do not believe this legislation will have a direct impact on our business, the legislation requires the adoption of implementing regulations, which may have unintended consequences or indirectly impact our business. For instance, the scope and implications of the amendments pursuant to the Fraud Enforcement and Recovery Act of 2009, or FERA, have yet to be fully determined or adjudicated and as a result it is difficult to predict how future enforcement initiatives may impact our business. If the legislation causes such unintended consequences or indirect impact, it could have a material adverse effect on our business, financial condition and results of operations.

***Competitor companies or hospitals may be able to take advantage of European Union, or EU, rules permitting sales of unlicensed medicines for individual patients to sell competing products without a marketing authorization.***

The EU medicines rules allow individual member states to permit the supply of a medicinal product without a marketing authorization to fulfill special needs, where the product is supplied in response to a bona fide unsolicited order, formulated in accordance with the specifications of a healthcare professional and for use by an individual patient under his direct personal responsibility. This may in certain countries also apply to products manufactured in a country outside the EU and imported to treat specific patients or small groups of patients. In addition, advanced therapy medicinal products do not need a marketing authorization if they are prepared on a non-routine basis and are used within the same EU member state in a hospital in accordance with a medical prescription for an individual patient.

These exemptions could allow our competitors to make sales in the EU without having obtained a marketing authorization and without undergoing the expense of clinical trials, especially if those competitors have cell processing facilities in the relevant EU member state. Similarly, certain hospitals may be able to compete with us on the basis of these rules.



**Risks Related to Our Common Stock**

***We pay no dividends.***

We have never paid cash dividends in the past, and currently do not intend to pay any cash dividends in the foreseeable future.

***There is at present only a limited market for our common stock and there is no assurance that an active trading market for our common stock will develop.***

Although our common stock is quoted on the OTCQB market from time to time, the market for our common stock is extremely limited. Trading prices and volumes on the OTCQB market are thin and erratic. We cannot predict at what price our shares will trade and there can be no assurance that an active market for our shares will develop or, if developed, will be sustained. The volume traded at any one time can be limited, and as a result, there may not be a liquid trading market for our shares. In addition, although there have been market makers in our shares, we cannot assure that these market makers will continue to make a market in our shares or that other factors outside of our control will not cause them to stop market making in our shares. Making a market in shares involves maintaining bid and ask quotations and being able to effect transactions in reasonable quantities at those quoted prices, subject to various securities laws and other regulatory requirements. Furthermore, the development and maintenance of a public trading market depends upon the existence of willing buyers and sellers, the presence of which is not within our control or that of any market maker. Market makers are not required to maintain a continuous two-sided market, are required to honor firm quotations for only a limited number of shares, and are free to withdraw firm quotations at any time. Even with a market maker, factors such as our past losses from operations and the small size of our company mean that there can be no assurance of an active and liquid market for our shares developing in the foreseeable future. Even if a market develops, we cannot assure that a market will continue, or that stockholders will be able to resell their shares at any price.

***Our common stock is classified as a “penny stock”; the restrictions of the penny stock regulations of the Securities and Exchange Commission, or SEC, may result in less liquidity for our common stock.***

The SEC has adopted regulations which define a “penny stock” to be any equity security that has a market price (as therein defined) of less than \$5.00 per share or an exercise price of less than \$5.00 per share, subject to certain exceptions. Based upon the last reported sale price of our common stock on the OTCQB market on March 15, 2017, as of such date, our common stock was a “penny stock”. For any transactions involving a penny stock, unless exempt, the rules require the delivery, prior to any transaction involving a penny stock by a retail customer, of a disclosure schedule prepared by the SEC relating to the penny stock market. Disclosure is also required to be made about

commissions payable to both the broker/dealer and the registered representative and current quotations for the securities. Finally, monthly statements are required to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. If the market price for shares of our common stock remains below \$5.00, and we do not satisfy any of the exceptions to the SEC's definition of penny stock, our common stock will continue to be classified as a penny stock. If such classification should remain in place, as a result of the penny stock restrictions, brokers or potential investors may be reluctant to trade in our securities, which may result in less liquidity for our common stock.

***Because state securities laws may limit secondary trading, stockholders may be restricted as to the states in which they can sell their shares.***

Because state securities laws may limit secondary trading, stockholders may be restricted as to the states in which they can sell their shares. Stockholders may not be able to resell them in any state unless and until the shares are qualified for secondary trading under the applicable securities laws of such state or there is confirmation that an exemption, such as listing in certain recognized securities manuals, is available for secondary trading in such state. There can be no assurance that we will be successful in registering or qualifying our shares for secondary trading, or identifying an available exemption for secondary trading in such shares in every state. If we fail to register or qualify, or to obtain or verify an exemption for the secondary trading of, our shares in any particular state, the shares could not be offered or sold to, or purchased by, a resident of that state. In the event that a significant number of states refuse to permit secondary trading in our shares, the market for the shares will be limited, which could drive down the market price of the shares and reduce the liquidity of the shares and a stockholder's ability to resell the shares at all or at current market prices.

***Stockholders who hold unregistered shares of our common stock are subject to resale restrictions pursuant to Rule 144 due to our former status as a "shell company".***

We previously were a "shell company" pursuant to Rule 144, promulgated under the Securities Act of 1933, as amended, or Rule 144, and, as such, sales of our securities pursuant to Rule 144 cannot be made unless, among other things, we continue to remain subject to Section 13 or 15(d) of the Securities Exchange Act of 1934, or the Exchange Act, and we file all of our required periodic reports with the SEC under the Exchange Act. Because our unregistered securities cannot be sold pursuant to Rule 144 unless we continue to meet such requirements, any unregistered securities we sell in the future or issue to consultants or employees, in consideration for services rendered or for any other purpose, will have no liquidity unless we continue to comply with such requirements. As a result, it may be more difficult for us to obtain financing to fund our operations and pay our consultants and employees with our securities instead of cash.

***We have incurred, and will continue to incur, increased costs as a result of being an SEC reporting company.***

The Sarbanes-Oxley Act of 2002, as well as a variety of related rules implemented by the SEC, have required changes in corporate governance practices and generally increased the disclosure requirements of public companies. As a reporting company, we incur significant legal, accounting and other expenses in connection with our public disclosure and other obligations. Based upon SEC regulations currently in effect, we are required to establish, evaluate and report on our internal control over financial reporting. We believe that compliance with the myriad of rules and regulations applicable to reporting companies and related compliance issues will require a significant amount of time and attention from our management.

***Our stock price may fluctuate significantly and be highly volatile and this may make it difficult for a stockholder to resell shares of our common stock at the volume, prices and times the stockholder finds attractive.***

The market price of our common stock could be subject to significant fluctuations and be highly volatile, which may make it difficult for a stockholder to resell shares of our common stock at the volume, prices and times the stockholder finds attractive. There are many factors that will impact our stock price and trading volume, including, but not limited to, the factors listed above under “Risks Related to Our Business Generally”, “Risks Related to Our Cell Therapy Product Development Efforts”, “Risks Related to Our Intellectual Property”, “Risks Related to Government Regulation”, and “Risks Related to Our Common Stock.”



Stock markets, in general, experience significant price and volume volatility, and the market price of our common stock may continue to be subject to such market fluctuations that may be unrelated to our operating performance and prospects. Increased market volatility and fluctuations could result in a substantial decline in the market price of our common stock.

***There may be future issuances or resales of our common stock which may materially and adversely dilute stockholders' ownership interest and affect the market price of our common stock.***

We are not restricted from issuing additional shares of our common stock in the future, including securities convertible into, or exchangeable or exercisable for, shares of our common stock. Our issuance of additional shares of common stock in the future will dilute the ownership interests of our then existing stockholders.

We have effective registration statements on Form S-8 under the Securities Act registering an aggregate of 4,250,000 shares of our common stock issuable under our 2010 Equity Participation Plan. Options to purchase 2,168,950 shares of our common stock are outstanding under the plan. In addition, 45,000 shares of common stock were issued as restricted stock grant pursuant to the plan. 2,036,050 shares are reserved for future grants under the plan. The shares issuable pursuant to the registration statements on Form S-8 will be freely tradable in the public market, except for shares held by affiliates.

The sale of a substantial number of shares of our common stock or securities convertible into, or exchangeable or exercisable for, shares of our common stock, whether directly by us in this offering or future offerings or by our existing stockholders in the secondary market, the perception that such issuances or resales could occur or the availability for future issuances or resale of shares of our common stock or securities convertible into, or exchangeable or exercisable for, shares of our common stock could materially and adversely affect the market price of our common stock and our ability to raise capital through future offerings of equity or equity-related securities on attractive terms or at all.

In addition, our Board of Directors is authorized to designate and issue preferred stock without further stockholder approval, and we may issue other equity and equity-related securities that are senior to our common stock in the future for a number of reasons, including, without limitation, to support operations and growth, and to comply with any future changes in regulatory standards.

***Anti-takeover provisions and the regulations to which we may be subject may make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to our stockholders.***

We are incorporated in Delaware. Anti-takeover provisions in Delaware law and our certificate of incorporation and bylaws could make it more difficult for a third party to acquire control of us and may prevent stockholders from receiving a premium for their shares of common stock. Our certificate of incorporation provides that our Board of Directors may issue up to 5,000,000 shares of preferred stock, in one or more series, without stockholder approval and with such terms, preferences, rights and privileges as the Board of Directors may deem appropriate. These provisions and other factors may hinder or prevent a change in control, even if the change in control would be beneficial to, or sought by, our stockholders.

***Although we believe that we have complied with state securities laws in all material respects, claims may be made that certain of our securities may have been issued in violation of such laws.***

Since our inception, we have not generated significant revenues from our operations and have funded our operations through the sale of our equity securities and debt securities. These securities were issued by us in isolated transactions not involving a public offering. For each of these transactions, we relied on specific exemptions and safe harbors from the registration requirements of the Securities Act in connection with the offer and sale of such securities under the SEC's rules and regulations, including Section 4(a)(2) of the Securities Act as transactions by an issuer not involving a public offering, Section 3(a)(9) of the Securities Act as securities exchanged by the issuer with its existing security holders exclusively where no commission or other remuneration was paid or given directly or indirectly for soliciting such exchange, and/or Rule 506 of Regulation D of the Securities Act as transactions not involving any public offering. For each such transaction, we did not engage in any general solicitation or advertising to offer or sell any of the securities, the securities were offered by us to a limited number of persons, the investors had access to information regarding us (including information contained in our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K filed with the SEC, and press releases made by us), and we disclosed to prospective investors that we were available to answer questions prior to any purchase. Each investor represented to us that, at the time of its acquisition of its securities from us, it was an accredited investor, as such term is defined under the Securities Act. Accordingly, we believe that the issuances of our securities was not subject to any filing, qualification and/or registration requirements of any state blue sky securities commissions (other than pursuant to certain notification and filing fee requirements). We may have not complied with certain of such notification and filing fee requirements with regard to a substantial portion of the sales of our securities made by us. In addition, certain state securities commissions may claim that we were subject to filing requirements (in addition to the notification and filing fee requirements referred to above) with regard to a substantial portion of the sales of our securities made by us. Although we do not believe that our failure to file notifications or pay fees to or with certain state securities commissions will result in an obligation to offer rescission rights to any such purchaser, and we believe that filing, registration and/or qualification requirements (in addition to the notification and filing fee requirements set forth above) do not apply, claims to such effect may be made by state blue sky regulators and/or individual purchasers. These claims could result in state blue sky regulators commencing enforcement actions against us and/or seeking monetary damages in addition to rescission rights, or individual investors seeking rescission rights and/or additional damages. If we are required to offer rescission rights, in addition to the requirement to offer to repurchase securities for the purchase price paid for such securities by investors, we also could be required to pay interest from the date of issuance, other expenses, penalties and/or other amounts. Moreover, if we were required to offer rescission rights, we may not have sufficient funds to repurchase the securities that are the subject of the rescission offer. Any such claims (whether by state blue sky securities regulators and/or individual purchasers) may result in substantial costs to us including, but not limited to, legal fees and expenses and the diversion of management efforts on our part.

***In the event that a significant amount of our outstanding debt is converted into equity, the percentage ownership of existing stockholders will be substantially diluted.***

As of March 15, 2017, we had outstanding indebtedness in the amount of \$2,179,563. We intend to seek to have the debtholders convert all or a significant amount of such debt into equity. In the event of any such conversion, the

percentage ownership of existing stockholders will be substantially diluted.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.**

Not applicable.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.**

The financial statements required by this Item 8 are included in this Annual Report following Item 16 hereof. As a smaller reporting company, we are not required to provide supplementary financial information.

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

None.

**ITEM 9A. CONTROLS AND PROCEDURES.**

**Disclosure Controls and Procedures**

Disclosure controls are procedures that are designed with the objective of ensuring that information required to be disclosed in our reports filed under the Exchange Act, such as this Annual Report, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls are also designed with the objective of ensuring that such information is accumulated and communicated to our management, including the Principal Executive and Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Internal controls are procedures which are designed with the objective of providing reasonable assurance that (1) our transactions are properly authorized, recorded and reported; and (2) our assets are safeguarded against unauthorized or improper use, to permit the preparation of our consolidated financial statements in conformity with United States generally accepted accounting principles.

In connection with the preparation of this Annual Report, management, with the participation of our Principal Executive and Financial Officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e) and 15d-15(e)). Based upon that evaluation, our Principal Executive and Financial Officer concluded that, as of December 31, 2016, our disclosure controls and procedures were effective.



## **Internal Control over Financial Reporting**

### ***Management's Annual Report on Internal Control over Financial Reporting***

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Internal control over financial reporting is a process designed by, or under the supervision of, our Principal Executive and Financial Officer, and effected by the 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 including those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and the disposition of our assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP and that receipts and expenditures are being made only in accordance with authorizations of our management and Board of Directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

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

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the 2013 framework in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2016.

### ***Changes in Internal Controls***

There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## **Limitations of the Effectiveness of Control**

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations of any control system, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected.

**No Attestation Report of Registered Public Accounting Firm**

This Annual Report does not contain an attestation report of our independent registered public accounting firm regarding internal control over financial reporting since the rules for smaller reporting companies provide for this exemption.

**ITEM 9B. OTHER INFORMATION.**

None.



**PART III****ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.****Directors and Executive Officers**

Information regarding our directors and executive officers is set forth below. Each of our officers devotes his or her full business time in providing services on our behalf.

| <b>Name</b>       | <b>Age</b> | <b>Positions Held</b>  |
|-------------------|------------|--|
| Mark Weinreb      | 64         | Chief Executive Officer, President and Chairman of the Board |
| Edward L. Field   | 52         | President, Disc/Spine Division                               |
| Francisco Silva   | 42         | Vice President of Research and Development                   |
| Mandy D. Clyde    | 35         | Vice President of Operations and Secretary                   |
| Robert B. Catell  | 80         | Director   |
| John M. Desmarais | 53         | Director   |
| A. Jeffrey Radov  | 65         | Director   |
| Charles S. Ryan   | 52         | Director   |
| Paul Jude Tonna   | 58         | Director   |

**Mark Weinreb**

Mark Weinreb has served as our Chief Executive Officer since October 2010, as our President since February 2012 and as our Chairman of the Board since April 2011. From February 2003 to October 2009, Mr. Weinreb served as President of NeoStem, Inc. (now known as Caladrius Biosciences, Inc.), a public international biopharmaceutical company engaged in, among other things, adult stem cell-related operations. From October 2009 to October 2010, he was subject to a non-competition agreement with NeoStem and was not engaged in business. Mr. Weinreb also served as Chief Executive Officer and Chairman of the Board of Directors of NeoStem from February 2003 to June 2006. In 1976, Mr. Weinreb joined Bio Health Laboratories, Inc., a state-of-the-art medical diagnostic laboratory providing clinical testing services for physicians, hospitals, and other medical laboratories. He became the laboratory administrator in 1978 and then an owner and the laboratory's Chief Operating Officer in 1982. In such capacity, he oversaw all technical and business facets, including finance and laboratory science technology. Mr. Weinreb left Bio Health Laboratories in 1989 when the business was sold. In 1992, Mr. Weinreb founded Big City Bagels, Inc., a national chain of franchised upscale bagel bakeries and became Chairman and Chief Executive Officer of such entity. Big City Bagels went public in 1995, and in 1999 Mr. Weinreb redirected the company and completed a merger with an Internet service provider. From 2000 to 2002, Mr. Weinreb served as Chief Executive Officer of Jestertek, Inc. (now known as Gesturetek, Inc.), a software development company pioneering gesture recognition and control using advanced interactive proprietary video technology. Mr. Weinreb received a Bachelor of Arts degree from

Northwestern University and a Master of Science degree in Medical Biology from C.W. Post, Long Island University. We believe that Mr. Weinreb's executive-level management experience, his extensive experience in the adult stem cell sector and his service on our Board since October 2010 give him the qualifications and skills to serve as one of our directors.

**Edward L. Field**

Edward L. Field has served as President of our Disc/Spine Division since February 2015. Mr. Field served as Chief Operating Officer of Cytomedix, Inc. (now known as Nuo Therapeutics, Inc.), a regenerative therapies marketing and development company, from February 2012 to June 2014. From November 2004 to March 2010, Mr. Field served as President and Chief Operating Officer of Aldagen, Inc., a biotechnology company acquired by Cytomedix. From March 2010 to November 2010, he served as Aldagen's Chief Business Officer. From November 2010 to February 2012, Mr. Field served as Aldagen's Chief Operating Officer. From 2002 to September 2004, Mr. Field was President and Chief Executive Officer of Inologic, Inc., a biopharmaceutical company. From 1999 to 2002, he was President of Molecumetics, Ltd., a drug discovery and development subsidiary of Tredegar Corporation, until its merger with Therics, LLC, a regenerative medicine company. Mr. Field received a Master of Business Administration degree from the University of Virginia's Darden School of Business Administration and a Bachelor of Arts degree in Economics from Duke University.

**Francisco Silva**

Francisco Silva has served as our Vice President of Research and Development since March 2013, having also previously served in such position from April 2011 until March 2012. He served as our Research Scientist from March 2012 to June 2012 and as our Chief Scientist from June 2012 to March 2013. From 2007 to 2011, Mr. Silva served as Chief Executive Officer of DV Biologics LLC, and as President of DaVinci Biosciences, LLC, companies engaged in the commercialization of human based biologics for both research and therapeutic applications. From 2003 to 2007, Mr. Silva served as Vice President of Research and Development for PrimeGen Biotech LLC, a company engaged in the development of cell based platforms. From 2002 to 2003, he was a Research Scientist with PrimeGen Biotech and was responsible for the development of experimental designs that focused on germ line reprogramming stem cell platforms. Mr. Silva has taught courses in biology, anatomy and advanced tissue culture at California State Polytechnic University. He has obtained a number of patents relating to stem cells and has had numerous articles published with regard to stem cell research. Mr. Silva graduated from California State Polytechnic University with a degree in Biology. He also obtained a Graduate Presidential Fellowship and MBRS Fellowship from California State Polytechnic University.

**Mandy D. Clyde**

Mandy D. Clyde has been our Vice President of Operations since August 2009. She has served as our Secretary since December 2010 and served on our Board from September 2010 to April 2011. From 2006 to 2009, Ms. Clyde served as Educational Envoy and then CME/CE Coordinator for Professional Resources in Management Education, an accredited provider of continuing medical education. She conducted needs assessments nationally to determine in which areas clinicians most needed current education. She also oversaw onsite educational meetings and analyzed data for outcomes reporting. From 2005 to 2006, Ms. Clyde served as surgical coordinator for Eye Surgery Associates and

the Rand Eye Institute, two prominent physician practices in Florida. Ms. Clyde has experience in medical editing for educational programs and is a published author of advanced scientific and clinical content on topics including Alzheimer's disease, breast cancer, sleep apnea and adult learning. She received a degree in Biology from Mercyhurst College.

**Robert B. Catell**

Robert B. Catell became a member of our Board of Directors in February 2016. Mr. Catell served as Chairman and Chief Executive Officer of KeySpan Corporation and KeySpan Energy Delivery, the former Brooklyn Union Gas, from 1998 to 2007. His career with Brooklyn Union Gas started in 1958. Following National Grid's acquisition of KeySpan Corporation in 2007, Mr. Catell became Chairman of National Grid, U.S. and Deputy Chairman of National Grid plc. Mr. Catell currently serves as Chairman of the Board of the Advanced Energy Research and Technology Center (AERTC) at Stony Brook University, New York State Smart Grid Consortium, Cristo Rey Brooklyn High School, Futures in Education Endowment Fund, and the New York Energy Policy Institute's Advisory Council (NYEPI). He also serves on the NYS Economic Development Power Allocation Board (EDPAB) and the Board of Directors of Applied DNA Sciences, Inc., a company that uses biotechnology as a forensic foundation in creating unique security solutions addressing the challenges of modern commerce. In addition, Mr. Catell serves as a board member of a number of other business, governmental and not-for-profit organizations. Mr. Catell holds both a Master's and Bachelor's degree in Mechanical Engineering from City College of New York. We believe that Mr. Catell's executive-level management experience and his extensive experience in the Long Island community give him the qualifications and skills to serve as one of our directors.

**John M. Desmarais**

John M. Desmarais became a member of our Board of Directors in December 2015. Mr. Desmarais is the founding partner of Desmarais LLP, an intellectual property trial boutique established in 2010, and the founder and owner of Round Rock Research LLC, a patent licensing company. From 1997 to 2009, he was a partner at the international law firm of Kirkland & Ellis LLP and served as a member of the firm's Management Committee from 2004 to 2009. Prior to joining Kirkland, and after practicing in the area of intellectual property litigation and counseling for several years, he left private practice to serve as an Assistant United States Attorney in the Southern District of New York, where for three years he represented the federal government in criminal jury trials. Mr. Desmarais is a member of the bars of New York and Washington, D.C., the United States Supreme Court, the Federal Circuit Court of Appeals, and various other federal district courts and courts of appeal. He is also registered to practice before the United States Patent and Trademark Office. Mr. Desmarais has been recognized by numerous publications as one of the nation's leading intellectual property litigators. Mr. Desmarais obtained a degree in Chemical Engineering from Manhattan College and a law degree from New York University. We believe that Mr. Desmarais' business and legal experience, including his extensive experience in the area of intellectual property, give him the qualifications and skills to serve as one of our directors.

### **A. Jeffrey Radov**

A. Jeffrey Radov became a member of our Board and Chair of our Audit Committee in April 2011. Mr. Radov is an entrepreneur and businessman with more than 35 years of experience in media, communications and financial endeavors. Since 2002, he has served as the Managing Partner of Walworth Group, which provides consulting and advisory services to a variety of businesses, including hedge funds, media, entertainment and Internet companies, financial services firms and early stage ventures. Mr. Radov is also an advisor to GeekVentures, LLC, an incubator for technology startups in Israel. From 2008 to 2010, Mr. Radov was a Principal and Chief Operating Officer at Aldebaran Investments, LLC, a registered investment advisor. From 2005 to 2008, Mr. Radov was Chief Operating Officer at EagleRock Capital Management, a group of hedge funds. Prior to joining EagleRock, Mr. Radov was a founding investor in and Board member of Edusoft, Inc., an educational software company. From 2001 to 2002, Mr. Radov was a Founder-in-Residence at SAS Investors, an early-stage venture fund. From 1999 to 2001, Mr. Radov was CEO and co-founder of VocaLoca, Inc., an innovator in consumer-generated audio content on the Internet. Mr. Radov was a founding executive of About.Com, Inc., an online information source, and was its EVP of Business Development and Chief Financial Officer from its inception. In 1996, prior to founding About.Com, Mr. Radov was a Director at Prodigy Systems Company, a joint venture of IBM and Sears. Mr. Radov was also a principal in the management of a series of public limited partnerships that invested in the production and distribution of more than 130 major motion pictures. From 1982 to 1984, Mr. Radov was the Director of Finance at Rainbow Programming Enterprises, a joint venture among Cablevision Systems Corporation, Cox Broadcasting and Daniels & Associates. From 1977 to 1981, Mr. Radov was Director of Marketing at Winklevoss & Associates. Mr. Radov earned a Masters of Business Administration from The Wharton School of the University of Pennsylvania and holds a Bachelor of Arts degree from Cornell University. We believe that Mr. Radov's executive-level management experience and his extensive experience in the finance industry give him the qualifications and skills to serve as one of our directors.

### **Charles S. Ryan**

Dr. Charles S. Ryan became a member of our Board in April 2015. Since October 2016, Dr. Ryan has served as Chief Executive Officer of Orthobond, Inc., a company that seeks to improve the performance and safety of medical devices through the use of proprietary non-polymer technology. From March 2015 to May 2016, Dr. Ryan served as Vice President, General Counsel of Cold Spring Harbor Laboratory, or CSH Laboratory, a not-for-profit research and education institution at the forefront of molecular biology and genetics, with research programs focusing on cancer, neuroscience, plant biology, genomics and quantitative biology. From 2003 to 2014, he served as Senior Vice President and Chief Intellectual Property Counsel at Forest Laboratories, Inc., a New York Stock Exchange company that developed and marketed pharmaceutical products in a variety of therapeutic categories including central nervous system, cardiovascular, anti-infective, respiratory, gastrointestinal, and pain management medicine. Dr. Ryan has over 20 years experience in managing all aspects of intellectual property litigation, conducting due diligence investigations and prosecuting patent and trademark applications in the pharmaceutical and biotechnology industries. He also serves as a director of Applied DNA Sciences, Inc., a company that uses biotechnology as a forensic foundation in creating unique security solutions addressing the challenges of modern commerce. Dr. Ryan earned a doctorate in Oral Biology and Pathology from Stony Brook University and a law degree from Western New England University. We believe that Dr. Ryan's executive-level management and legal experience give him the qualifications and skills to serve as one of our directors.



## **Paul Jude Tonna**

Paul Jude Tonna became a member of our Board and Chair of our Compensation Committee in June 2014. Mr. Tonna is a highly regarded community leader and an accomplished businessman with an extensive history of public service. From 1994 to 2005 he served as a Suffolk County, New York Legislator, and from 2000 through 2002 was its Presiding Officer. He currently serves as Executive Director and a member of the Board of Advisors for The Energeia Partnership at Molloy College, a leadership academy based in Rockville Centre, New York, dedicated to identifying and addressing the serious, complex and multi-dimensional issues challenging the Long Island region. Mr. Tonna is a former Adjunct Professor in Theology & Religious Studies at St. John's University. He served as Chairman of the Suffolk County Industrial Development Agency, and currently serves as Trustee of the Long Island State Parks & Recreation Commission and as Public Trustee of the Stationary Engineers Industry Stabilization Fund. Mr. Tonna is a board member of The Advanced Energy Research & Technology Center at Stony Brook University, The Long Island Index Advisory Board and Erase Racism's College of Advisors. He also serves as the Executive Director of the Suffolk County Village Officials Association and the United States Green Building Council-Long Island Chapter. Mr. Tonna is a founding director of Empire National Bank and Chairman and Commissioner of the South Huntington Water District. Mr. Tonna holds an undergraduate degree in Philosophy from New York University and a Master's degree in Theology from Immaculate Conception Seminary, and he conducted doctoral studies in Systemic Theology at Fordham University. We believe that Mr. Tonna's executive-level management experience and his extensive experience in the Long Island community give him the qualifications and skills to serve as one of our directors.

## **Scientific Advisors**

### **Scientific Advisory Board**

The following persons are the members of our Scientific Advisory Board:

| <b>Name</b>                   | <b>Principal Positions</b>   |
|-------------------------------|--|
|                               | Professor, Department of Cancer Immunology & AIDS, Dana-Farber Cancer Institute; |
| Wayne Marasco, M.D.,<br>Ph.D. | Professor of Medicine, Harvard Medical School;                                   |
| Chairman                      | Principal Faculty Member, Harvard Stem Cell Institute                            |



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Naiyer Imam, M.D.

Chairman and President of First Medicine Inc., an international telemedicine corporation dedicated to virtual physician services and chronic disease management.

Director, Interventional and Endovascular Neurosurgery;

Wayne J. Olan, M.D.

Associate Professor, Neurosurgery and Radiology, George Washington University Medical Center;

Consulting Physician, Department of Radiology, National Institutes of Health

President and Founder, Access BIO, L.C.; Fellow, Academy of Toxicological Sciences and the Regulatory Professional Society;

Joy Cavagnaro, Ph.D.,  
DABT, RAC

Formerly Senior Pharmacologist and Director of Quality Assurance, Food and Drug Administration's Center for Biologics Evaluation and Research

### Chief Medical Advisor for Spine Medicine

Gregory E. Lutz, M.D. serves as our Chief Medical Advisor for Spine Medicine. Dr. Lutz is Professor of Clinical Rehabilitation Medicine, Weill Medical College of Cornell. He is the Physiatrist-in-Chief Emeritus for Hospital for Special Surgery, or HSS. In 1997, Dr. Lutz established the Physiatry Department at HSS when he became Physiatrist-in-Chief. Dr. Lutz recently founded the Regenerative SportsCare Institute in the Upper East Side of Manhattan. The institute is dedicated to the regenerative musculoskeletal care of athletes of all ages and levels. He is also consulting physician to the National Hockey League Players' Association.

### Family Relationships

There are no family relationships among any of our executive officers and directors.

### Term of Office

We have a classified Board of Directors. The directors will hold office until the respective annual meetings of stockholders indicated below and until their respective successors are elected and qualified or until their earlier resignation or removal.

| Name              | Class | Term Expires |
|-------------------|-------|--------------|
| Mark Weinreb      | III   | 2017         |
| Robert B. Catell  | I     | 2018         |
| John M. Desmarais | II    | 2019         |
| A. Jeffrey Radov  | III   | 2017         |
| Charles S. Ryan   | I     | 2018         |
| Paul Jude Tonna   | II    | 2019         |

Each executive officer will hold office until the initial meeting of the Board of Directors following the next annual meeting of stockholders and until his or her successor is elected and qualified or until his or her earlier resignation or removal.

## **Audit Committee**

The Audit Committee of the Board of Directors is responsible for overseeing our accounting and financial reporting processes and the audits of our financial statements. The members of the Audit Committee are Messrs. Radov (Chair), Ryan and Tonna.

## **Audit Committee Financial Expert**

Our Board of Directors has determined that Mr. Radov is an “audit committee financial expert,” as that is defined in Item 407(d)(5) of Regulation S-K. Mr. Radov is an “independent director” based on the definition of independence in Listing Rule 5605(a)(2) of The Nasdaq Stock Market.

**Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16 of the Exchange Act requires that reports of beneficial ownership of common stock and changes in such ownership be filed with the Securities and Exchange Commission by Section 16 “reporting persons,” including directors, certain officers, holders of more than 10% of the outstanding common stock and certain trusts of which reporting persons are trustees. We are required to disclose in this Annual Report each reporting person whom we know to have failed to file any required reports under Section 16 on a timely basis during the fiscal year ended December 31, 2016. To our knowledge, based solely on a review of copies of Forms 3, 4 and 5 filed with the Securities and Exchange Commission and written representations that no other reports were required, during the fiscal year ended December 31, 2016, our officers, directors and 10% stockholders complied with all Section 16(a) filing requirements applicable to them. However, Francisco Silva, our Vice President of Research and Development, filed one Form 4 late (reporting four transactions) with regard to the fiscal years ended December 31, 2013 and 2014.

**Code of Ethics for Senior Financial Officers**

Our Board of Directors has adopted a Code of Ethics for our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A copy of the Code of Ethics is posted on our website, [www.biorestorative.com](http://www.biorestorative.com). We intend to satisfy the disclosure requirement under Item 5.05(c) of Form 8-K regarding an amendment to, or a waiver from, our Code of Ethics by posting such information on our website, [www.biorestorative.com](http://www.biorestorative.com).

**ITEM 11. EXECUTIVE COMPENSATION.**

**Summary Compensation Table**

The following Summary Compensation Table sets forth all compensation earned in all capacities during the fiscal years ended December 31, 2016 and 2015 by our (i) principal executive officer, and (ii) our two most highly compensated executive officers, other than our principal executive officer, whose total compensation for the 2016 fiscal year, as determined by Regulation S-K, Item 402, exceeded \$100,000 (the individuals falling within categories (i) and (ii) are collectively referred to as the “Named Executive Officers”):

| Name and Principal<br>Position | Year | Salary | Bonus | Option<br>Awards<br>Earned<br>(1) | All<br>Other<br>Compensation | Total |
|--------------------------------|------|--------|-------|-----------------------------------|------------------------------|-------|
|--------------------------------|------|--------|-------|-----------------------------------|------------------------------|-------|

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|  |         |           |              |     |               |          |     |                |
|--|---------|-----------|--------------|-----|---------------|----------|-----|----------------|
| Mark Weinreb,<br>Chief Executive Officer           | 2016    | \$400,000 | \$96,000     | (2) | \$887,000(3)  | \$ 7,200 | (4) | \$1,390,200(4) |
|  | 2015    | \$400,000 | \$200,000(5) |     | \$743,300(6)  | \$ 7,200 | (7) | \$1,350,500(7) |
| Edward Field<br>President of Disc/Spine Division   | 2016    | \$300,000 | \$36,000     | (2) | \$263,000(8)  | \$ -     |     | \$599,000      |
|  | 2015(9) | \$252,500 | \$7,612      |     | \$291,900(10) | \$ -     |     | \$552,012      |
| Francisco Silva,<br>VP of Research and Development | 2016    | \$250,000 | \$26,000     | (2) | \$197,200(11) | \$ -     |     | \$473,200      |
|  | 2015    | \$250,000 | \$-          |     | \$91,500 (12) | \$ -     |     | \$341,500      |

(1) The amounts reported in this column represent the grant date fair value of the option awards granted during the years ended December 31, 2016 and 2015, calculated in accordance with FASB ASC Topic 718. For a detailed discussion of the assumptions used in estimating fair values, see Note 10 – Stockholders’ Deficiency in the notes that accompany our consolidated financial statements included in this Annual Report following Item 16 hereof.

(2) Represents the amount of bonus for 2016 earned pursuant to the achievement of certain performance goals.

(3) During 2016, Mr. Weinreb was granted a ten year option under our 2010 Equity Participation Plan, or the Plan, for the purchase of 275,000 shares of common stock at an exercise price of \$3.73 per share. Such option is exercisable to the extent of 91,667 shares as of each of the first and second anniversaries of the date of grant and 91,666 shares as of the third anniversary of the date of grant. See “Employment Agreements” below for a discussion of certain provisions relating to the options granted to Mr. Weinreb.

(4) Of the aggregate \$1,390,200 earned during 2016, \$887,000 represents the grant date value of non-cash stock-based compensation awards, irrespective of the vesting period of those awards. Of the \$503,200 earned cash compensation, \$7,200 and \$124,980 were paid in cash during 2016 and 2017 (prior to the date of the filing of this Annual Report), respectively, and \$403,020 remains unpaid for 2016. All Other Compensation represents an automobile allowance paid to Mr. Weinreb in 2016.

(5) Pursuant to Mr. Weinreb’s employment agreement with us, he earned a bonus for 2015 equal to 50% of his annual salary. See “Employment Agreements” below.

(6) During 2015, Mr. Weinreb was granted a ten year option under the Plan for the purchase of 208,000 shares of common stock at an exercise price of \$7.00 per share, subject to stockholder approval of an increase in the number of shares of common stock authorized to be issued pursuant to the Plan. Stockholder approval of such increase was obtained in 2015. Such option is exercisable to the extent of 104,000 shares as of such stockholder approval, 34,667 shares as of each of the first and second anniversaries of the date of grant and 34,666 shares as of the third anniversary of the date of grant. See “Employment Agreements” below for a discussion of certain provisions relating to the options granted to Mr. Weinreb and Item 13 (“Certain Relationships and Related Transactions, and Director Independence”) for a discussion of the repricing of the option.

(7) Of the aggregate \$1,350,500 earned during 2015, \$743,300 represents the grant date value of non-cash stock-based compensation awards, irrespective of the vesting period of those awards. Of the \$607,200 earned cash compensation, \$7,200, \$543,470 and \$56,530 were paid in cash during 2015, 2016 and 2017 (prior to the date of the filing of this Annual Report), respectively, and nothing remains unpaid for 2015. All Other Compensation represents an automobile allowance paid to Mr. Weinreb in 2015.

(8) During 2016, Mr. Field was granted a ten year option under the Plan for the purchase of 80,000 shares of common stock at an exercise price of \$3.73 per share. Such option is exercisable to the extent of 26,667 shares as of each of the first and second anniversaries of the date of grant and 26,666 shares as of the third anniversary of the date of grant.

(9) Mr. Field was elected as President of our Disc/Spine Division in February 2015.

(10) During 2015, Mr. Field was granted a ten year option under the Plan for the purchase of 25,000 shares of common stock at an exercise price of \$9.20 per share. Such option is exercisable to the extent of 8,334 shares as of the first

anniversary of the date of grant and 8,333 shares as of each of the second and third anniversaries of the date of grant. In addition, during 2015, Mr. Field was granted a ten year option under the Plan for the purchase of 25,000 shares of common stock at an exercise price of \$7.00 per share, subject to stockholder approval of an increase in the number of shares of common stock authorized to be issued pursuant to the Plan. Stockholder approval of such increase was obtained in 2015. Such option is exercisable to the extent of 8,334 shares as of the first anniversary of the date of grant and 8,333 shares as of each of the second and third anniversaries of the date of grant. See Item 13 (“Certain Relationships and Related Transactions, and Director Independence”) for a discussion of the repricing of the options.

(11) During 2016, Mr. Silva was granted a ten year option under the Plan for the purchase of 60,000 shares of common stock at an exercise price of \$3.73 per share. Such option is exercisable to the extent of 20,000 shares as of each of the first, second and third anniversaries of the date of grant.

(12) During 2015, Mr. Silva was granted a ten year option under the Plan for the purchase of 25,000 shares of common stock at an exercise price of \$7.00 per share, subject to stockholder approval of an increase in the number of shares of common stock authorized to be issued pursuant to the Plan. Stockholder approval of such increase was obtained in 2015. Such option is exercisable to the extent of 8,334 shares as of the first anniversary of the date of grant and 8,333 shares as of each of the second and third anniversaries of the date of grant. See Item 13 (“Certain Relationships and Related Transactions, and Director Independence”) for a discussion of the repricing of the option.

**Outstanding Equity Awards at Fiscal Year-End**

The following table provides information on outstanding equity awards as of December 31, 2016 to the Named Executive Officers:

| Name            | Option Awards                                       |   |   | Stock Awards          |                        |  |  |  | Equity incentive awards: Market or payout value of unearned shares, units or other rights that have not vested |
|-----------------|---|---|---|-----------------------|------------------------|--|--|--|--|
|                 | Number of securities underlying unexercised options | Number of securities underlying unexercised options | Equity incentive plan awards: Number of securities underlying unexercised options | Option exercise price | Option expiration date | Number of shares or units that have not vested | Market value of shares or units that have not vested | Equity incentive awards: Number of unearned shares, units or other rights that have not vested |  |
| Mark Weinreb    | 4,000   | -   | -   | \$ 10.00              | 12/14/2020             | -  | \$ -   | -  | \$ -   |
| Mark Weinreb    | 50,000  | -   | -   | \$ 21.00              | 2/10/2022              | -  | \$ -   | -  | \$ -   |
| Mark Weinreb    | 20,000  | -   | -   | \$ 30.00              | 12/7/2022              | -  | \$ -   | -  | \$ -   |
| Mark Weinreb    | 12,500  | -   | -   | \$ 12.00              | 10/4/2023              | -  | \$ -   | -  | \$ -   |
| Mark Weinreb    | 50,000  | -   | -   | \$ 13.00              | 2/18/2024              | -  | \$ -   | -  | \$ -   |
| Mark Weinreb    | 100,000   | 50,000  | (1) -   | \$ 6.60               | 10/23/2024             | -  | \$ -   | -  | \$ -   |
| Mark Weinreb    | 138,667   | 69,333  | (2) -   | \$ 7.00               | 9/4/2025               | -  | \$ -   | -  | \$ -   |
| Mark Weinreb    | 91,667  | 183,333   | (3) -   | \$ 3.73               | 6/10/2026              | -  | \$ -   | -  | \$ -   |
| Edward L. Field | 8,334   | 16,666  | (4) -   | \$ 9.20               | 2/9/2025               | -  | \$ -   | -  | \$ -   |
| Edward L. Field | 8,334   | 16,666  | (5) -   | \$ 7.00               | 9/4/2025               | -  | \$ -   | -  | \$ -   |



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|                 |        |        |       |     |          |            |      |   |      |
|-----------------|--------|--------|-------|-----|----------|------------|------|---|------|
| Edward L. Field | -      | 80,000 | (6)   | -   | \$ 3.73  | 6/1/2026   | - \$ | - | \$ - |
| Francisco Silva | 4,000  | -      | -     | -   | \$ 10.00 | 4/4/2021   | - \$ | - | \$ - |
| Francisco Silva | 150    | -      | -     | -   | \$ 25.00 | 6/23/2021  | - \$ | - | \$ - |
| Francisco Silva | 1,000  | -      | -     | -   | \$ 20.00 | 11/16/2021 | - \$ | - | \$ - |
| Francisco Silva | 2,000  | -      | -     | -   | \$ 21.00 | 2/10/2022  | - \$ | - | \$ - |
| Francisco Silva | 4,500  | -      | 3,000 | (7) | \$ 28.00 | 5/2/2022   | - \$ | - | \$ - |
| Francisco Silva | 4,000  | -      | -     | -   | \$ 30.00 | 12/7/2022  | - \$ | - | \$ - |
| Francisco Silva | 5,000  | -      | -     | -   | \$ 12.00 | 10/4/2023  | - \$ | - | \$ - |
| Francisco Silva | 12,500 | -      | -     | -   | \$ 13.00 | 2/18/2024  | - \$ | - | \$ - |
| Francisco Silva | 2,000  | -      | -     | -   | \$ 10.60 | 3/12/2024  | - \$ | - | \$ - |
| Francisco Silva | 2,000  | -      | -     | -   | \$ 28.00 | 5/2/2022   | - \$ | - | \$ - |
| Francisco Silva | 25,000 | 12,500 | (8)   | -   | \$ 6.60  | 10/23/2024 | - \$ | - | \$ - |
| Francisco Silva | 8,334  | 16,666 | (5)   | -   | \$ 7.00  | 9/4/2025   | - \$ | - | \$ - |
| Francisco Silva | -      | 60,000 | (9)   | -   | \$ 3.73  | 6/10/2026  | - \$ | - | \$ - |

- (1) Option is exercisable effective as of October 23, 2017.
  - (2) Option is exercisable to the extent of 34,667 shares effective as of September 4, 2017 and 34,666 shares effective as of September 4, 2018.
  - (3) Option is exercisable to the extent of 91,667 shares on June 10, 2017 and 91,666 shares on June 10, 2018.
  - (4) Option is exercisable to the extent of 8,333 shares effective as of each of February 9, 2017 and February 9, 2018.
  - (5) Option is exercisable to the extent of 8,333 shares effective as of each of September 4, 2017 and September 4, 2018.
  - (6) Option is exercisable to the extent of 26,667 shares on each of June 10, 2017 and June 10, 2018, and 26,666 shares on June 10, 2019.
- Options are exercisable commencing on the date (provided that such date is during Mr. Silva's employment with us), if any, on which either (i) the FDA approves a biologics license application made by us with respect to any
- (7) biologic product or (ii) a 510(k) Premarket Notification submission is made by us to the FDA with respect to a certain device.
- (8) Option is exercisable effective as of October 23, 2017.
  - (9) The option is exercisable to the extent of 20,000 shares on each of June 10, 2017, June 10, 2018 and June 10, 2019.

## Employment Agreements

In March 2015, we entered into an employment agreement with Mark Weinreb, our Chief Executive Officer. Pursuant to the employment agreement, which expires on December 31, 2017, Mr. Weinreb is entitled to receive a salary of \$400,000 per annum. Mr. Weinreb was entitled to receive an annual bonus for 2015 equal to 50% of his annual base salary and is entitled to receive an annual bonus for 2016 and 2017 of up to 40% and 50% of his annual base salary, respectively, in the event certain performance goals, as determined by our Compensation Committee, are satisfied. Pursuant to the employment agreement, in the event that Mr. Weinreb's employment is terminated by us without "cause", or Mr. Weinreb terminates his employment for "good reason" (each as defined in the employment agreement), Mr. Weinreb would be entitled to receive severance in an amount equal to one time his then annual base salary and certain benefits, plus \$100,000 (in lieu of bonus). In addition, pursuant to the employment agreement, Mr. Weinreb would be entitled to receive such severance in the event that the term of his employment agreement is not extended beyond December 31, 2017 and, within three months of such expiration date, his employment is terminated by us without "cause" or Mr. Weinreb terminates his employment for any reason. Further, in the event that Mr. Weinreb's employment is terminated by us without "cause", or Mr. Weinreb terminates his employment for "good reason", following a "change in control" (as defined in the employment agreement), Mr. Weinreb would be entitled to receive severance in an amount equal to one and one-half times his then annual base salary and certain benefits, plus \$300,000 (in lieu of bonus). Pursuant to the employment agreement, with respect to options granted to Mr. Weinreb during the term of his employment with us, such options shall vest and become exercisable if Mr. Weinreb is entitled to receive severance

based upon a termination of his employment as set forth above. In addition, pursuant to the employment agreement, to the extent that an option granted to Mr. Weinreb during his term of his employment with us becomes exercisable (whether due to the passage of time or otherwise), such option shall remain exercisable until its expiration date notwithstanding any termination of employment with us.

Effective February 9, 2015, we entered into an at will employment agreement with Edward L. Field, President of our Disc/Spine Division. Pursuant to the employment agreement, Mr. Field is currently entitled to receive a salary of \$300,000 per annum. In addition, pursuant to the employment agreement, Mr. Field is entitled to receive an annual bonus of up to 30% of his annual salary (up to 24% of his annual salary for 2016) based on the satisfaction of certain performance goals. Further, pursuant to the employment agreement, in the event that Mr. Field's employment with us is terminated without cause, Mr. Field would be entitled to receive severance in an amount equal to 50% of his then annual base salary.

Effective April 5, 2011, we entered into an at will employment agreement with Francisco Silva, our Vice President of Research and Development. Pursuant to the employment agreement, as amended in March 2015, Mr. Silva is currently entitled to receive a salary of \$250,000 per annum. In addition, pursuant to the employment agreement, as amended, Mr. Silva is entitled to receive an annual bonus of up to 20% of his annual salary (up to 16% of his annual salary for 2016) based on the satisfaction of certain performance goals. Further, pursuant to the employment agreement, as amended, in the event that Mr. Silva's employment with us is terminated without cause, Mr. Silva would be entitled to receive severance in an amount equal to 50% of his then annual base salary.

## Director Compensation

The following table sets forth certain information concerning the compensation of our non-employee directors for the fiscal year ended December 31, 2016:

| Name                            | Fees Earned<br>or Paid in<br>Cash | Stock<br>Awards | Option<br>Awards <sup>(1)</sup> | Non-Equity<br>Incentive Plan<br>Compensation | Nonqualified                         |                           | Total      |
|---------------------------------|-----------------------------------|-----------------|---------------------------------|--|--------------------------------------|---------------------------|------------|
|                                 |                                   |                 |                                 |  | Deferred<br>Compensation<br>Earnings | All Other<br>Compensation |            |
| Robert B. Catell <sup>(2)</sup> | \$ 35,000                         | \$ -            | \$ 146,400 <sup>(3)</sup>       | \$ -   | \$ -                                 | \$ -                      | \$ 181,400 |
| John M. Desmarais               | \$ 40,000                         | \$ -            | \$ 112,900 <sup>(4)</sup>       | \$ -   | \$ -                                 | \$ -                      | \$ 152,900 |
| A. Jeffrey Radov                | \$ 40,000                         | \$ -            | \$ 412,900 <sup>(5)</sup>       | \$ -   | \$ -                                 | \$ -                      | \$ 452,900 |
| Charles S. Ryan                 | \$ 40,000                         | \$ -            | \$ 148,400 <sup>(6)</sup>       | \$ -   | \$ -                                 | \$ -                      | \$ 188,400 |
| Paul Jude Tonna                 | \$ 40,000                         | \$ -            | \$ 206,400 <sup>(7)</sup>       | \$ -   | \$ -                                 | \$ -                      | \$ 246,400 |

(1) The amounts reported in this column represent the grant date fair value of the option awards granted during the year ended December 31, 2016, calculated in accordance with FASB ASC Topic 718. For a detailed discussion of the assumptions used in estimating fair values, see Note 10 – Stockholders’ Deficiency in the notes that accompany our consolidated financial statements in this Annual Report following Item 16 hereof.

(2) Mr. Catell was elected as a director in February 2016.

(3) As of December 31, 2016, Mr. Catell held options for the purchase of 44,000 shares of common stock.

(4) As of December 31, 2016, Mr. Desmarais held options for the purchase of 50,000 shares of common stock.

(5) As of December 31, 2016, Mr. Radov held options for the purchase of 366,000 shares of common stock.

(6) As of December 31, 2016, Mr. Ryan held options for the purchase of 81,000 shares of common stock.

(7) As of December 31, 2016, Mr. Tonna held options for the purchase of 164,000 shares of common stock.

Each of Messrs. Catell, Desmarais, Radov, Ryan and Tonna, our non-employee directors, is entitled to receive, as compensation for his services as a director, \$30,000 per annum plus \$10,000 per annum for all committee service, in each case payable quarterly (subject to our cash needs).

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

**Principal Stockholders**

The following table sets forth certain information regarding the beneficial ownership of our common stock, as of March 15, 2017, known by us, through transfer agent records, to be held by: (i) each person who beneficially owns 5% or more of the shares of common stock then outstanding; (ii) each of our directors; (iii) each of our Named Executive Officers (as defined above); and (iv) all of our directors and executive officers as a group.

The information in this table reflects “beneficial ownership” as defined in Rule 13d-3 of the Exchange Act. To our knowledge, and unless otherwise indicated, each shareholder has sole voting power and investment power over the shares listed as beneficially owned by such shareholder, subject to community property laws where applicable. Percentage ownership is based on 5,276,027 shares of common stock outstanding as of March 15, 2017.



| Name and Address<br>of Beneficial Owner  | Number of<br>Shares<br>Beneficially<br>Owned |      | Approximate<br>Percent of<br>Class |   |
|--|--|------|------------------------------------|---|
| John M. Desmarais<br>230 Park Avenue<br>New York, New York   | 1,887,907                                    | (1)  | __28.3                             | % |
| Westbury (Bermuda) Ltd.<br>Westbury Trust<br>Victoria Hall<br>11 Victoria Street<br>Hamilton, HMEX Bermuda | 1,191,662                                    | (2)  | 21.6                               | % |
| Mark Weinreb<br>40 Marcus Drive<br>Melville, New York  | 546,834                                      | (3)  | 9.5                                | % |
| Robert Austin Sperling Jr.<br>22 East Lake Drive<br>Annapolis, MD 21403                                    | 422,720                                      | (4)  | 7.8                                | % |
| A. Jeffrey Radov<br>8 Walworth Avenue<br>Scarsdale, New York   | 238,001                                      | (5)  | __4.3                              | % |
| Robert B. Catell<br>62 Osborne Road<br>Garden City, New York   | 174,399                                      | (6)  | _3.2                               | % |
| Paul Jude Tonna<br>69 Chichester Road<br>Huntington, New York  | 160,501                                      | (7)  | 3.0                                | % |
| Charles S. Ryan<br>1302 Ridge Road<br>Laurel Hollow, New York  | 117,002                                      | (8)  | 2.2                                | % |
| Francisco Silva<br>40 Marcus Drive<br>Melville, New York   | 72,729                                       | (9)  | 1.4                                | % |
| Edward L. Field<br>40 Marcus Drive<br>Melville, New York   | 25,001                                       | (10) | *                                  |   |
| All directors and executive officers as a group (9 persons)  | 3,256,091                                    | (11) | __41.7                             | % |





\* Less than 1%

Based upon Schedule 13D filed with the Securities and Exchange Commission (the “SEC”) and other information known to us. Includes 1,394,509 shares of common stock issuable upon the exercise of currently exercisable

- (1) options and warrants (including warrants for the purchase of 40,000 shares of common stock held by a trust for which Mr. Desmarais and his wife serve as the trustees and which was established for the benefit of his immediate family).

Based upon Schedule 13D filed with the SEC and other information known to us. Includes 239,182 shares of

(2) common stock issuable upon the exercise of currently exercisable warrants. The shares and warrants are owned directly by Westbury (Bermuda) Ltd. which is 100% owned by Westbury Trust.

- (3) Includes 466,834 shares of common stock issuable upon the exercise of options that are exercisable currently or within 60 days.
- (4) Includes 151,360 shares of common stock issuable upon the exercise of currently exercisable warrants.
- (5) Includes 225,501 shares of common stock issuable upon the exercise of options that are exercisable currently or within 60 days.
- (6) Includes 98,533 shares of common stock issuable upon the exercise of currently exercisable options and warrants.
- (7) Represents (i) 6,000 shares of common stock held jointly with Mr. Tonna’s wife and (ii) 124,501 shares of common stock issuable upon the exercise of options and warrants that are exercisable currently or within 60 days.
- (8) Includes 74,085 shares of common stock issuable upon the exercise of options and warrants that are exercisable currently or within 60 days.

Includes (i) 170 shares of common stock held in an individual retirement account for the benefit of Mr. Silva and

(9) (ii) 68,484 shares of common stock issuable upon the exercise of options that are exercisable currently or within 60 days.

- (10) Represents shares of common stock issuable upon the exercise of options that are exercisable currently or within 60 days.
- (11) Includes 2,511,165 shares of common stock issuable upon the exercise of options and warrants that are exercisable currently or within 60 days.

### **Securities Authorized for Issuance Under Equity Compensation Plans**

The following table sets forth information as of December 31, 2016 with respect to compensation plans (including individual compensation arrangements) under which our common stock are authorized for issuance, aggregated as

follows:

All compensation plans previously approved by security holders; and

All compensation plans not previously approved by security holders.

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**EQUITY COMPENSATION PLAN INFORMATION**

|  | Number of securities<br>to be issued upon<br>exercise of<br>outstanding options<br>(a) | Weighted-average<br>exercise price of<br>outstanding<br>options<br>(b) | Number of securities<br>remaining available for<br>future issuance under<br>equity compensation plans<br>(excluding securities<br>reflected in column (a)) |
|--|--|--|--|
| Equity compensation plans approved by security holders | 2,168,950  | \$ 7.53  | 2,036,050  |
| Total  | 2,168,950  | \$ 7.53  | 2,036,050  |

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

In March 2013, Stem Cell Cayman, Ltd., or Cayman, one of our wholly-owned subsidiaries, borrowed \$450,000 from Westbury (Bermuda) Ltd., or Westbury, one of our principal stockholders. The loan amount was combined with the already outstanding \$3,550,000 of previous borrowings from Westbury into a new \$4,000,000 zero coupon note, or the \$4,000,000 Westbury Note, which was scheduled to mature on July 31, 2014. In consideration of the \$450,000 loan, the settlement of accrued and unpaid interest of \$213,000, and for extending the maturity date of the note to July 31, 2014, we issued to Westbury 30,000 shares of common stock and a five year warrant to purchase 20,000 shares of common stock at an exercise price of \$50.00 per share. In August 2014, in consideration of an extension of the maturity date of the \$4,000,000 Westbury Note to December 31, 2014, we issued to Westbury 27,500 shares of common stock. In December 2014, in consideration of a further extension of the maturity date of the \$4,000,000 Westbury Note to June 30, 2015, we issued to Westbury 22,500 shares of common stock.

In May 2014, Cayman borrowed an additional \$500,000 from Westbury. The promissory note evidencing the loan, as amended, or the \$500,000 Westbury Note, provided for the payment of the principal amount, together with interest at the rate of 15% per annum, on June 30, 2015. The \$500,000 Westbury Note also provided for the mandatory prepayment of the principal amount to the extent of any monies received by us pursuant to the Research and Development Agreement, dated as of March 19, 2014, between Rohto Pharmaceutical Co., Ltd. and us and/or the Research Agreement, dated as of March 24, 2014, between Pfizer Inc. and us. Pursuant to such provision, \$89,063 in principal was prepaid. Westbury agreed to waive the early payment of the \$500,000 Westbury Note with regard to approximately \$316,000 additionally received by us pursuant to the agreements with Rohto and Pfizer. Interest on the entire principal amount of the \$500,000 Westbury Note was payable until such time as the principal amount was paid

in full.

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In December 2013, pursuant to a warrant repricing program implemented by us with respect to all outstanding and exercisable warrants, Westbury exercised warrants for the purchase of 40,000 shares of our common stock at an exercise price of \$6.00 per share. In connection with the warrant exercise, we granted to Westbury a new warrant, or the 2013 Westbury Warrant, for the purchase of 40,000 shares of our common stock at an exercise price of \$15.00 per share. The 2013 Westbury Warrant was initially exercisable until December 31, 2015 and can be redeemed by us under certain circumstances.

In February 2015, we sold 50,000 shares of common stock to Westbury at an aggregate purchase price of \$300,000. In consideration of the purchase, we issued to Westbury a five year warrant for the purchase of 12,500 shares of common stock at an exercise price of \$15.00 per share.

In May 2015, we entered into an exchange agreement with Westbury pursuant to which Westbury converted the outstanding indebtedness owed to it under the \$4,000,000 Westbury Note and the \$500,000 Westbury Note in the aggregate principal amount of \$4,410,937, together with accrued interest in the amount of \$69,436, into 746,729 shares of our common stock and a five year warrant for the purchase of 186,682 shares of common stock at an exercise price of \$15.00 per share. In consideration of the note exchange, we agreed to extend the expiration date of the 2013 Westbury Warrant to December 31, 2017.

In October 2015, we borrowed \$150,000 from an affiliate of Westbury. The promissory note evidencing the loan, or the \$150,000 Westbury Note, provided for the payment of the principal amount, together with interest at the rate of 10% per annum, on December 9, 2015. The \$150,000 Westbury Note provided for the mandatory prepayment of the principal amount, together with accrued interest, to the extent that we receive proceeds from a public equity offering or monies in payment of an accounts receivable. The payment of the \$150,000 Westbury Note was secured by the grant to the lender of a security interest in the patent we received in September 2015 related to our *ThermoStem Program*. In December 2015, in consideration of an extension of the maturity date of the \$150,000 Note to March 9, 2016, we agreed to reduce the exercise price of warrants held by Westbury for the purchase of 239,182 shares of common stock from \$15.00 to \$4.00 per share. In July 2016, the \$150,000 Westbury Note was paid in full.

### **John M. Desmarais**

In March 2016, John M. Desmarais, one of our non-employee directors and principal stockholders, purchased 250,000 shares of our common stock at a price of \$4.00 per share (gross proceeds of \$1,000,000) and, in consideration thereof, received the following warrants: (i) a five year warrant to purchase 250,000 shares of our common stock at an exercise price of \$5.00 per share; (ii) an eight month warrant to purchase 444,444 shares of our common stock at an exercise price of \$4.50 per share; and (iii) a one year warrant to purchase 400,000 shares of our common stock at an exercise price of \$5.00 per share.

In June 2016, we borrowed \$500,000 from a trust for which Mr. Desmarais and his wife serve as the trustees and which was established for the benefit of Mr. Desmarais's immediate family. The promissory note evidencing the loan, or the Desmarais Trust Note, provides for the payment of the principal amount, together with interest at the rate of 10% per annum, on July 1, 2017. In the event that, prior to the maturity date of the Desmarais Trust Note, we receive net proceeds of \$10,000,000 from a single equity or debt financing (as opposed to a series of related or unrelated financings), the trust has the right to require that we prepay the amount due under the Desmarais Trust Note (subject to the consent of the party that provided the particular financing). In consideration of the loan, we issued to the trust a five year warrant for the purchase of 40,000 shares of our common stock at an exercise price of \$4.00 per share.

In September 2016, Mr. Desmarais purchased 80,000 shares of our common stock at a purchase price of \$3.00 per share (gross proceeds of \$240,000). In consideration of the purchase, we issued to Mr. Desmarais a five year warrant to purchase 80,000 shares of our common stock at an exercise price of \$4.00 per share and extended the expiration dates of the warrants held by Mr. Desmarais for the purchase of 444,444 and 400,000 shares of our common stock for a period of one year to November 18, 2017 and March 18, 2018, respectively.

In December 2016, we borrowed \$60,000 from Mr. Desmarais. The promissory note evidencing the loan provided for the payment of \$65,000 on January 31, 2017. In consideration of the loan, we further extended the expiration dates of the warrants held by Mr. Desmarais for the purchase of 444,444 and 400,000 shares of our common stock to December 31, 2018. In February 2017, we entered into an exchange agreement with Mr. Desmarais pursuant to which Mr. Desmarais exchanged the principal amount of the promissory note, together with accrued interest, for 21,731 shares of our common stock at an exchange price of \$3.00 per share and, in consideration thereof, received a five year warrant to purchase 21,731 shares of our common stock at an exercise price of \$4.00 per share.

## **Others**

In May 2015, Charles S. Ryan, one of our non-employee directors, purchased 10,000 shares of our common stock at a price of \$5.00 per share (gross proceeds of \$50,000) and, in consideration thereof, received a five year warrant to purchase 10,000 shares of our common stock at an exercise price of \$15.00 per share.

In November 2015, Mr. Ryan exchanged a promissory note in the principal amount of \$25,000 for 6,250 shares of our common stock at an exchange price of \$4.00 per share and, in consideration thereof, received a five year warrant to purchase 6,250 shares of our common stock at an exercise price of \$4.00 per share.

Between June 2015 and September 2015, each of Stanley Weinreb, the father of Mark Weinreb, our Chief Executive Officer, and his wife, Constance Weinreb, loaned us \$65,000. In consideration of the loans, we issued a promissory note to each of them in the principal amount of \$75,000, payable on October 30, 2015, referred to as the Weinreb Notes. We have repaid \$20,000 and \$10,000 of the principal amounts payable to Constance Weinreb and Stanley Weinreb, respectively. Constance Weinreb and Stanley Weinreb had agreed to extend the maturity date of their notes to August 31, 2016 and September 30, 2016, respectively. No interest is payable pursuant to the Weinreb Notes.

Between March 2016 and May 2016, Robert B. Catell, one of our non-employee directors, purchased an aggregate of 50,000 shares of our common stock at a price of \$4.00 per share (aggregate gross proceeds of \$200,000) and, in consideration thereof, received five year warrants to purchase an aggregate of 50,000 shares of our common stock at an exercise price of \$5.00 per share.





In August 2016, we borrowed \$100,000 from Mr. Catell. The promissory note evidencing the loan, or the Catell Note, provides for the payment of the principal amount, together with interest at the rate of 10% per annum, on February 5, 2017. In the event that, prior to the maturity date of the Catell Note, we receive net proceeds of \$10,000,000 from a single equity or debt financing (as opposed to a series of related or unrelated financings), Mr. Catell has the right to require that we prepay the amount due under the Catell Note (subject to the consent of the party that provided the particular financing). In consideration of the loan, we issued to Mr. Catell a five year warrant for the purchase of 8,000 shares of our common stock at an exercise price of \$4.00 per share.

In December 2016, we borrowed \$30,000 from Mr. Catell. The promissory note evidencing the loan provided for the payment of \$32,500 on January 31, 2017. In February 2017, we entered into an exchange agreement with Mr. Catell pursuant to which Mr. Catell exchanged the principal amount of the promissory note, together with accrued interest, for 10,866 shares of our common stock at an exchange price of \$3.00 per share and, in consideration thereof, received a five year warrant to purchase 10,866 shares of our common stock at an exercise price of \$4.00 per share.

In February 2017, the Compensation Committee of our Board of Directors reduced the exercise price of outstanding options for the purchase of an aggregate of 1,208,950 shares of our common stock (with exercise prices ranging between \$5.70 and \$30.00 per share) to \$4.70 per share, which was the closing price for our common stock on the day prior to the determination, as reported by the OTCQB. The exercise price reduction related to options held by, among others, our named executive officers and directors with respect to the following number of shares: (i) Mark Weinreb, our President, Chief Executive Officer and Chairman of the Board: 494,500 shares, (ii) A. Jeffrey Radov, one of our directors: 238,000 shares, (iii) Paul Jude Tonna, one of our directors: 100,000 shares, (iv) Dr. Charles S. Ryan, one of our directors: 35,000 shares, (v) Francisco Silva, our Vice President of Research and Development: 100,650 shares, and (vi) Edward L. Field, President of our Disc/Spine Division: 50,000 shares.

In March 2017, we entered into exchange agreements with Messrs. Catell, Desmarais, Ryan and Tonna, each a non-employee director, pursuant to which accrued director fees were exchanged for our common stock at an exchange price of \$3.00 per share and, in consideration thereof, we issued to them five year warrants for the purchase of our common stock at an exercise price of \$4.00 per share as follows: (i) Mr. Catell: \$45,000 for 15,000 shares and 15,000 warrants; (ii) Mr. Desmarais: \$50,000 for 16,667 shares and 16,667 warrants; (iii) Mr. Ryan: \$80,000 for 26,667 shares and 26,667 warrants; and (iv) Mr. Tonna: \$90,000 for 30,000 shares and 30,000 warrants.

## **Director Independence**

### **Board of Directors**

Our Board of Directors is currently comprised of Mark Weinreb (Chair), Robert B. Catell, John M. Desmarais, A. Jeffrey Radov, Charles S. Ryan and Paul Jude Tonna. Each of Messrs. Catell, Desmarais, Radov, Ryan and Tonna is currently an “independent director” based on the definition of independence in Listing Rule 5605(a)(2) of The Nasdaq Stock Market.

### **Audit Committee**

The members of our Board’s Audit Committee currently are Messrs. Radov (Chair), Ryan and Tonna, each of whom is an “independent director” based on the definition of independence in Listing Rule 5605(a)(2) The Nasdaq Stock Market and Rule 10A-3(b)(1) under the Exchange Act.

### **Nominating Committee**

The members of our Board’s Nominating Committee currently are Messrs. Tonna (Chair), Radov and Ryan, each of whom is an “independent director” based on the definition of independence in Listing Rule 5605(a)(2) of The Nasdaq Stock Market.

### **Compensation Committee**

The members of our Board’s Compensation Committee currently are Messrs. Tonna (Chair), Catell and Radov, each of whom is an “independent director” based on the definition of independence in Listing Rule 5605(a)(2) of The Nasdaq Stock Market.

## **ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.**

Marcum LLP has served as our independent registered public accountants for the years ended December 31, 2016 and 2015.

The following is a summary of the fees billed or expected to be billed to us by Marcum LLP, our independent registered public accountants, for professional services rendered with respect to the fiscal years ended December 31, 2016 and 2015:

|                    | <b>2016</b>       | 2015              |
|--------------------|-------------------|-------------------|
| Audit fees         | \$ 118,000        | \$ 209,001        |
| Audit related fees | -                 | -                 |
| Tax fees           | 9,000             | 9,000             |
| All other fees     | -                 | -                 |
|                    | <b>\$ 127,000</b> | <b>\$ 218,001</b> |

Audit Fees consist of fees billed and expected to be billed for services rendered for the audit of our consolidated (1) financial statements for the fiscal years ended December 31, 2016 and 2015 and in connection with the filing of Forms S-1 and S-8 registration statements.

(2) Audit-Related Fees consist of fees billed for assurance and related services that are reasonably related to the performance of the audit of our financial statements and are not reported under “Audit Fees.”

(3) Tax Fees consist of fees billed for professional services related to preparation of our U.S. federal and state income tax returns and tax advice.

(4) All Other Fees consist of fees billed for products and services provided by our independent registered public accountants, other than those disclosed above.

The Audit Committee is responsible for the appointment, compensation and oversight of the work of the independent registered public accountants, and approves in advance any services to be performed by the independent registered public accountants, whether audit-related or not. The Audit Committee reviews each proposed engagement to determine whether the provision of services is compatible with maintaining the independence of the independent registered public accountants. The fees shown above were pre-approved either by our Board or our Audit Committee.

**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.**

Exhibit No.

- 3.1 Certificate of Incorporation, incorporated by reference to the registrant's Current Report on Form 8-K for an event dated December 19, 2014, wherein such document is identified as Exhibit 3.3
- 3.2 Certificate of Amendment of Certificate of Incorporation filed with the State of Delaware on July 2, 2015, incorporated by reference to the registrant's Current Report on Form 8-K for an event dated July 6, 2015, wherein such document is identified as Exhibit 3.1
- 3.3 Bylaws, incorporated by reference to the registrant's Current Report on Form 8-K for an event dated December 19, 2014, wherein such document is identified as Exhibit 3.4
- 10.1 2010 Equity Participation Plan, as amended\*
- 10.2 Executive Employment Agreement, dated as of March 9, 2015, between BioRestorative Therapies, Inc. and Mark Weinreb ("Weinreb Employment Agreement"), incorporated by reference to the registrant's Annual Report for the year ended December 31, 2014, wherein such document is identified as Exhibit 10.2
- 10.3 Amendment to Weinreb Employment Agreement, dated February 14, 2017, incorporated by reference to the registrant's Current Report on Form 8-K for an event dated February 8, 2017, wherein such document is identified as Exhibit 10.1.
- 10.4 Stock Option Agreement, dated December 15, 2010, between Stem Cell Assurance, Inc. and Mark Weinreb, incorporated by reference to the registrant's Form 10, wherein such document is identified as Exhibit 10.17
- 10.5 Amended and Restated Executive Employment Agreement, dated May 10, 2011, between Stem Cell Assurance, Inc. and Francisco Silva ("Silva Employment Agreement"), incorporated by reference to the registrant's Form 10, wherein such document is identified as Exhibit 10.23
- 10.6 Amendment to Silva Employment Agreement, dated November 4, 2011, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2011, wherein such document is identified as Exhibit 10.27
- 10.7 Amendment to Silva Employment Agreement, dated May 3, 2012, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2012, wherein such document is identified as Exhibit 10.29
- 10.8 Amendment to Silva Employment Agreement, dated December 7, 2012, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2012, wherein such document is identified as Exhibit 10.30

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- 10.9 Amendment to Silva Employment Agreement, dated March 9, 2015, incorporated by reference to the registrant's Annual Report for the year ended December 31, 2014, wherein such document is identified as Exhibit 10.20
- 10.10 Amendment to Silva Employment Agreement, dated March 1, 2017\*
- 10.11 Stock Option Agreement, dated April 5, 2011, between Stem Cell Assurance, Inc. and Francisco Silva, incorporated by reference to the registrant's Form 10, wherein such document is identified as Exhibit 10.24
- 10.12 License Agreement, dated as of January 27, 2012, between Regenerative Sciences, LLC and BioRestorative Therapies, Inc. ("License Agreement") incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2011, wherein such document is identified as Exhibit 10.44

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Amendment to License Agreement, dated March 21, 2012, incorporated by reference to the registrant's Annual  
10.13 Report on Form 10-K for the year ended December 31, 2011, wherein such document is identified as Exhibit  
10.45

Amendment to License Agreement, dated November 30, 2015, incorporated by reference to the registrant's  
10.14 Annual Report on Form 10-K for the year ended December 31, 2015, wherein such document is identified as  
Exhibit 10.20

Stock Option Agreement, dated as of February 10, 2012, between BioRestorative Therapies, Inc. and Mark  
10.15 Weinreb, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2011, wherein such document is identified as Exhibit 10.46

Stock Option Agreement, dated as of February 10, 2012, between BioRestorative Therapies, Inc. and A. Jeffrey  
10.16 Radov, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2011, wherein such document is identified as Exhibit 10.47

Stock Option Agreement, dated as of February 10, 2012, between BioRestorative Therapies, Inc. and Francisco  
10.17 Silva, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2011, wherein such document is identified as Exhibit 10.49

Consulting Agreement, dated as of August 16, 2012, between Wayne A. Marasco, M.D., Ph.D. and  
10.18 BioRestorative Therapies, Inc., incorporated by reference to the registrant's Annual Report on Form 10-K for the  
year ended December 31, 2012, wherein such document is identified as Exhibit 10.56

Stock Option Agreement, dated as of December 7, 2012, between BioRestorative Therapies, Inc. and Mark  
10.19 Weinreb, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2012, wherein such document is identified as Exhibit 10.58

Stock Option Agreement, dated as of December 7, 2012, between BioRestorative Therapies, Inc. and A. Jeffrey  
10.20 Radov, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2012, wherein such document is identified as Exhibit 10.59

Stock Option Agreement, dated as of December 7, 2012, between BioRestorative Therapies, Inc. and Francisco  
10.21 Silva, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2012, wherein such document is identified as Exhibit 10.61

Stock Option Agreement, dated as of October 4, 2013, between BioRestorative Therapies, Inc. and Mark  
10.22 Weinreb, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2013, wherein such document is identified as Exhibit 10.59

Stock Option Agreement, dated as of October 4, 2013, between BioRestorative Therapies, Inc. and A. Jeffrey  
10.23 Radov, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2013, wherein such document is identified as Exhibit 10.60

Stock Option Agreement, dated as of October 4, 2013, between BioRestorative Therapies, Inc. and Francisco  
10.24 Silva, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2013, wherein such document is identified as Exhibit 10.62

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Stock Option Agreement, dated as of February 18, 2014, between BioRestorative Therapies, Inc. and Mark  
10.25 Weinreb, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2013, wherein such document is identified as Exhibit 10.64

Stock Option Agreement, dated as of February 18, 2014, between BioRestorative Therapies, Inc. and A. Jeffrey  
10.26 Radov, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2013, wherein such document is identified as Exhibit 10.65

Stock Option Agreement, dated as of February 18, 2014, between BioRestorative Therapies, Inc. and Francisco  
10.27 Silva, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2013, wherein such document is identified as Exhibit 10.67

Consulting Agreement, dated as of February 20, 2014, between Gregory E. Lutz, M.D. and BioRestorative  
10.28 Therapies, Inc., incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended  
December 31, 2013, wherein such document is identified as Exhibit 10.69

Stock Option Agreement, dated as of March 12, 2014, between BioRestorative Therapies, Inc. and Francisco  
10.29 Silva, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December  
31, 2013, wherein such document is identified as Exhibit 10.70

Stock Option Agreement, dated as of June 27, 2014, between BioRestorative Therapies, Inc. and Paul Jude  
10.30 Tonna, incorporated by reference to the registrant's Quarterly Report on Form 10-Q for the period ended June 30,  
2014, wherein such document is identified as Exhibit 10.2

Lease, dated as of August 25, 2014, between BioRestorative Therapies, Inc. and 50 Republic Road, LLC,  
10.31 incorporated by reference to the registrant's Current Report on Form 8-K for an event dated August 25, 2014,  
wherein such document is identified as Exhibit 99.1

Stock Option Agreement, dated as of October 23, 2014, between BioRestorative Therapies, Inc. and Mark  
10.32 Weinreb, incorporated by reference to the registrant's Annual Report for the year ended December 31, 2014,  
wherein such document is identified as Exhibit 10.65

Stock Option Agreement, dated as of October 23, 2014, between BioRestorative Therapies, Inc. and A. Jeffrey  
10.33 Radov, incorporated by reference to the registrant's Annual Report for the year ended December 31, 2014,  
wherein such document is identified as Exhibit 10.66

Stock Option Agreement, dated as of October 23, 2014, between BioRestorative Therapies, Inc. and Francisco  
10.34 Silva, incorporated by reference to the registrant's Annual Report for the year ended December 31, 2014,  
wherein such document is identified as Exhibit 10.67

Stock Option Agreement, dated as of October 23, 2014, between BioRestorative Therapies, Inc. and Paul Jude  
10.35 Tonna, incorporated by reference to the registrant's Annual Report for the year ended December 31, 2014,  
wherein such document is identified as Exhibit 10.70

Executive Employment Agreement, dated as of February 9, 2015, between BioRestorative Therapies, Inc. and  
10.36 Edward L. Field ("Field Employment Agreement"), incorporated by reference to the registrant's Annual Report for  
the year ended December 31, 2014, wherein such document is identified as Exhibit 10.72

10.37 Amendment to Field Employment Agreement, dated March 1, 2017\*

10.38 Stock Option Agreement, dated as of February 9, 2015, between BioRestorative Therapies, Inc. and Edward L.  
Field, incorporated by reference to the registrant's Annual Report for the year ended December 31, 2014,



wherein such document is identified as Exhibit 10.73

10.39 Stock Option Agreement, dated as of April 6, 2015, between BioRestorative Therapies, Inc. and Charles S. Ryan, J.D., Ph.D., incorporated by reference to the registrant's Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.74

10.40 Exchange Agreement, dated as of May 27, 2015, between BioRestorative Therapies, Inc. and Westbury (Bermuda) Ltd., incorporated by reference to the registrant's Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.75

10.41 Stock Option Agreement, dated as of September 4, 2015, between BioRestorative Therapies, Inc. and Mark Weinreb, incorporated by reference to the registrant's Amendment No. 1 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.77

10.42 Stock Option Agreement, dated as of September 4, 2015, between BioRestorative Therapies, Inc. and A. Jeffrey Radov, incorporated by reference to the registrant's Amendment No. 1 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.78

10.43 Stock Option Agreement, dated as of September 4, 2015, between BioRestorative Therapies, Inc. and Edward L. Field, incorporated by reference to the registrant's Amendment No. 1 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.79

10.44 Stock Option Agreement, dated as of September 4, 2015, between BioRestorative Therapies, Inc. and Francisco Silva, incorporated by reference to the registrant's Amendment No. 1 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.80

10.45 Stock Option Agreement, dated as of September 4, 2015, between BioRestorative Therapies, Inc. and Paul Jude Tonna, incorporated by reference to the registrant's Amendment No. 1 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.82

10.46 Stock Option Agreement, dated as of September 4, 2015, between BioRestorative Therapies, Inc. and Charles S. Ryan, J.D., Ph.D., incorporated by reference to the registrant's Amendment No. 1 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.83

10.47 Promissory Note, dated October 9, 2015, issued by BioRestorative Therapies, Inc. to Westbury FCR, Inc. in the principal amount of \$150,000, incorporated by reference to the registrant's Amendment No. 2 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.84

10.48 Security Agreement, dated as of October 9, 2015, between Westbury FCR, Inc. and BioRestorative Therapies, Inc., incorporated by reference to the registrant's Amendment No. 2 to Form S-1 Registration Statement (Registration No. 333-204672), wherein such document is identified as Exhibit 10.85

10.49 Letter agreement, dated December 7, 2015, between BioRestorative Therapies, Inc. and Westbury FCR, Inc., incorporated by reference to the registrant's Annual Report for the year ended December 31, 2015, wherein such document is identified as Exhibit 10.61

10.50 Subscription Agreement, dated as of November 17, 2015, between BioRestorative Therapies, Inc. and John M. Desmarais, incorporated by reference to Mr. Desmarais' Schedule 13D, wherein such document is identified as Exhibit 7.1

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Warrant, dated November 17, 2015, issued by BioRestorative Therapies, Inc. to John M. Desmarais for the 10.51 purchase of 125,000 shares of common stock, incorporated by reference to Mr. Desmarais' Schedule 13D, wherein such document is identified as Exhibit 7.2

- 10.52 Stock Option Agreement, dated as of December 1, 2015, between BioRestorative Therapies, Inc. and John M. Desmarais, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2015, wherein such document is identified as Exhibit 10.64
- 10.53 Stock Option Agreement, dated as of February 19, 2016, between BioRestorative Therapies, Inc. and Robert B. Catell, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2015, wherein such document is identified as Exhibit 10.65
- 10.54 Warrant, dated February 29, 2016, issued by BioRestorative Therapies, Inc. to Robert B. Catell for the purchase of 37,500 shares of common stock incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2015, wherein such document is identified as Exhibit 10.66
- 10.55 Warrant, dated March 18, 2016, issued by BioRestorative Therapies, Inc. to John M. Desmarais for the purchase of 250,000 shares of common stock, incorporated by reference to Amendment No. 1 to Mr. Desmarais' Schedule 13D, wherein such document is identified as Exhibit 7.2
- 10.56 Warrant, dated March 18, 2016, issued by BioRestorative Therapies, Inc. to John M. Desmarais for the purchase of 444,444 shares of common stock, incorporated by reference to Amendment No. 1 to Mr. Desmarais' Schedule 13D, wherein such document is identified as Exhibit 7.3
- 10.57 Warrant, dated March 18, 2016, issued by BioRestorative Therapies, Inc. to John M. Desmarais for the purchase of 400,000 shares of common stock, incorporated by reference to Amendment No. 1 to Mr. Desmarais' Schedule 13D, wherein such document is identified as Exhibit 7.4
- 10.58 Form of Stock Option Agreement, dated as of June 10, 2016, between BioRestorative Therapies, Inc. and each of Robert B. Catell, John M. Desmarais, A. Jeffrey Radov, Charles S. Ryan and Paul Jude Tonna\*
- 10.59 Form of Stock Option Agreement, dated as of June 10, 2016, between BioRestorative Therapies, Inc. and each of Edward L. Field and Francisco Silva\*
- 10.60 Stock Option Agreement, dated as of June 10, 2016, between BioRestorative Therapies, Inc. and Mark Weinreb\*
- 10.61 Promissory Note, dated June 30, 2016, issued by BioRestorative Therapies, Inc. to Tuxis Trust in the principal amount of \$500,000\*

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- 10.62 Warrant, dated June 30, 2016, issued by BioRestorative Therapies, Inc. to Tuxis Trust for the purchase of 40,000 shares of common stock\*
- 10.63 Promissory Note, dated August 5, 2016, issued by BioRestorative Therapies, Inc. to Robert B. Catell in the principal amount of \$100,000\*
- 10.64 Warrant, dated August 5, 2016, issued by BioRestorative Therapies, Inc. to Robert B. Catell for the purchase of 8,000 shares of common stock\*
- 10.65 Warrant, dated September 26, 2016, issued by BioRestorative Therapies, Inc. to John M. Desmarais for the purchase of 80,000 shares of common stock\*
- 10.66 Letter agreement, dated September 26, 2016, between BioRestorative Therapies, Inc. and John M. Desmarais\*
- 10.67 Promissory Note, dated December 14, 2016, issued by BioRestorative Therapies, Inc. to John M. Desmarais in the principal amount of \$65,000\*
- 10.68 Letter agreement, dated December 14, 2016, between BioRestorative Therapies, Inc. and John M. Desmarais\*
- 10.69 Promissory Note, dated January 3, 2017, issued by BioRestorative Therapies, Inc. to St. George Investments LLC in the principal amount of \$242,000\*
- 10.70 Form of Warrant, dated March 1, 2017, issued by BioRestorative Therapies, Inc. to each of Robert B. Catell, John M. Desmarais, Charles S. Ryan and Paul Jude Tonna\*
- 14 Code of Ethics, incorporated by reference to the registrant's Annual Report on Form 10-K for the year ended December 31, 2011, wherein such document is identified as Exhibit 14
- 21 Subsidiaries\*
- 23 Independent Registered Public Accounting Firm's Consent\*
- 31.1 Principal Executive Officer Certification\*
- 31.2 Principal Financial Officer Certification\*
- 32 Section 1350 Certification\*\*
- 101.INS XBRL Instance Document \*
- 101.SCH XBRL Schema Document \*
- 101.CAL XBRL Calculation Linkbase Document\*
- 101.DEF XBRL Definition Linkbase Document\*
- 101.LAB XBRL Label Linkbase Document\*
- 101.PRE XBRL Presentation Linkbase Document\*

\* Filed herewith

\*\* Furnished herewith

**ITEM 16. FORM 10-K SUMMARY.**

Not applicable.

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**SIGNATURES**

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

**BIORESTORATIVE  
THERAPIES, INC.**

Dated: March 21, 2017 By: */s/ Mark Weinreb*  
Mark Weinreb  
Chief Executive Officer

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

| <b>Signature</b>                                  | <b>Capacity</b>  | <b>Date</b>    |
|---|--|----------------|
| <i>/s/ Mark Weinreb</i><br>Mark Weinreb           | Chief Executive Officer, President, Chairman of the Board and Director (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer) | March 21, 2017 |
| <i>/s/ Robert B. Catell</i><br>Robert B. Catell   | Director   | March 21, 2017 |
| <i>/s/ John M. Desmarais</i><br>John M. Desmarais | Director   | March 21, 2017 |
| <i>/s/ A. Jeffrey Radov</i><br>A. Jeffrey Radov   | Director   | March 21, 2017 |
| <i>/s/ Charles S. Ryan</i>                        | Director   | March 21,      |

Charles S. Ryan

2017

*/s/ Paul Jude  
Tonna*

Director

March  
21,  
2017

Paul Jude Tonna

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**BIORESTORATIVE THERAPIES, INC.**

CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee of the  
Board of Directors and Stockholders  
of BioRestorative Therapies, Inc.

We have audited the accompanying consolidated balance sheets of BioRestorative Therapies, Inc. (the “Company”) as of December 31, 2016 and 2015, and the related consolidated statements of operations, changes in stockholders’ deficiency, 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 audits 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 audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit 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 BioRestorative Therapies, Inc. as of December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As more fully discussed in Note 2, the Company has a significant working capital deficiency, has incurred recurring net losses and needs to raise additional funds to meet its obligations and sustain its operations. These conditions raise substantial doubt about the Company’s ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

*/s/ Marcum LLP*

Marcum LLP  
New York, NY  
March 21, 2017

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**BIORESTORATIVE THERAPIES, INC.****Consolidated Balance Sheets**

|   | December 31, |              |
|---|--------------|--------------|
|   | 2016         | 2015         |
| Assets  |              |              |
| Current Assets:   |              |              |
| Cash  | \$31,822     | \$166,555    |
| Accounts receivable   | 6,000        | 93,375       |
| Prepaid expenses and other current assets   | 23,854       | 29,348       |
| Total Current Assets  | 61,676       | 289,278      |
| Property and equipment, net   | 508,594      | 643,087      |
| Intangible assets, net  | 963,845      | 1,038,741    |
| Security deposit  | 45,900       | 45,900       |
| Total Assets  | \$1,580,015  | \$2,017,006  |
| Liabilities and Stockholders' Deficiency  |              |              |
| Current Liabilities:  |              |              |
| Accounts payable  | \$2,283,981  | \$2,549,042  |
| Accrued expenses and other current liabilities  | 1,574,659    | 2,046,795    |
| Accrued interest  | 127,375      | 6,823        |
| Current portion of notes payable, net of debt discount of \$152,720 and \$150,286 at December 31, 2016 and 2015, respectively   | 1,858,845    | 1,009,797    |
| Total Current Liabilities   | 5,844,860    | 5,612,457    |
| Accrued expenses, non-current portion   | 430,000      | -            |
| Accrued interest, non-current portion   | 7,681        | 11,011       |
| Notes payable, non-current portion, net of debt discount of \$27,244 and \$7,999 at December 31, 2016 and 2015, respectively  | 297,756      | 302,001      |
| Total Liabilities   | 6,580,297    | 5,925,469    |
| Commitments and contingencies   |              |              |
| Stockholders' Deficiency:   |              |              |
| Preferred stock, \$0.01 par value; Authorized, 5,000,000 shares; none issued and outstanding at December 31, 2016 and 2015  | -            | -            |
| Common stock, \$0.001 par value; Authorized, 30,000,000 shares; Issued 4,699,035 and 3,338,661 shares at December 31, 2016 and 2015, respectively; Outstanding 4,699,035 and 3,310,729 shares at December 31, 2016 and 2015, respectively | 4,699        | 3,339        |
| Additional paid-in capital  | 36,954,817   | 29,443,704   |
| Accumulated deficit   | (41,959,798) | (33,323,506) |
| Treasury stock, at cost, 0 and 27,932 shares at December 31, 2016 and 2015, respectively  | -            | (32,000 )    |
| Total Stockholders' Deficiency  | (5,000,282 ) | (3,908,463 ) |
| Total Liabilities and Stockholders' Deficiency  | \$1,580,015  | \$2,017,006  |

See Notes to these Consolidated Financial Statements

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**BIORESTORATIVE THERAPIES, INC.****Consolidated Statements of Operations**

|   | For the Years Ended,<br>December 31, |                      |
|---|--------------------------------------|----------------------|
|   | 2016                                 | 2015                 |
| Revenues  | \$ 36,355                            | \$ 628,915           |
| Cost of sales   | 102                                  | 261,504              |
| Gross Profit  | 36,253                               | 367,411              |
| Operating Expenses                                      |                                      |                      |
| Marketing and promotion                                 | 86,451                               | 168,352              |
| Consulting  | 1,605,917                            | 1,394,037            |
| Research and development                                | 2,883,563                            | 2,105,059            |
| General and administrative                              | 3,257,579                            | 3,870,325            |
| Total Operating Expenses                                | 7,833,510                            | 7,537,773            |
| Loss From Operations                                    | (7,797,257)                          | (7,170,362)          |
| Other Income (Expense)                                  |                                      |                      |
| Interest expense  | (221,608 )                           | (263,583 )           |
| Amortization of debt discount                           | (542,336 )                           | (339,443 )           |
| Loss on extinguishment of notes payable, net            | (58,787 )                            | (35,677 )            |
| Warrant modification expense                            | (28,486 )                            | (114,415 )           |
| Gain on settlement of payables                          | 12,182                               | —                    |
| Total Other Expense                                     | (839,035 )                           | (753,118 )           |
| <b>Net Loss</b>   | <b>\$(8,636,292)</b>                 | <b>\$(7,923,480)</b> |
| Net Loss Per Share                                      |                                      |                      |
| - Basic and Diluted                                     | \$(2.10 )                            | \$(3.20 )            |
| Weighted Average Number of<br>Common Shares Outstanding |                                      |                      |
| - Basic and Diluted                                     | 4,105,820                            | 2,472,889            |

See Notes to these Consolidated Financial Statements

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**BIORESTORATIVE THERAPIES, INC.****Consolidated Statements of Changes in Stockholders' Deficiency****For the Years Ended December 31, 2016 and 2015**

|   | <b>Common Stock<br/>Shares</b> | <b>Common Stock<br/>Amount</b> | <b>Additional<br/>Paid-In<br/>Capital</b> | <b>Accumulated<br/>Deficit</b> | <b>Treasury Stock<br/>Shares</b> | <b>Treasury Stock<br/>Amount</b> | <b>Total</b>  |
|---|--------------------------------|--------------------------------|---|--------------------------------|----------------------------------|----------------------------------|---------------|
| <b>Balance - December 31,<br/>2014</b>  | 1,725,596                      | \$ 1,726                       | \$ 18,541,907                             | \$(25,400,026)                 | (27,932)                         | \$(32,000)                       | \$(6,888,393) |
| Shares and warrants issued<br>for cash  | 395,425                        | 395                            | 2,033,305                                 | -                              | -                                | -                                | 2,033,700     |
| Exercise of warrants for<br>purchase of common stock                                  | 75,473                         | 76                             | 264,068                                   | -                              | -                                | -                                | 264,144       |
| Conversion of notes payable<br>and accrued interest into<br>common stock              | 53,595                         | 54                             | 238,454                                   | -                              | -                                | -                                | 238,508       |
| Shares issued in satisfaction<br>of accrued services                                  | 943                            | 1                              | 8,480                                     | -                              | -                                | -                                | 8,481         |
| Shares and warrants issued<br>in connection with<br>settlement agreement              | 4,230                          | 4                              | 151,996                                   | -                              | -                                | -                                | 152,000       |
| Shares and warrants issued<br>as debt discount in<br>connection with notes<br>payable | 10,000                         | 10                             | 178,883                                   | -                              | -                                | -                                | 178,893       |
| Shares and warrants issued<br>in exchange for notes<br>payable and accrued interest   | 1,028,237                      | 1,028                          | 5,754,844                                 | -                              | -                                | -                                | 5,755,872     |
| Warrant modifications   | -                              | -                              | 229,288                                   | -                              | -                                | -                                | 229,288       |
| Beneficial conversion<br>features related to<br>convertible notes payable             | -                              | -                              | 87,788                                    | -                              | -                                | -                                | 87,788        |
| Stock-based compensation:   |                                |                                |   |                                |                                  |                                  |               |
| - common stock  | 43,698                         | 44                             | 177,603                                   | -                              | -                                | -                                | 177,647       |
| - options and warrants  | -                              | -                              | 1,777,089                                 | -                              | -                                | -                                | 1,777,089     |
| Impact of share rounding as<br>a result of reverse stock split                        | 1,464                          | 1                              | (1 )                                      | -                              | -                                | -                                | -             |
| Net loss  | -                              | -                              | -   | (7,923,480 )                   | -                                | -                                | (7,923,480)   |
| <b>Balance - December 31,<br/>2015</b>  | 3,338,661                      | \$ 3,339                       | \$ 29,443,704                             | \$(33,323,506)                 | (27,932)                         | \$(32,000)                       | \$(3,908,463) |
|   | 956,833                        | 956                            | 3,497,382                                 | -                              | -                                | -                                | 3,498,338     |



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|  |                  |                 |                     |                       |          |            |                      |
|--|------------------|-----------------|---------------------|-----------------------|----------|------------|----------------------|
| Shares and warrants issued for cash  |                  |                 |                     |                       |          |            |                      |
| Exercise of warrants for purchase of common stock  | 60,831           | 61              | 212,837             |                       | -        |            | 212,898              |
| Conversion of notes payable and accrued interest into common stock                               | 137,006          | 137             | 341,615             | -                     | -        | -          | 341,752              |
| Shares issued in satisfaction of accrued services  | 13,208           | 13              | 27,540              | -                     | -        | -          | 27,553               |
| Shares and warrants issued as debt discount in connection with notes payable                     | 6,000            | 6               | 246,206             | -                     | -        | -          | 246,212              |
| Shares and warrants issued in exchange for notes payable, convertible notes and accrued interest | 167,027          | 167             | 352,426             | -                     | -        | -          | 352,593              |
| Warrant modifications  | -                | -               | 96,634              | -                     | -        | -          | 96,634               |
| Beneficial conversion features related to convertible notes payable                              | -                | -               | 231,708             | -                     | -        | -          | 231,708              |
| Stock-based compensation:  |                  |                 |                     |                       |          |            |                      |
| - common stock   | 54,901           | 55              | 116,903             | -                     | -        | -          | 116,958              |
| - options and warrants   | -                | -               | 2,436,702           | -                     | -        | -          | 2,436,702            |
| Return of shares to treasury previously issued as compensation                                   | -                | -               | -                   | -                     | (7,500 ) | (16,875 )  | (16,875 )            |
| Retirement of treasury shares  | (35,432 )        | (35 )           | (48,840 )           | -                     | 35,432   | 48,875     | -                    |
| Net loss   | -                | -               | -                   | (8,636,292 )          | -        | -          | (8,636,292)          |
| <b>Balance - December 31, 2016</b>   | <b>4,699,035</b> | <b>\$ 4,699</b> | <b>\$36,954,817</b> | <b>\$(41,959,798)</b> | <b>-</b> | <b>\$-</b> | <b>\$(5,000,282)</b> |

See Notes to these Consolidated Financial Statements

**BIORESTORATIVE THERAPIES, INC.****Consolidated Statements of Cash Flows**

|   | For the Years Ended<br>December 31, |                    |
|---|-------------------------------------|--------------------|
|   | 2016                                | 2015               |
| Cash Flows From Operating Activities  |                                     |                    |
| Net loss  | \$(8,636,292)                       | \$(7,923,480)      |
| Adjustments to reconcile net loss to net cash used in operating activities: |                                     |                    |
| Amortization of debt discount   | 542,336                             | 339,443            |
| Accretion of interest expense   | 40,052                              | 85,086             |
| Depreciation and amortization   | 258,425                             | 213,784            |
| Stock-based compensation  | 2,536,785                           | 1,954,736          |
| Loss on extinguishment of note payables, net                                | 58,787                              | 35,677             |
| Warrant modification expense  | 28,486                              | 114,415            |
| Gain on settlement of payables  | (12,182 )                           | -                  |
| Changes in operating assets and liabilities:                                |                                     |                    |
| Accounts receivable   | 87,375                              | (93,375 )          |
| Prepaid expenses and other current assets                                   | 5,494                               | (6,833 )           |
| Accounts payable  | (113,151 )                          | 1,381,407          |
| Accrued interest  | 120,552                             | (81,387 )          |
| Accrued expenses and other current liabilities                              | 80,658                              | 1,022,813          |
| Deferred revenues   | -                                   | (164,349 )         |
| <b>Total Adjustments</b>  | <b>3,633,617</b>                    | <b>4,801,417</b>   |
| <b>Net Cash Used In Operating Activities</b>                                | <b>(5,002,675)</b>                  | <b>(3,122,063)</b> |
| Cash Flows From Investing Activities  |                                     |                    |
| Purchases of property and equipment   | (188,764 )                          | (408,069 )         |
| License maintenance costs   | -                                   | (75,000 )          |
| <b>Net Cash Used In Investing Activities</b>                                | <b>(188,764 )</b>                   | <b>(483,069 )</b>  |
| Cash Flows From Financing Activities  |                                     |                    |
| Proceeds from notes payable   | 1,894,000                           | 1,210,015          |
| Repayments of notes payable   | (476,500 )                          | (5,000 )           |
| Advances from director, officer and family member of officer                | 292,090                             | 564,105            |
| Repayments of advances from an officer and a director                       | (364,120 )                          | (387,075 )         |
| Proceeds from exercise of warrants  | 212,898                             | 264,144            |
| Sales of common stock and warrants for cash                                 | 3,498,338                           | 2,033,700          |
| <b>Net Cash Provided By Financing Activities</b>                            | <b>5,056,706</b>                    | <b>3,679,889</b>   |
| <b>Net (Decrease) Increase In Cash</b>                                      | <b>(134,733 )</b>                   | <b>74,757</b>      |
| Cash - Beginning  | 166,555                             | 91,798             |
| Cash - Ending   | \$31,822                            | \$166,555          |

See Notes to these Consolidated Financial Statements

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**BIORESTORATIVE THERAPIES, INC.****Consolidated Statements of Cash Flows -- Continued**

|  | For The Years Ended<br>December 31, |             |
|--|-------------------------------------|-------------|
|  | 2016                                | 2015        |
| Supplemental Disclosures of Cash Flow Information:   |                                     |             |
| Cash paid during the period for:   |                                     |             |
| Interest   | \$30,406                            | \$61,453    |
| Non-cash investing and financing activities:   |                                     |             |
| Warrant modification in connection with extension or exchanges of notes payable                  | \$96,634                            | \$114,873   |
| Shares and warrants issued as debt discount in connection with notes payable                     | \$246,212                           | \$178,893   |
| Shares and warrants issued in exchange for notes payable, convertible notes and accrued interest | \$352,593                           | \$5,720,195 |
| Conversion of notes payable and accrued interest into common stock                               | \$341,752                           | \$238,508   |
| Shares issued in satisfaction of accrued consulting and director services                        | \$27,553                            | \$8,481     |
| Accrued interest reclassified as principal in connection with note payable reissuance            | \$-                                 | \$44,379    |
| Beneficial conversion features set up as debt discount   | \$231,708                           | \$87,788    |
| Accrued deferred offering costs  | \$-                                 | \$333,117   |
| Shares and warrants issued in connection with settlement agreement                               | \$-                                 | \$152,000   |
| Accrued liabilities associated with purchases of property and equipment                          | \$-                                 | \$139,729   |
| Advances converted into note payable, related party  | \$-                                 | \$65,000    |
| Indebtness satisfied via legal settlement  | \$-                                 | \$5,000     |
| Retirement of treasury shares  | \$48,875                            | \$-         |

See Notes to these Consolidated Financial Statements

## **BIORESTORATIVE THERAPIES, INC.**

### Notes to Consolidated Financial Statements

#### Note 1 – Business Organization and Nature of Operations

BioRestorative Therapies, Inc. has two wholly-owned subsidiaries, Stem Pearls, LLC (“Stem Pearls”) and Stem Cell Cayman Ltd. (“Cayman”), which was formed in the Cayman Islands (collectively, “BRT” or the “Company”). On December 19, 2016, the Company submitted its request to the appropriate Cayman authorities for the dissolution of Cayman and is currently awaiting confirmation of the dissolution (See Note 3 – Summary of Significant Accounting Policies – Principles of Consolidation). BRT develops therapeutic products and medical therapies using cell and tissue protocols, primarily involving adult stem cells. BRT’s website is at [www.biorestorative.com](http://www.biorestorative.com). BRT is currently developing a Disc/Spine Program referred to as “brtxDISC”. Its lead cell therapy candidate, BRTX-100, is a product formulated from autologous (or a person’s own) cultured mesenchymal stem cells collected from the patient’s bone marrow. The product is intended to be used for the non-surgical treatment of protruding and bulging lumbar discs in patients suffering from chronic lumbar disc disease. BRT is also engaging in research efforts with respect to a platform technology utilizing brown adipose (fat) for therapeutic purposes to treat metabolic disease and has labeled this initiative its “ThermoStem Program.” Through the program, BRT is developing a cell-based therapy to target type 2 diabetes, obesity and other metabolic disorders using brown adipose (fat) derived stem cells to generate brown adipose tissue (“BAT”). BAT is intended to mimic naturally occurring brown adipose depots that regulate metabolic homeostasis in humans. Further, BRT has licensed a patented curved needle device that is a needle system to allow access to difficult to locate regions for the delivery or removal of fluids and other substances. BRT’s Stem Pearls brand offers plant stem cell-based cosmetic skincare products that are available for purchase online at [www.stempearls.com](http://www.stempearls.com).

Effective January 1, 2015, the Company changed its state of incorporation from the State of Nevada to the State of Delaware pursuant to a plan of conversion, dated December 22, 2014 (the “Plan of Conversion”). Pursuant to the Plan of Conversion, the Company also adopted new bylaws, which became effective on January 1, 2015.

Effective July 7, 2015, pursuant to authority granted by the stockholders of the Company, the Company implemented a 1-for-20 reverse split of the Company’s issued and outstanding common stock (the “Reverse Split”) and a reduction in the number of shares of common stock authorized to be issued by the Company from 200,000,000 to 30,000,000. All share and per share information has been retroactively adjusted to reflect the Reverse Split for all periods presented.

#### Note 2 – Going Concern and Management’s Plans

As of December 31, 2016, the Company had a working capital deficiency and a stockholders' deficiency of \$5,783,184 and \$5,000,282, respectively. During the years ended December 31, 2016 and 2015, the Company incurred net losses of \$8,636,292 and \$7,923,480, respectively. These conditions indicate that there is substantial doubt about the Company's ability to continue as a going concern within the next twelve months from the filing date of this report.

The Company's primary source of operating funds since inception has been equity and debt financings. The Company intends to continue to raise additional capital through debt and equity financings. There is no assurance that these funds will be sufficient to enable the Company to fully complete its development activities or attain profitable operations. If the Company is unable to obtain such additional financing on a timely basis or, notwithstanding any request the Company may make, the Company's debt holders do not agree to convert their notes into equity or extend the maturity dates of their notes, the Company may have to curtail its development, marketing and promotional activities, which would have a material adverse effect on the Company's business, financial condition and results of operations, and ultimately the Company could be forced to discontinue its operations and liquidate.

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"), which contemplate continuation of the Company as a going concern and the realization of assets and satisfaction of liabilities in the normal course of business. The carrying amounts of assets and liabilities presented in the financial statements do not necessarily purport to represent realizable or settlement values. The consolidated financial statements do not include any adjustment that might result from the outcome of this uncertainty.

## **BIORESTORATIVE THERAPIES, INC.**

### **Notes to Consolidated Financial Statements**

#### **Note 2 – Going Concern and Management’s Plans – Continued**

Subsequent to December 31, 2016, the Company has received aggregate equity proceeds (including proceeds from the exercise of common stock purchase warrants) and debt proceeds of \$945,000 and \$200,000, respectively, debt and accrued interest of \$325,000 and \$9,679, respectively, has been converted into or exchanged for common stock, \$89,000 of debt and net short-term advances have been repaid and the due date for the repayment of \$322,000 of debt has been extended through April 2017. As a result, the Company expects to have the cash required to fund its operations through April 2017. While there can be no assurance that it will be successful, the Company is in negotiations to raise additional capital. As of the filing date of this report, the Company has notes payable with an aggregate principal balance of \$427,500 which are past due. The Company is currently in the process of negotiating extensions or discussing conversions to equity with respect to these notes. However, there can be no assurance that the Company will be successful in extending or converting these notes. See Note 11 – Subsequent Events for additional details.

#### Note 3 – Summary of Significant Accounting Policies

##### Principles of Consolidation

The consolidated financial statements of the Company include the accounts of Cayman and Stem Pearls. All significant intercompany transactions have been eliminated in the consolidation. As discussed above, the Company is in the process of dissolving Cayman, which had no material assets, liabilities or operations (other than intercompany balances) and is no longer needed to facilitate certain financings.

##### Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the dates of the financial statements and the reported amounts of revenue and expenses during the periods. The Company’s

significant estimates and assumptions include the recoverability and useful lives of long-lived assets, the fair value of the Company's stock, stock-based compensation, warrants issued in connection with notes payable and the valuation allowance related to the Company's deferred tax assets. Certain of the Company's estimates, including the carrying amount of the intangible assets, could be affected by external conditions, including those unique to the Company and general economic conditions. It is reasonably possible that these external factors could have an effect on the Company's estimates and could cause actual results to differ from those estimates.

#### Concentrations

Two pharmaceutical clients comprised substantially all of the Company's revenue during the year ended December 31, 2015. One license comprised substantially all of the Company's revenue during the year ended December 31, 2016. See Revenue Recognition – Research and Development Agreements below.

#### Cash

The Company maintains cash in bank accounts, which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts, periodically evaluates the creditworthiness of the financial institutions and has determined the credit exposure to be negligible.

#### Property and Equipment, net

Property and equipment are stated at cost, net of accumulated depreciation which is recorded commencing at the in-service date using the straight-line method at rates sufficient to charge the cost of depreciable assets to operations over their estimated useful lives, which range from 3 to 5 years. Leasehold improvements are amortized over the lesser of (a) the useful life of the asset; or (b) the remaining lease term. Maintenance and repairs are charged to operations as incurred. The Company capitalizes cost attributable to the betterment of property and equipment when such betterment extends the useful life of the assets.



## **BIORESTORATIVE THERAPIES, INC.**

### **Notes to Consolidated Financial Statements**

#### **Note 3 – Summary of Significant Accounting Policies – Continued**

##### Intangible Assets

Intangible assets are comprised of trademarks and licenses with original estimated useful lives of 10 and 17.7 years, respectively. Once placed into service, the Company amortizes the cost of the intangible assets over their estimated useful lives on a straight-line basis.

##### Impairment of Long-lived Assets

The Company reviews for the impairment of long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment loss would be recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. While the Company's near term liquidity is tight, historically the Company has been successful in raising capital as needed (although there can be no assurance that the Company will continue to be successful in raising capital as needed). The Company continues to progress its scientific agenda and meet related milestones. The Company has not identified any impairment losses.

##### Revenue Recognition

###### *Research and Development Agreements*

The Company's policy relating to research and development agreements is to recognize research and development revenues associated with such agreements either (a) on a straight-line basis over the term of the agreement, or (b) in accordance with the milestone method of revenue recognition, depending on the nature of the contract terms, subject to potential acceleration upon achievement of contractually specified deliverables.

As of December 31, 2015, the Company completed all of its obligations under research and development agreements entered into during 2014. During the years ended December 31, 2016 and 2015, the Company recognized \$0 and \$609,490, respectively, related to the Company's research and development agreements.

#### *Other*

The Company's policy is to recognize product sales when the risk of loss and title to the product transfers to the customer, after estimating potential returns. The Company recognizes sublicensing and royalty revenue when all of the following have occurred: (i) persuasive evidence of an arrangement exists, (ii) the service is completed without further obligation, (iii) the sales price to the customer is fixed or determinable, and (iv) collectability is reasonably assured.

In November 2015, the Company and a stem cell treatment company ("SCTC") entered into an amendment to a January 27, 2012 license agreement between them. Pursuant to the amendment, effective November 30, 2015, the Company granted to the SCTC a non-exclusive sublicense to use, and the right to sublicense to third parties the right to use, in certain locations in the United States, certain intellectual property related to stem cell disc procedures (that originally was licensed to the Company by the SCTC pursuant to the January 27, 2012 license agreement). In consideration of the sublicense, the SCTC has agreed to pay the Company royalties on a per disc procedure basis.

During the years ended December 31, 2016 and 2015, the Company recognized \$36,000 and \$19,000, respectively, of revenue related to the Company's sublicense agreements.

During the years ended December 31, 2016 and 2015, the Company recognized revenue related to sales of Stem Pearls skincare products of \$355 and \$425, respectively, with a related cost of sales of \$102 and \$54, respectively.

#### Income Taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of items that have been included or excluded in the financial statements or tax returns. Deferred tax assets and liabilities are determined on the basis of the difference between the tax basis of assets and liabilities and their respective financial reporting amounts ("temporary differences") at enacted tax rates in effect for the years in which the temporary differences are expected to reverse.



**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 3 – Summary of Significant Accounting Policies – Continued**

Income Taxes – Continued

The Company utilizes a recognition threshold and measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

Management has evaluated and concluded that there were no material uncertain tax positions requiring recognition in the Company's consolidated financial statements as of December 31, 2016 and 2015. The Company does not expect any significant changes in its unrecognized tax benefits within twelve months of the reporting date.

The Company's policy is to classify assessments, if any, for tax related interest as interest expense and penalties as general and administrative expenses in the consolidated statements of operations.

Net Loss Per Common Share

Basic loss per common share is computed by dividing net loss by the weighted average number of vested common shares outstanding during the period. Diluted earnings per share reflects the potential dilution that could occur if securities or other instruments to issue common stock were exercised or converted into common stock.

The following securities are excluded from the calculation of weighted average dilutive common shares because their inclusion would have been anti-dilutive:

December 31,

|                                   | 2016      | 2015      |
|-----------------------------------|-----------|-----------|
| Options                           | 2,168,950 | 1,330,450 |
| Warrants                          | 2,953,651 | 1,066,930 |
| Convertible notes                 | 211,162   | 148,708   |
| Total potentially dilutive shares | 5,333,763 | 2,546,088 |

### Stock-Based Compensation

The Company measures the cost of services received in exchange for an award of equity instruments based on the fair value of the award. For employees, the fair value of the award is measured on the grant date and for non-employees, the fair value of the award is generally re-measured on vesting dates and interim financial reporting dates until the service period is complete. The fair value amount is then recognized over the period during which services are required to be provided in exchange for the award, usually the vesting period. Since the shares underlying the Company's 2010 Equity Participation Plan (the "Plan") were registered on May 27, 2014, the Company estimates the fair value of the awards granted under the Plan based on the market value of its freely tradable common stock as reported on the OTCQB market. The fair value of the Company's restricted equity instruments was estimated by management based on observations of the cash sales prices of both restricted shares and freely tradable shares. Awards granted to directors are treated on the same basis as awards granted to employees. Upon the exercise of an option or warrant, the Company issues new shares of common stock out of its authorized shares.

### Advertising

Advertising costs are charged to operations as incurred. For the years ended December 31, 2016 and 2015, the Company incurred advertising costs of \$17,972 and \$23,467, respectively. Advertising expense is reflected in marketing and promotion expenses in the consolidated statements of operations.

### Research and Development

Research and development expenses are charged to operations as incurred. For the years ended December 31, 2016 and 2015, the Company incurred research and development expenses of \$2,883,563 and \$2,105,059, respectively.

## **BIORESTORATIVE THERAPIES, INC.**

### **Notes to Consolidated Financial Statements**

#### **Note 3 – Summary of Significant Accounting Policies – Continued**

##### Fair Value of Financial Instruments

The Company measures the fair value of financial assets and liabilities based on the guidance of ASC 820 “Fair Value Measurements and Disclosures” (“ASC 820”).

ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. ASC 820 describes three levels of inputs that may be used to measure fair value:

Level 1 – quoted prices in active markets for identical assets or liabilities

Level 2 – quoted prices for similar assets and liabilities in active markets or inputs that are observable

Level 3 – inputs that are unobservable (for example, cash flow modeling inputs based on assumptions)

The carrying amounts of accrued liabilities approximate fair value due to the short-term nature of these instruments. The carrying amounts of our short-term credit obligations approximate fair value because the effective yields on these obligations, which include contractual interest rates, taken together with other features such as concurrent issuance of warrants, are comparable to rates of returns for instruments of similar credit risk.

##### Convertible Instruments

The Company bifurcates conversion options from their host instruments and accounts for them as free standing derivative financial instruments according to certain criteria. 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.

When the Company has determined that the embedded conversion options should not be bifurcated from their host instruments, the Company records, when necessary, discounts to convertible notes for the intrinsic value of conversion options embedded in debt instruments (the beneficial conversion feature) based upon the differences between the fair value of the underlying common stock at the commitment date of the note transaction and the effective conversion price embedded in the note. Debt discounts under these arrangements are amortized over the term of the related debt to their stated date of redemption.

#### Subsequent Events

The Company evaluates events that have occurred after the balance sheet date but before the financial statements are issued. Based upon the evaluation, the Company did not identify any recognized or non-recognized subsequent events that would have required adjustment or disclosure in the consolidated financial statements, except as disclosed.

## **BIORESTORATIVE THERAPIES, INC.**

### **Notes to Consolidated Financial Statements**

#### **Note 3 – Summary of Significant Accounting Policies – Continued**

##### Recently Issued Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, “Revenue from Contracts with Customers,” (“ASU 2014-09”). ASU 2014-09 supersedes the revenue recognition requirements in ASC 605 - Revenue Recognition and most industry-specific guidance throughout the ASC. The standard requires that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. ASU 2014-09 should be applied retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying ASU 2014-09 recognized at the date of initial application. To allow entities additional time to implement systems, gather data and resolve implementation questions, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, in August 2015, to defer the effective date of ASU No. 2014-09 for one year, which is fiscal years beginning after December 15, 2017. The Company is currently evaluating the impact of the adoption of ASU 2014-09 on its consolidated financial statements or disclosures.

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” (“ASU 2014-15”). ASU 2014-15 explicitly requires management to evaluate, at each annual or interim reporting period, whether there are conditions or events that exist which raise substantial doubt about an entity’s ability to continue as a going concern and to provide related disclosures. ASU 2014-15 is effective for annual periods ending after December 15, 2016, and annual and interim periods thereafter, with early adoption permitted. The adoption of this standard did not have a material impact on the Company’s financial statement disclosures.

In April 2015, the FASB issued ASU No. 2015-03, “Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs”, or ASU 2015-03. ASU 2015-03 amends the existing guidance to require that debt issuance costs be presented in the balance sheet as a deduction from the carrying amount of the related debt liability instead of as a deferred charge. ASU 2015-03 is effective on a retrospective basis for annual and interim reporting periods beginning after December 15, 2015; earlier adoption is permitted. Additionally, in August 2015 the FASB issued guidance expanding the April 2015 update (ASU No. 2015-15). It states that, given the absence of authoritative guidance within the update, the SEC staff would not object to an entity deferring and presenting debt



issuance costs as an asset for revolving lines of credit and subsequently amortizing the deferred debt issuance costs ratably over the term of the arrangement, regardless of whether there are any outstanding borrowings on the line of credit. This guidance is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years, with early adoption permitted for financial statements that have not been previously issued. Full retrospective application is required. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)" ("ASU 2016-02"). ASU 2016-02 requires an entity to recognize assets and liabilities arising from a lease for both financing and operating leases. ASU 2016-02 will also require new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The Company is currently evaluating ASU 2016-02 and its impact on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, "Compensation – Stock Compensation (Topic 718)" ("ASU 2016-09"). ASU 2016-09 requires an entity to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. ASU 2016-09 is effective for fiscal years beginning after December 15, 2016, with early adoption permitted. The Company is currently evaluating ASU 2016-09 and its impact on its consolidated financial statements or disclosures.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 3 – Summary of Significant Accounting Policies – Continued**

Recently Issued Accounting Pronouncements – Continued

In April 2016, the FASB issued ASU 2016-10, “Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing” (“ASU 2016-10”). The amendments in this update clarify the following two aspects to Topic 606: identifying performance obligations and the licensing implementation guidance, while retaining the related principles for those areas. The entity first identifies the promised goods or services in the contract and reduces the cost and complexity. An entity evaluates whether promised goods and services are distinct. Topic 606 includes implementation guidance on determining whether an entity’s promise to grant a license provides a customer with either a right to use the entity’s intellectual property (which is satisfied at a point in time) or a right to access the entity’s intellectual property (which is satisfied over time). ASU 2016-10 is effective for fiscal years beginning after December 15, 2017, including interim reporting periods within that reporting period. The Company is currently evaluating ASU 2016-10 and its impact on its consolidated financial statements or disclosures.

In August 2016, the FASB issued ASU 2016-15, “Statement of Cash Flows (Topic 230) Classification of Certain Cash Receipts and Cash Payments” (“ASU 2016-15”). The new standard will make eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The new standard is effective for fiscal years beginning after December 15, 2017. The Company will require adoption on a retrospective basis unless it is impracticable to apply, in which case the Company would be required to apply the amendments prospectively as of the earliest date practicable. The Company is currently evaluating ASU 2016-15 and its impact on its consolidated financial statements or disclosures.

Note 4 – Property and Equipment, net

Property and equipment include the following:

December 31,

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|                                 | 2016      | 2015      |
|---------------------------------|-----------|-----------|
| Office equipment                | \$2,848   | \$9,494   |
| Medical equipment               | 446,506   | 418,280   |
| Furniture and fixtures          | 121,625   | 126,150   |
| Computer software and equipment | 74,572    | 85,118    |
| Leasehold improvements          | 304,661   | 301,610   |
|                                 | 950,212   | 940,652   |
| Less: accumulated depreciation  | (441,618) | (297,565) |
| Property and equipment, net     | \$508,594 | \$643,087 |

During the year ended December 31, 2016, the Company disposed of fully depreciated property and equipment in the amount of \$39,476. Depreciation expense amounted to \$183,529 and \$139,793 for the years ended December 31, 2016 and 2015, respectively. Depreciation expense is reflected in general and administrative expenses and research and development expenses in the consolidated statement of operations.

**BIORESTORATIVE THERAPIES, INC.**

## Notes to Consolidated Financial Statements

## Note 5 – Intangible Assets

On January 27, 2012, the Company entered into a license agreement with the SCTC (as amended in March 2012 and November 2015, the “SCTC Agreement”). On April 6, 2012 (the “Closing Date”), the Company and SCTC closed on the SCTC Agreement. Pursuant to the SCTC Agreement, the Company obtained, among other things, a worldwide, exclusive, royalty-bearing license from SCTC to utilize or sublicense a certain medical device patent for the administration of specific cells and/or cell products to the disc and/or spine (and other parts of the body) and a worldwide (excluding Asia and Argentina), exclusive, royalty-bearing license to utilize or sublicense a certain method for culturing cells. On March 5, 2015, the Company made a \$75,000 cash payment to retain the exclusivity of the license. Pursuant to the license agreement with SCTC, unless certain performance milestones are or have been satisfied, the Company would be required to pay to SCTC \$150,000 by April 2017 and an additional \$250,000 by April 2019 in order to maintain its exclusive rights with regard to the disc/spine technology. In February 2017, in connection with the Company receiving clearance from the Food and Drug Administration (the “FDA”) to proceed with a Phase 2 clinical trial, the Company believes that it has satisfied a performance milestone such that the Company would no longer be required to pay to the STC a minimum amount of \$150,000 by April 2017 to retain exclusive rights with regard to the disc/spine technology.

Intangible assets consist of the following:

|  | Patents and<br>Trademarks | Licenses    | Accumulated<br>Amortization | Total       |
|--|---------------------------|-------------|-----------------------------|-------------|
| Balance as of January 1, 2015  | \$ 3,676                  | \$1,226,500 | \$ (192,444 )               | \$1,037,732 |
| Additions  | -                         | 75,000      | -                           | 75,000      |
| Amortization expense   | -                         | -           | (73,991 )                   | (73,991 )   |
| Balance as of December 31, 2015  | 3,676                     | 1,301,500   | (266,435 )                  | 1,038,741   |
| Amortization expense   | -                         | -           | (74,896 )                   | (74,896 )   |
| Balance as of December 31, 2016  | \$ 3,676                  | \$1,301,500 | \$ (341,331 )               | \$963,845   |
| Weighted average remaining amortization period at December 31, 2016 in years | 4.0                       | 12.9        |                             |             |

Amortization of intangible assets consists of the following:

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|                                 | Patents and<br>Trademarks | Licenses  | Accumulated<br>Amortization |
|---------------------------------|---------------------------|-----------|-----------------------------|
| Balance as of January 1, 2015   | \$ 1,472                  | \$190,972 | \$ 192,444                  |
| Amortization expense            | 368                       | 73,623    | 73,991                      |
| Balance as of December 31, 2015 | 1,840                     | 264,595   | 266,435                     |
| Amortization expense            | 368                       | 74,528    | 74,896                      |
| Balance as of December 31, 2016 | \$ 2,208                  | \$339,123 | \$ 341,331                  |

Amortization expense is reflected in general and administrative expenses in the consolidated statements of operations. Based upon the current intangible assets as of December 31, 2016, amortization expense is projected to be approximately \$75,000 per annum through 2029.

**BIORESTORATIVE THERAPIES, INC.**

## Notes to Consolidated Financial Statements

## Note 6 – Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities are comprised of the following:

|   | December 31, |             |
|---|--------------|-------------|
|   | 2016         | 2015        |
| Credit card payable                         | \$1,778      | \$3,171     |
| Accrued payroll                             | 880,293      | 1,010,633   |
| Advances from related parties               | -            | 87,030      |
| Accrued research and development expenses   | 406,175      | 446,175     |
| Accrued general and administrative expenses | 233,468      | 456,182     |
| Deferred rent                               | 52,945       | 43,604      |
| Accrued expenses, current portion           | 1,574,659    | 2,046,795   |
| Accrued expenses, non-current portion       | 430,000      | -           |
| Total accrued expenses                      | \$2,004,659  | \$2,046,795 |

During the year ended December 31, 2016, the Company received an aggregate of \$292,090 in non-interest bearing advances from an officer, directors and a consultant of the Company and made aggregate repayments of \$364,120. During the year ended December 31, 2015, the Company received an aggregate of \$564,105 in non-interest bearing advances from an officer, directors, a family member of an officer and a consultant of the Company and made aggregate repayments of \$387,075, converted a related party advance in the amount of \$65,000 into a non-interest bearing note payable in the principal amount of \$75,000 with a maturity date of October 30, 2015 (see Note 7) and, in December 2015, exchanged an advance in the amount of \$25,000 for 6,250 shares of common stock valued at \$14,063 and a five-year warrant to purchase 6,250 shares of common stock at an exercise price of \$4.00 per share with a grant date value of \$11,063. During the year ended December 31, 2015, the Company recognized a \$126 loss on the extinguishment of the advance in connection with the exchange for the shares of common stock and a warrant.

As of December 31, 2016, the Company reclassified accrued expenses in the aggregate amount of \$255,000 to accrued expenses, non-current portion, on the consolidated balance sheets related to accrued consulting and directors fees that were exchanged for shares of common stock and warrants subsequent to December 31, 2016. See Note 11 – Subsequent Events for additional details regarding the exchange of accrued consulting and directors fees

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**BIORESTORATIVE THERAPIES, INC.**

## Notes to Consolidated Financial Statements

## Note 7 – Notes Payable

A summary of the notes payable activity during the years ended December 31, 2016 and 2015 is presented below:

|   | Related<br>Party<br>Notes | Convertible<br>Notes | Other<br>Notes | Debt<br>Discount | Total        |
|---|---------------------------|----------------------|----------------|------------------|--------------|
| Outstanding, January 1, 2015                        | \$4,410,937               | \$ 175,000           | \$1,265,559    | \$(113,257)      | \$5,738,239  |
| Issuances   | 150,000                   | 735,000 [1]          | 478,018 [1]    | -                | 1,363,018    |
| Indebtedness satisfied via settlement               | -                         | -                    | (5,000 )       | -                | (5,000 )     |
| Exchanges for equity                                | (4,410,937)               | (266,667 )           | (877,873 )     | -                | (5,555,477)  |
| Conversions to equity                               | -                         | (223,333 )           | -              | -                | (223,333 )   |
| Repayments  | -                         | -                    | (5,000 )       | -                | (5,000 )     |
| Recognition of debt discount                        | -                         | -                    | -              | (469,557)[1]     | (469,557 )   |
| Accretion of interest expense                       | -                         | -                    | -              | 85,086 [1]       | 85,086       |
| Amortization of debt discount                       | -                         | -                    | -              | 339,443          | 339,443      |
| Recharacterization of accrued interest as principal | -                         | -                    | 44,379 [2]     | -                | 44,379       |
| Outstanding, December 31, 2015                      | \$ 150,000                | \$ 420,000 [3]       | \$ 900,083     | \$(158,285)      | \$ 1,311,798 |
| Issuances   | 697,500                   | 530,000              | 724,500 [1]    | -                | 1,952,000    |
| Indebtedness satisfied via settlement               | -                         | -                    | -              | -                | -            |
| Exchanges for equity                                | -                         | (235,000 )           | (49,018 )      | -                | (284,018 )   |
| Conversion to equity                                | -                         | (325,000 )           | -              | -                | (325,000 )   |
| Repayments  | (150,000 )                | -                    | (326,500 )     | -                | (476,500 )   |
| Recognition of debt discount                        | -                         | -                    | -              | (604,067)[1]     | (604,067 )   |
| Accretion of interest expense                       | -                         | -                    | -              | 40,052 [1]       | 40,052       |
| Amortization of debt discount                       | -                         | -                    | -              | 542,336          | 542,336      |
| Outstanding, December 31, 2016                      | \$ 697,500                | \$ 390,000 [3]       | \$ 1,249,065   | \$(179,964)      | \$ 2,156,601 |
| Outstanding, December 31, 2015                      | \$ 150,000                | \$ 420,000           | \$ 900,083     | \$(158,285)      | \$ 1,311,798 |
| Less: current portion, December 31, 2015            | (150,000 )                | (110,000 )           | (900,083 )     | 150,286          | (1,009,797)  |
| Non-current portion, December 31, 2015 [4]          | \$-                       | \$ 310,000           | \$-            | \$(7,999 )       | \$ 302,001   |
| Outstanding, December 31, 2016                      | \$ 697,500                | \$ 390,000           | \$ 1,249,065   | \$(179,964)      | \$ 2,156,601 |
| Less: current portion, December 31, 2016            | (430,000 )                | (345,000 )           | (1,236,565)    | 152,720          | (1,858,845)  |



|  |           |          |          |             |           |
|--|-----------|----------|----------|-------------|-----------|
| Non-current portion, December 31, 2016 | \$267,500 | \$45,000 | \$12,500 | \$(27,244 ) | \$297,756 |
| [4]                                    |           |          |          |             |           |

[1] During the years ended December 31, 2016 and 2015, notes with an aggregate principal amount of \$432,000 and \$538,018, respectively, bear no interest and were issued for cash consideration of \$374,000 and \$450,015, respectively. The difference between the principal amount of the notes and the cash received of \$58,000 and \$88,003, respectively, was recorded as debt discount and is being accreted to interest expense over the term of the notes. During the year ended December 31, 2015 the Company issued a note payable in the principal amount of \$75,000 for a short-term advance from a related party in the amount of \$65,000.

[2] During the year ended December 31, 2015, in connection with the extension of certain notes payable, an aggregate of \$44,379 of accrued interest was added to the aggregate principal balance of the notes.

[3] As of December 31, 2016 and 2015, a designated portion of convertible notes with an aggregate principal balance of \$390,000 and \$420,000, respectively, were convertible into shares of common stock at the election of the Company near maturity. In the event the Company exercised or exercises that conversion right on a designated portion of such principal balance, the holder had or has the right to accelerate the conversion of up to \$296,250 and \$197,500, respectively, of principal into shares of common stock.

[4] As of December 31, 2016 and 2015, the Company reclassified principal in the aggregate amount of \$297,756 and \$302,001, respectively (net of debt discount of \$27,244 and \$7,999, respectively) and accrued interest in the aggregate amount of \$7,681 and \$11,011, respectively to notes payable, non-current portion, net of debt discount and accrued interest, non-current portion, respectively, on the consolidated balance sheets related to outstanding notes payable that were converted into or exchanged for shares of common stock and warrants subsequent to December 31, 2016 and 2015, respectively. See Note 11 – Subsequent Events for additional details regarding notes payable.

## **BIORESTORATIVE THERAPIES, INC.**

### Notes to Consolidated Financial Statements

#### **Note 7 – Notes Payable – Continued**

##### Related Party Notes

In May 2015, Cayman and a single entity (the “Bermuda Lender”) agreed to extend the maturity date of a note payable in the original principal amount of \$500,000 (the “\$500,000 Bermuda Lender Note”) (with an outstanding principal balance of \$410,937) from May 7, 2015 to June 30, 2015 (the “New Maturity Date”). The Bermuda Lender waived any and all defaults under the \$500,000 Bermuda Lender Note, including with respect to the failure by the Company to pay to the Bermuda Lender, pursuant to the \$500,000 Bermuda Lender Note, the aggregate amount of \$316,297 received by the Company from its research and development agreements.

In May 2015, the Company and the Bermuda Lender agreed to exchange the \$500,000 Bermuda Lender Note and a note payable to the Bermuda Lender in the principal amount of \$4,000,000 (with an aggregate principal amount of \$4,410,937 and aggregate accrued interest of \$69,436) for 746,730 shares of common stock with a grant date value of \$3,733,645 and an immediately vested five-year warrant to purchase 186,682 shares of common stock at an exercise price of \$15.00 per share with a grant date fair value of \$672,056. In connection with the exchange, the Company extended the expiration date of a previously outstanding warrant to purchase 40,000 shares of common stock from December 31, 2015 to December 31, 2017 and recognized a warrant modification charge of \$80,000, which represents the incremental value of the modified warrant and new warrant combined, as compared to the original warrant value, both valued as of the modification date. During the year ended December 31, 2015, the Company recognized a \$5,327 loss on the extinguishment of notes payable in connection with the exchange for the shares of common stock and a warrant.

In October 2015, the Company borrowed \$150,000 from an affiliate of the Bermuda Lender and issued to the affiliate a two month note in the principal amount of \$150,000. The note provided for interest at a rate of 10% per annum and that, in the event that, prior to the maturity date, the Company received any proceeds from a public equity offering or monies in payment of an accounts receivable, then, the Company would be obligated to prepay the principal and interest on a dollar-for-dollar basis to the extent of such monies so received, but not to exceed the outstanding principal and interest balance of the note. The note was secured by a security interest in a patent held by the Company associated with its brown fat program. In December 2015, the Company and the affiliate of the Bermuda Lender extended the maturity date of the note to March 9, 2016. In connection with the extension, the Company reduced the exercise price of warrants to purchase an aggregate 239,182 shares of common stock held by the Bermuda Lender

from \$15.00 per share to \$4.00 per share. As a result of the warrant modification, the Company recognized \$98,739 of debt discount which will be amortized over the term of the note. In July 2016, the Company repaid the \$150,000 outstanding balance of the note.

As of December 31, 2016 and 2015, the Bermuda Lender was a related party as a result of having in excess of a 10% beneficial ownership interest in the Company's common stock.

On June 30, 2016, the Company borrowed \$500,000 from Tuxis Trust (the "Trust"). A director and principal shareholder of the Company serves as a trustee of the Trust, which was established for the benefit of his immediate family. The promissory note evidencing the loan provides for the payment of the principal amount, together with interest at the rate of 10% per annum, on July 1, 2017. In the event that, prior to maturity, the Company receives net proceeds of \$10,000,000 from a single equity or debt financing (as opposed to a series of related or unrelated financings), the Trust has the right to require that the Company prepay the amount due under the note (subject to the consent of the party that provided the particular financing). In consideration of the loan, the Company issued to the Trust a five-year, immediately vested warrant for the purchase of 40,000 shares of common stock of the Company at an exercise price of \$4.00 per share. The \$55,659 relative fair value of the warrant has been recorded as debt discount and will be amortized over the term of the note.

During the year ended December 31, 2016, the Company issued notes payable with an aggregate principal balance of \$197,500 for aggregate cash consideration of \$190,000 to directors of the Company. The notes mature on dates ranging from January 31, 2017 to February 5, 2017 and range from bearing no interest to 10% interest per annum, payable monthly. The \$7,500 difference between the principal amount of the notes and the cash received was recorded as debt discount and is being amortized to interest expense over the term of notes. In connection with the note issuances, the Company (i) issued one of the directors a five-year, immediately vested warrant to purchase 8,000 shares of common stock at an exercise price of \$4.00 per share and (ii) extended outstanding warrants held by a director to purchase an aggregate of 844,444 shares of common stock with exercise prices ranging from \$4.50 to \$5.00 per share from expiration dates ranging from November 2017 to March 2018 to a new expiration date of December 31, 2018. The \$11,959 relative fair value of the issued warrant and the \$55,028 relative fair value of the warrant modifications have been recorded as debt discount and are being amortized over the term of their respective notes.

## **BIORESTORATIVE THERAPIES, INC.**

### **Notes to Consolidated Financial Statements**

#### **Note 7 – Notes Payable - Continued**

##### Related Party Notes – Continued

See Note 10 – Stockholders’ Deficiency – Warrant and Option Valuation and Note 10 – Stockholders’ Deficiency – Stock Warrants regarding details for the valuation of warrants and the Black-Scholes valuation assumptions.

##### Convertible Notes

###### *Issuances*

During the year ended December 31, 2015, the Company issued convertible notes with an aggregate principal balance of \$735,000 for aggregate cash consideration of \$725,000. The convertible notes matured between July 2015 and June 2016 and accrued interest at rates ranging from 1% to 12% per annum payable at maturity. The \$10,000 difference between the principal amount of the convertible notes and the cash received was recorded as debt discount and was amortized to interest expense over the term of the convertible notes. The convertible notes were convertible into shares of the Company’s common stock at the election of the Company during the five days prior to maturity and ending on the day immediately prior to maturity at a conversion price equal to the greater of (a) a range of 55% to 65% of the fair value of the Company’s common stock or (b) \$2.00 or \$3.00 per share depending on the note. With respect to \$272,500 principal amount of the notes, in the event that the Company elected to convert a portion of the principal outstanding under the notes into common stock, the holder had the right to convert up to the remaining principal into shares of common stock at the conversion price. In connection with the issuance of the convertible notes, the Company issued five-year, immediately vested warrants to purchase an aggregate of 30,885 shares of common stock at exercise prices ranging from \$5.00 to \$10.00 per share. The aggregate relative fair value of the warrants of \$90,018 has been recorded as debt discount and was amortized over the term of the convertible notes. See “Conversions, Exchanges, and Other” below.

During the year ended December 31, 2016, the Company issued convertible notes with an aggregate principal balance of \$530,000 which mature on dates ranging from September 2016 to August 2017 and accrue interest at 10% per annum payable at maturity. The convertible notes are convertible into shares of the Company's stock at the election of the Company during the five days prior to maturity and ending on the day immediately prior to maturity at a conversion price equal to the greater of (a) a range of 60% to 62% of the fair value of the Company's common stock or (b) \$0.75, \$1.00, or \$2.00 per share depending on the note. With respect to \$296,250 principal amount of the notes, in the event that the Company elects to convert a portion of the principal outstanding under the notes into common stock, the holder will have the right to convert up to the remaining principal into shares of common stock at the conversion price. In connection with the issuance of convertible notes, the Company issued five-year, immediately vested warrants to purchase an aggregate of 33,750 shares of common stock at an exercise price of \$4.00 per share. The aggregate relative fair value of the \$53,150 has been recorded as debt discount and is being amortized over the term of the convertible notes.

#### *Conversions, Exchanges and Other*

During the year ended December 31, 2015, the Company elected to convert certain convertible notes with an aggregate principal balance of \$223,333 and aggregate accrued interest of \$15,175 into an aggregate of 53,595 shares of common stock at conversion prices ranging from \$3.00 to \$5.16 per share.

During the year ended December 31, 2015, the Company and certain lenders agreed to exchange certain convertible notes with an aggregate principal balance of \$266,667, along with accrued and unpaid interest of \$12,580, for an aggregate of 92,875 shares of common stock and immediately vested, five-year warrants to purchase an aggregate of 39,092 shares of common stock at an exercise price of \$4.00 per share. The common stock and warrants had an aggregate grant date value of \$288,060 and, as a result, the Company recorded a loss on extinguishment of \$8,813.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 7 – Notes Payable – Continued**

Convertible Notes – Continued

*Conversions, Exchanges and Other - Continued*

During the year ended December 31, 2016, the Company elected to convert certain convertible notes with an aggregate principal balance of \$325,000 and aggregate accrued interest of \$16,751 into an aggregate of 137,006 shares of common stock at conversion prices ranging from \$1.94 to \$3.00 per share.

During the year ended December 31, 2016, the Company and certain lenders agreed to exchange certain convertible notes with an aggregate principal balance of \$235,000, along with accrued and unpaid interest of \$9,788, for an aggregate of 143,102 shares of common stock at prices ranging from \$1.50 to \$2.10 per share. The common stock had an aggregate issuance date value of \$298,762 and, as a result, the Company recorded a loss on extinguishment of \$53,974.

During the years ended December 31, 2016 and 2015, the contingently adjustable conversion ratio associated with certain convertible notes was resolved and such notes became convertible during the period. The Company estimated the intrinsic value of the embedded conversion option based upon the difference between the fair value of the underlying common stock at the commitment date of the note transaction and the effective conversion price embedded in the convertible note. During the years ended December 31 2016 and 2015, the Company recognized \$231,708 and \$87,788, respectively, related to the beneficial conversion feature as debt discount which was immediately amortized.

As of December 31, 2016, the outstanding convertible notes have maturity dates ranging from February 2017 to August 2017 and predominantly bear interest at a rate of 10% per annum payable at maturity.

See Note 10 – Stockholders’ Deficiency – Warrant and Option Valuation and Note 10 – Stockholders’ Deficiency – Stock Warrants regarding details for the valuation of warrants and the Black-Scholes valuation assumptions.

Other Notes

*Issuances*

During the year ended December 31, 2015, the Company issued other notes payable with an aggregate principal amount of \$478,018 for aggregate cash consideration of \$400,015, including the issuance of a note payable in the principal amount of \$75,000 for a short-term advance from a related party in the amount of \$65,000. The notes issued had maturity dates between October 2015 and December 2015, bore no interest and the \$78,003 difference between the aggregate principal amount of the notes and the cash received was recorded as debt discount and was amortized to interest expense over the term of the notes.

During the year ended December 31, 2016, the Company issued other notes payable with an aggregate principal amount of \$724,500 for aggregate cash consideration of \$674,000. The notes issued have maturity dates ranging from September 2016 to April 2017, interest rates ranging from bearing no interest to 10% per annum, payable at maturity, and the \$58,000 difference between the principal amount of the notes and the cash received was recorded as debt discount and is being amortized to interest expense over the term of notes. In connection with the issuance of the notes, the Company issued five-year, immediately vested warrants to purchase an aggregate of 39,000 shares of common stock at an exercise price of \$4.00 per share. The aggregate \$61,767 relative fair value of the warrants has been recorded as debt discount and is being amortized over the term of the notes.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 7 – Notes Payable – Continued**

Other Notes – Continued

*Exchanges and Other*

During the year ended December 31, 2015, the Company and certain lenders agreed to exchange certain other notes with an aggregate principal balance of \$877,873, along with accrued and unpaid interest of \$82,701, for an aggregate of 188,632 shares of common stock and five-year warrants to purchase an aggregate of 111,358 shares of common stock at exercises ranging from \$4.00 to \$15.00 per share. The stock and warrants had an aggregate issuance date value of \$982,112 and, as a result, the Company recorded a loss on extinguishment of \$21,537.

During the year ended December 31, 2015, the Company extended certain other notes payable in the aggregate principal amount of \$735,081 from maturity dates ranging from October 2015 to December 2015 to new maturity dates ranging from December 2015 to October 2016. In connection with the extension of other notes, the Company issued the lenders an aggregate of 10,000 shares of common stock and five-year warrants to purchase an aggregate of 37,500 shares of common stock at an exercise prices of \$4.00 per share. The aggregate grant date fair value of the shares and warrants of \$88,875 has been recorded as debt discount and was amortized over the terms of the notes. Additionally, in connection with a certain other note extension, the Company reduced the exercise price of warrants held by a certain lender to purchase an aggregate of 35,215 shares of common stock from \$10.00 per share to \$4.00 per share. In connection with the warrant modifications, the Company recognized \$10,234 of deferred debt discount which was amortized over the term of the extended note.

During the year ended December 31, 2015, the Company repaid an aggregate principal balance of \$5,000 related to certain other notes.

During the year ended December 31, 2015, the Company and a lender agreed that a certain other note payable held by the lender in the principal amount of \$5,000 was to be extinguished in connection with the terms of a settlement



agreement. See Note 9 – Commitments and Contingencies – Litigation for additional details.

During the year ended December 31, 2016, the Company and certain lenders agreed to exchange certain other notes with an aggregate principal balance of \$49,018 for an aggregate of 23,925 shares of common stock at prices ranging from \$1.25 to \$2.45 per share. The common stock had an aggregate issuance date value of \$53,831 and, as a result, the Company recorded a loss on extinguishment of \$4,813.

During the year ended December 31, 2016, the Company and a lender agreed to multiple extensions of the maturity date of a non-interest bearing note payable in the original principal amount of \$244,000 from February 5, 2016 to July 15, 2016. In connection with the extensions, the Company (i) paid the lender an aggregate of \$111,000 of which \$96,000 was repayment of the principal balance and \$15,000 was a fee related to the extension which is reflected within interest expense in the consolidated statements of operations, (ii) the lender received 6,000 shares of common stock with a fair value of \$13,500 which was recorded as debt discount and amortized over the term of the extension and (iii) the Company and the lender agreed to exchange principal in the amount of \$10,000 into 8,000 shares of common stock (included within the exchanges discussed above). On July 15, 2016, the Company repaid the \$138,000 outstanding principal balance.

During the year ended December 31, 2016, excluding amounts extended as discussed above, the Company extended notes payable with an aggregate principal balance of \$567,063 from maturity dates within October 2015 to new maturity dates ranging from August 2016 to October 2017. In connection with one of the notes extended, the Company issued a five-year, immediately vested warrant to purchase 30,000 shares at an exercise price of \$4.00 per share. The \$52,800 relative fair value of the warrant has been recorded as debt discount and is being amortized over the term of the note. Additionally, outstanding warrants to purchase an aggregate of 60,215 shares of common stock with an exercise price of \$4.00 and expiration dates ranging from June 2017 to December 2020 had their expiration dates extended to October 2021. In connection with the warrant modifications, the Company recognized \$13,120 of deferred debt discount which is being amortized over the term of the extended note.

During the year ended December 31, 2016, excluding amounts repaid as discussed above, the Company repaid an aggregate principal amount of \$92,500 of notes payable.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 7 – Notes Payable – Continued**

Other Notes – Continued

*Exchanges and Other – Continued*

As of December 31, 2016, the outstanding other notes have maturity dates ranging from past due to October 1, 2017 and bear interest at rates ranging from 0% to 15% payable at maturity. The holder of one of the notes is entitled to five years of royalty payments associated with cosmetic revenues, as defined in the note, ranging from 2.0% to 4.0% of cosmetic revenues, depending on the year the cosmetic revenues are earned. Given that the Company has not yet generated any cosmetic revenues, no royalty payments have been earned.

See Note 10 – Stockholders’ Deficiency – Warrant and Option Valuation and Note 10 – Stockholders’ Deficiency – Stock Warrants regarding details for the valuation of warrants and the Black-Scholes valuation assumptions.

**Note 8 – Income Taxes**

United States and foreign components of loss before income taxes were as follows:

|                          | For The Years Ended |                |
|--------------------------|---------------------|----------------|
|                          | December 31,        |                |
|                          | 2016                | 2015           |
| United States            | \$ (8,627,380)      | \$ (7,767,924) |
| Foreign                  | (8,912 )            | (155,556 )     |
| Loss before income taxes | \$ (8,636,292)      | \$ (7,923,480) |

The tax effects of temporary differences that give rise to deferred tax assets and liabilities are presented below:

|  | For The Years Ended |               |
|--|---------------------|---------------|
|  | December 31,        |               |
|  | 2016                | 2015          |
| Deferred Tax Assets:                           |                     |               |
| Net operating loss carryforward                | \$3,495,000         | \$1,181,900   |
| Stock-based compensation                       | 2,868,000           | 1,976,600     |
| Accruals                                       | 237,000             | 231,100       |
| Research & development tax credits             | 192,000             | 139,480       |
| Other  | 2,000               | 2,100         |
| Gross deferred tax assets                      | 6,794,000           | 3,531,180     |
| Deferred Tax Liabilities:                      |                     |               |
| Fixed assets                                   | (97,000 )           | (110,300 )    |
| Intangible assets                              | (18,000 )           | (13,400 )     |
| Gross deferred tax liabilities                 | (115,000 )          | (123,700 )    |
| Net deferred tax assets                        | 6,679,000           | 3,407,480     |
| Valuation allowance                            | (6,679,000)         | (3,407,480)   |
| Deferred tax asset, net of valuation allowance | \$-                 | \$-           |
| Changes in valuation allowance                 | \$3,271,520         | \$(2,922,620) |

**BIORESTORATIVE THERAPIES, INC.****Notes to Consolidated Financial Statements****Note 8 – Income Taxes – Continued**

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

|                                | For The Years Ended<br>December 31, |             |
|--------------------------------|-------------------------------------|-------------|
|                                | 2016                                | 2015        |
| Federal:                       |                                     |             |
| Current                        | \$-                                 | \$-         |
| Deferred                       | (2,927,149)                         | 2,614,976   |
| State and local:               |                                     |             |
| Current                        | -                                   | -           |
| Deferred                       | (344,371 )                          | 307,644     |
|                                | (3,271,520)                         | 2,922,620   |
| Change in valuation allowance  | 3,271,520                           | (2,922,620) |
| Income tax provision (benefit) | \$-                                 | \$-         |

A reconciliation of the statutory federal income tax rate to the Company's effective tax rate is as follows:

|  | For The Years<br>Ended<br>December 31, |         |
|--|--|---------|
|  | 2016                                   | 2015    |
| Tax benefit at federal statutory rate      | (34.0)%                                | (34.0)% |
| State income taxes, net of federal benefit | (4.0 )%                                | (4.0 )% |
| Permanent differences                      | 0.4 %                                  | 0.8 %   |
| Research & development tax credits         | (0.6 )%                                | (0.6 )% |
| Impact of Section 382 limit                | 0.0 %                                  | 76.0 %  |
| True-ups and other                         | 0.3 %                                  | (0.6 )% |
| Change in valuation allowance              | 37.9 %                                 | (37.6)% |
| Effective income tax rate                  | 0.0 %                                  | 0.0 %   |

The Company assesses the likelihood that deferred tax assets will be realized. To the extent that realization is not likely, a valuation allowance is established. Based upon the Company's history of losses since inception, management believes that it is more likely than not that future benefits of deferred tax assets will not be realized.

At December 31, 2016 and 2015, the Company had approximately \$9,200,000 and \$3,100,000, respectively, of federal net operating losses that may be available to offset future taxable income. State net operating losses are not materially different from the federal net operating losses. The net operating loss carry forwards, if not utilized, will expire from 2029 to 2036 for federal purposes. In accordance with Section 382 of the Internal Revenue Code, the usage of the Company's net operating loss carry forwards are subject to annual limitations due to greater than 50% ownership changes. The Section 382 limitations that became effective on or about August 2015 and July 2014 have resulted in (a) approximately \$15,500,000 and \$5,700,000, respectively, of federal NOLs not being realizable; and (b) the reversal of approximately \$5,900,000 and \$2,200,000, respectively, of net operating loss deferred tax assets.

The Company files income tax returns in the U.S. federal jurisdiction and the state of New York (also formerly Florida), which remain subject to examination by the various taxing authorities beginning with the tax year ended December 31, 2013.

**BIORESTORATIVE THERAPIES, INC.**

Notes to Consolidated Financial Statements

Note 9 – **Commitments and Contingencies**

Operating Lease

The Company is a party to a lease for 6,800 square feet of space located in Melville, New York (the “Melville Lease”) with respect to its corporate and laboratory operations. The Melville Lease expires in March 2020 (subject to extension at the option of the Company for a period of five years) and calls for an annual base rental during the initial term ranging between \$132,600 and \$149,260. The aggregate base rent payable over the lease term will be recognized on a straight-line basis. In connection with the operating lease, the Company paid the landlord a security deposit of \$45,900, which is reflected on the consolidated balance sheet as of December 31, 2016 and 2015.

During the year ended December 31, 2016, the Company received a credit of \$20,912 towards its 2016 rent payments in connection with a tax rebate received by the landlord. The Company’s rent expense amounted to \$124,038 and \$141,131 for the years ended December 31, 2016 and 2015, respectively. Rent expense is reflected in general and administrative expenses and research and development expenses in the consolidated statement of operations.

Future minimum payments under this operating lease agreement is as follows:

| For the Years Ending,<br>December 31, | Amount    |
|---------------------------------------|-----------|
| 2017                                  | \$127,948 |
| 2018                                  | 131,778   |
| 2019                                  | 148,172   |
| 2020                                  | 37,315    |
|                                       | \$445,213 |

Litigations, Claims and Assessments

In the normal course of business, the Company may be involved in legal proceedings, claims and assessments arising in the ordinary course of business.

In April 2015, the Company and an alleged former consultant entered into a settlement agreement regarding an action commenced against the Company in the Circuit Court of Palm Beach County, Florida by the plaintiff. In connection with the settlement agreement, during the year ended December 31, 2015, in addition to certain cash payment obligations, the Company issued the plaintiff 4,230 shares of common stock and five-year, immediately vested warrants to purchase an aggregate of 30,000 shares of common stock at exercise prices ranging from \$7.60 to \$12.00 per share in full satisfaction of the claims. The aggregate value of the issuances of \$152,000 was recognized immediately.

The Company records legal costs associated with loss contingencies as incurred and accrues for all probable and estimable settlements.

#### Research Agreements

In June 2015, a research agreement entered into in June 2012 between the Company and the research foundation of a state university expired. During the year ended December 31, 2015, the Company recorded research and development expense of approximately \$103,000 in connection with the research agreement. As of December 31, 2016, the Company had accrued approximately \$112,000, in connection with the research agreement, which is included in accrued expenses and other current liabilities in the consolidated balance sheets.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 9 – Commitments and Contingencies – Continued**

Consulting Agreements

*Business Advisory Services*

In August 2015, a February 2011 agreement for business advisory services that had expired on June 30, 2015 was further amended. Pursuant to the amendment, the agreement was reinstated effective as of July 1, 2015 and provided for an expiration date of June 30, 2016 (the “New Business Advisory Extended Term”). In June 2016, the agreement was further amended and the agreement was reinstated effective as of July 1, 2016 and provided for an expiration date of December 31, 2016 (the “New Business Advisory Extended Term”). In consideration of services rendered during the New Business Advisory Extended Term, the Company agreed to pay a cash fee of \$15,000 per month and the Company granted an immediately vested five-year warrant to purchase 10,000 shares of common stock at an exercise price of \$12.00 per share and an immediately vested five-year warrant to purchase 10,000 shares of common stock at an exercise price of \$10.00 per share. The aggregate grant date value of the warrants of \$74,923 was recognized immediately. During each of the years ended December 31, 2016 and 2015, the Company recorded cash consulting fee expense of \$180,000 related to the business advisory agreement.

See Note 10 – Stockholders’ Deficiency – Warrant and Option Valuation and Note 10 – Stockholders’ Deficiency – Stock Warrants regarding details for the valuation of warrants and the Black-Scholes valuation assumptions.

Employment Agreements

*Chief Executive Officer*



In March 2015, the Company and its Chief Executive Officer (“CEO”) agreed to extend the term of his employment agreement to December 31, 2017. Pursuant to the employment agreement, the CEO is entitled to receive a salary of \$400,000 per annum and, effective January 1, 2015, the CEO’s annual car allowance was reduced to \$7,200 from \$14,400. Pursuant to the employment agreement, the CEO was entitled to receive an annual bonus for 2015 equal to 50% of his annual base salary and is entitled to receive an annual bonus for each of 2016 and 2017 of up to 50% of his annual base salary in the event certain performance goals, as determined by the Compensation Committee of the Board of Directors of the Company (the “Compensation Committee”), are satisfied. In February 2017, the Compensation Committee and the CEO agreed to amend the CEO’s 2016 annual bonus such that (i) the total bonus that could be earned would be equal to 40% of the CEO’s 2016 annual salary and (ii) the CEO would have until July 31, 2017 to satisfy certain performance goals related to his 2016 bonus. Pursuant to the employment agreement, in the event that (a) the CEO’s employment is terminated by the Company without cause, or (b) the CEO terminates his employment for “good reason” (each as defined in the employment agreement), or (c) the term of the CEO’s employment agreement is not extended beyond December 31, 2017 and, within three months of such expiration date, his employment is terminated by the Company without “cause” or the CEO terminates his employment for any reason, the CEO would be entitled to receive severance in an amount equal to his then annual base salary and certain benefits, plus \$100,000 (in lieu of bonus). Further, in the event that the CEO’s employment is terminated by the Company without cause, or the CEO terminates his employment for “good reason”, following a “change in control” (as defined in the employment agreement), the CEO would be entitled to receive severance in an amount equal to one and one-half times his then annual base salary and certain benefits, plus \$300,000 (in lieu of bonus). During each of the years ended December 31, 2016 and 2015, the Company recorded \$407,200 in operating expenses with regard to the CEO’s base salary and car allowance. As of December 31, 2016 and 2015, the accrued and unpaid compensation (salary, bonus, tax liability, car allowance and vacation pay) for the CEO was \$602,221 and \$797,576, respectively, and was included in accrued expenses and other current liabilities in the consolidated balance sheets. As of December 31, 2016, the Company has accrued \$96,000 and \$49,691 for CEO bonus payments which have been achieved or are probable to be achieved over the service period, respectively.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 9 – Commitments and Contingencies – Continued**

Employment Agreements – Continued

*Other*

During the year ended December 31, 2016, the Company's Compensation Committee and Board of Directors approved performance-based cash bonuses for the year ended December 31, 2016 for the Company's officers and certain employees in the aggregate amount of up to \$225,750, excluding amounts earnable by the Company's CEO. In March 2017, the Company's Board of Directors approved amendments of the performance-based cash bonuses for the year ended December 31, 2016 for the Company's officers (other than the CEO, as discussed above) and certain current employees such that (i) an aggregate of up to \$162,000, excluding amounts earnable by the Company's CEO, could be earned pursuant to the satisfaction of certain 2016 performance goals and (ii) the Company's officers and certain employees would have until July 31, 2017 to satisfy certain performance goals related to cash bonuses for the year ended December 31, 2016. As of December 31, 2016, excluding amounts due to the Company's CEO as discussed above, the Company has accrued \$95,041 and \$50,531 for bonus payments which have been achieved or are probable to be achieved over the service period, respectively.

In February 2015, the Company hired a President for its Disc/Spine Division ("Division President") pursuant to an at-will employment agreement which entitles him to a specified salary and bonus. In the event the Company terminates the Division President's employment without cause, the Division President is entitled to cash severance payments equal to one-half of his then annual base salary (such one-half amount is currently \$150,000) paid over nine months. As additional compensation, the Company granted the Division President a ten-year option to purchase 25,000 shares of common stock at an exercise price of \$9.20 per share, pursuant to the Plan. The options vests over three years on the grant date anniversaries. The grant date value of \$200,400 is being recognized proportionate to the vesting period.

In March 2015, the Company agreed to amend the at-will employment agreement with its Vice President of Research and Development ("VP of R&D"). Pursuant to the employment agreement, as amended, in the event that the VP of R&D's employment with the Company is terminated without cause, the VP of R&D would be entitled to receive a cash

severance payment equal to one-half of his base annual salary (such one-half amount is currently \$125,000).

As of December 31, 2016, two other employees have “at-will” employment agreements with the Company that provide for aggregate cash severance payments of \$175,000, payable over twelve months, upon involuntary termination.

#### Board of Directors

As of December 31, 2016, and 2015, \$357,500 and \$200,000, respectively, of director cash compensation was outstanding and included in accrued expenses and other current liabilities in the consolidated balance sheets.

#### Related Party Agreement

In March 2015, a 2014 agreement, as amended, between the Company and an affiliate of one of its then directors for consulting services related to the Company’s brtxDISC Program and ThermoStem Program expired. Pursuant to the agreement, the Company issued 1,725 shares of common stock to one of its then directors. The common stock had a grant date fair value of \$15,000 which was recognized immediately and is reflected within consulting expenses within the Company’s consolidated statement of operations.

#### Note 10 – Stockholders’ Deficiency

#### Authorized Capital

In December 2014, the Company’s stockholders approved the reincorporation of the Company from the State of Nevada to the State of Delaware effective January 1, 2015 and in connection therewith (i) approved an amendment to the Company’s Articles of Incorporation to increase the number of shares of common stock authorized to be issued by the Company from 100,000,000 to 200,000,000; and (ii) approved an amendment to the Company’s Articles of Incorporation to increase the number of shares of preferred stock authorized to be issued by the Company from 1,000,000 to 5,000,000.

Effective July 7, 2015, pursuant to authority granted by the stockholders of the Company, the Company implemented a 1-for-20 reverse split of the Company’s issued and outstanding common stock and a reduction in the number of shares of common stock authorized to be issued by the Company from 200,000,000 to 30,000,000.

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## **BIORESTORATIVE THERAPIES, INC.**

### **Notes to Consolidated Financial Statements**

#### **Note 10 – Stockholders’ Deficiency – Continued**

##### Authorized Capital – Continued

As of December 31, 2016, the Company was authorized to issue 30,000,000 shares of common stock, \$0.001 par value, and 5,000,000 shares of preferred stock, \$0.01 par value. The holders of the Company’s common stock are entitled to one vote per share. Subject to the rights of holders of preferred stock, if any, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of legally available funds. Subject to the rights of holders of preferred stock, if any, upon liquidation, dissolution or winding up of the Company, holders of common stock are entitled to share ratably in all assets of the Company that are legally available for distribution.

##### 2010 Equity Participation Plan

In September 2015, the Compensation Committee increased the number of shares authorized to be issued pursuant to the Plan from 1,000,000 to 2,000,000, subject to stockholder approval. In November 2015, the Compensation Committee further increased the number of shares authorized to be issued pursuant to the Plan to 2,250,000, subject to stockholder approval. In December 2015, the Company’s stockholders approved an increase in the number of shares of common stock authorized to be issued pursuant to the Plan to 2,250,000.

In August 2016 and October 2016, the Compensation Committee and the Company’s stockholders, respectively, approved an increase in the number of shares authorized to be issued pursuant to the Company’s 2010 Equity Participation Plan from 2,250,000 to 4,250,000.

##### Common Stock and Warrant Offerings

During the year ended December 31, 2015, the Company issued an aggregate of 395,425 shares of common stock at prices ranging from \$4.00 to \$7.00 per share to investors for aggregate gross proceeds of \$2,033,700 (of such aggregate issuances, 50,000 shares of common stock were issued to the Bermuda Lender for an aggregate gross proceeds of \$300,000). In connection with the purchases, the Company issued five-year warrants to purchase an aggregate of 259,464 shares of common stock at exercise prices ranging from \$5.00 to \$15.00 per share of common stock (of such aggregate warrant issuances, the Bermuda Lender was issued a five-year warrant to purchase 12,500 shares of common stock at an exercise price of \$15.00 per share with a grant date value of \$40,000). The warrants had an aggregate grant date value of \$611,730. In connection with the purchase of 125,000 shares of common stock (the “Shares”) and a warrant to purchase 125,000 shares of common stock at an exercise price of \$5.00 per share (the “Warrant”) for gross proceeds of \$500,000, the Company agreed to cause the appointment and election of the investor to its Board of Directors. In December 2015, the investor was elected as a director of the Company.

During the year ended December 31, 2016, the Company issued an aggregate of 956,883 shares of common stock and warrants to purchase an aggregate of 1,801,177 shares of common stock at exercise prices ranging from \$4.00 to \$5.00 per share to investors for aggregate gross proceeds of \$3,498,338. Of the aggregate warrants issued, warrants to purchase 444,444, 400,000 and 956,733 shares of common stock had terms of 0.7, 1.0 and 5.0 years, respectively. The warrants had an aggregate grant date fair value of \$2,054,144.

#### Warrant and Option Valuation

The Company has computed the fair value of warrants and options granted using the Black-Scholes option pricing model. Option forfeitures are estimated at the time of valuation and reduce expense ratably over the vesting period. This estimate will be adjusted periodically based on the extent to which actual option forfeitures differ, or are expected to differ, from the previous estimate, when it is material. The Company estimated forfeitures related to option grants at an annual rate ranging from 0% to 5% for options granted during the years ended December 31, 2016 and 2015. The expected term used for warrants and options issued to non-employees is the contractual life and the expected term used for options issued to employees and directors is the estimated period of time that options granted are expected to be outstanding. The Company utilizes the “simplified” method to develop an estimate of the expected term of “plain vanilla” employee option grants. The Company is utilizing an expected volatility figure based on a review of the historical volatilities, over a period of time, equivalent to the expected life of the instrument being valued, of similarly positioned public companies within its industry. The risk-free interest rate was determined from the implied yields from U.S. Treasury zero-coupon bonds with a remaining term consistent with the expected term of the instrument being valued.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 10 – Stockholders’ Deficiency – Continued**

Warrant Exercises

During the year ended December 31, 2015, warrants to purchase an aggregate of 75,473 shares of common stock were exercised at a reduced exercise price of \$3.50 per share (reduced from exercises prices ranging from \$4.00 to \$15.00 per share) for aggregate gross proceeds of \$264,144. The Company recognized a warrant modification charge of \$20,295 during the year ended December 31, 2015 which represents the incremental value of the modified warrant as compared to the original warrant, both valued as of the respective modification dates.

During the year ended December 31, 2016, warrants to purchase an aggregate of 60,831 shares of common stock were exercised at a reduced exercise price of \$3.50 per share (reduced from exercises prices ranging from \$4.00 to \$15.00 per share) for aggregate gross proceeds of \$212,898. The Company recognized a warrant modification charge of \$23,448 during the year ended December 31, 2016, which represents the incremental value of the modified warrants as compared to the original warrants, both valued as of the respective modification dates.

Stock Warrants

In applying the Black-Scholes option pricing model to warrants granted, the Company used the following assumptions:

|                         | For the Years Ended |                |
|-------------------------|---------------------|----------------|
|                         | December 31,        |                |
|                         | 2016                | 2015           |
| Risk free interest rate | 0.44% - 2.07 %      | 1.29% - 1.75 % |
| Expected term (years)   | 0.67 - 5.00         | 5.00           |
| Expected volatility     | 124% - 152 %        | 120% - 122 %   |
| Expected dividends      | 0.00 %              | 0.00 %         |

The weighted average estimated fair value of the warrants granted during the years ended December 31, 2016 and 2015 was approximately \$1.18 and \$2.72 per share, respectively.

See Note 7 – Notes Payable for details associated with the issuance of warrants in connection with note issuances and the exchange of notes payable. See Note 9 – Commitments and Contingencies – Consulting Agreements for details associated with the issuance of warrants as compensation. See Note 10 – Stockholders’ Deficiency – Common Stock and Warrant Offerings for details associated with the issuance of warrants in connection with common stock and warrant offerings.

During the year ended December 31, 2015, the Company extended the expiration date of previously outstanding warrants to purchase an aggregate of 47,939 shares of common stock from expiration dates ranging from December 31, 2015 to January 23, 2016 to new expiration dates ranging from December 31, 2016 to December 31, 2017 and reduced the exercise price of previously outstanding warrants to purchase an aggregate of 470,085 shares of common stock from exercise prices ranging from \$6.00 to \$20.00 per share to new exercise prices ranging from \$4.00 to \$10.00 per share. During year ended December 31, 2015, the Company recognized \$77,905 of incremental expense related to the modification of the warrants which is reflected in warrant modification expense in the consolidated statements of operations.

During the year ended December 31, 2016, the Company issued an immediately vested five-year warrant to purchase 40,000 shares of common stock at an exercise price of \$4.00 per share to a consultant for services rendered. The issuance date fair value of \$62,908 was immediately recognized as stock-based compensation expense which is reflected in consulting expense in the consolidated statements of operations.



**BIORESTORATIVE THERAPIES, INC.****Notes to Consolidated Financial Statements****Note 10 – Stockholders’ Deficiency – Continued**Stock Warrants – Continued

During the year ended December 31, 2016, the Company reduced the exercise price of previously outstanding warrants to purchase an aggregate of 44,166 shares of common stock from exercise prices ranging from \$6.00 to \$15.00 per share to a new exercise price of \$4.00 per share and recognized \$5,038 of incremental expense related to the modification of the warrants which is reflected in warrant modification expense in the consolidated statements of operations.

The Company recorded stock-based compensation expense of \$62,908 and \$99,501 during the years ended December 31, 2016 and 2015, respectively, related to stock warrants issued as compensation, which is reflected as consulting expense in the consolidated statements of operations. As of December 31, 2016, there was no unrecognized stock-based compensation expense related to stock warrants.

A summary of the warrant activity during the year ended December 31, 2016 is presented below:

|                                | Number of<br>Warrants | Weighted<br>Average<br>Exercise<br>Price | Weighted<br>Average<br>Remaining<br>Life<br>In Years | Aggregate<br>Intrinsic<br>Value |
|--------------------------------|-----------------------|--|--|---------------------------------|
| Outstanding, December 31, 2015 | 1,066,930             | \$ 7.56                                  | [1]  |                                 |
| Issued                         | 1,991,927             | 4.64                                     |  |                                 |
| Exercised                      | (60,831 )             | 3.50                                     | [2]  |                                 |
| Forfeited                      | (44,375 )             | 4.00                                     |  |                                 |
| Outstanding, December 31, 2016 | 2,953,651             | \$ 5.40                                  | [1] 3.3  | \$ -                            |
| Exercisable, December 31, 2016 | 2,918,651             | \$ 5.40                                  | 3.4  | \$ -                            |

[1] Excludes the impact of a warrant to purchase 35,000 shares of common stock that has an exercise price which is the greater of \$30.00 per share or the fair market value of the common stock on the date certain performance criteria are met. Exercisability is subject to satisfaction of certain performance criteria which did not occur during the year ended December 31, 2016.

[2] During the year ended December 31, 2016, warrants to purchase an aggregate of 60,831 shares of common stock were exercised at a reduced exercise price of \$3.50 per share (reduced from exercise prices ranging from \$4.00 to \$15.00 per share) for aggregate gross proceeds of \$212,898. The Company recognized a warrant modification charge of \$23,448 during the year ended December 31, 2016, which represents the incremental value of the modified warrants as compared to the original warrants, both valued as of the respective modification dates. See Note 10 – Stockholders’ Deficiency – Warrant Exercises for additional details.

**BIORESTORATIVE THERAPIES, INC.****Notes to Consolidated Financial Statements****Note 10 – Stockholders’ Deficiency – Continued**Stock Warrants - Continued

The following table presents information related to stock warrants at December 31, 2016:

| Exercise Price    | Warrants Outstanding<br>Number of<br>Warrants | Warrants<br>Exercisable<br>Weighted<br>Average<br>Remaining<br>Life In<br>Years |           |
|-------------------|---|---|-----------|
|                   |   | Warrants  | Warrants  |
| \$4.00 - \$4.99   | 1,554,245                                     | 3.4   | 1,554,245 |
| \$5.00 - \$5.99   | 1,169,243                                     | 3.4   | 1,169,243 |
| \$6.00 - \$7.99   | 40,000  | 3.6   | 40,000    |
| \$8.00 - \$9.99   | 2,500   | 2.9   | 2,500     |
| \$10.00 - \$14.99 | 55,446  | 3.3   | 55,446    |
| \$15.00 - \$19.99 | 38,559  | 2.9   | 38,559    |
| \$20.00 - \$80.00 | 58,658  | 0.7   | 58,658    |
| Variable          | [1] 35,000                                    | -   | -         |
|                   | 2,953,651                                     | 3.4   | 2,918,651 |

A warrant to purchase 35,000 shares of common stock has an exercise price which is the greater of \$30.00 per share or the fair market value of the common stock on the date certain performance criteria are met. Exercisability [1] is subject to satisfaction of certain performance criteria which did not occur during the year ended December 31, 2016.

Stock Options

In applying the Black-Scholes option pricing model to stock options granted, the Company used the following assumptions:

|                         | For the Year Ended |                |
|-------------------------|--------------------|----------------|
|                         | December 31,       |                |
|                         | 2016               | 2015           |
| Risk free interest rate | 1.16% - 1.53 %     | 1.33% - 2.24 % |
| Expected term (years)   | 5.50 - 10.00       | 5.00 - 10.00   |
| Expected volatility     | 124% - 126 %       | 120% - 123 %   |
| Expected dividends      | 0.00 %             | 0.00 %         |

The weighted average estimated fair value of the stock options granted during the years ended December 31, 2016 and 2015 was approximately \$3.24 and \$4.07 per share, respectively.

See Note 9 – Commitments and Contingencies for details associated with certain grants of options as compensation to employees, directors and consultants.

In September 2015, the Compensation Committee determined that, with respect to all outstanding options granted under the Plan, to the extent not already provided for in the stock option agreement evidencing the option grant, the optionee be given the right to exercise the option on a cashless basis as contemplated by Section 13(b) of the Plan and, other than in the case of the Company's CEO, in the event of a termination of employment, directorship, consultancy or membership on the Company's Scientific Advisory Board, to the extent that the options are then exercisable, they shall remain exercisable until twelve months following such termination (unless the stock option agreement evidencing the option grant provides that such options are exercisable until the expiration date of the options), but in no event shall the options be exercisable after the respective expiration dates of the options.

**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 10 – Stockholders’ Deficiency – Continued**

Stock Options – Continued

In February 2016, the Company granted a ten-year option to a director to purchase 15,000 shares of the Company’s common stock at an exercise price of \$3.70. The shares vest ratably over three years on the issuance date anniversaries. The options had an aggregate grant date value of \$52,900.

In June 2016, the Company issued ten-year options to employees, directors and advisors to purchase an aggregate of 827,000 shares of common stock at an exercise price of \$3.73 per share, pursuant to the Plan. The shares vest as follows: (i) 192,333 shares vest immediately, (ii) 384,667 shares vest ratably over two years on the issuance date anniversaries and (iii) 250,000 shares vest ratably over three years on the issuance date anniversaries. The options had an aggregate grant date value of \$2,682,800.

In August 2016, the Company granted a ten-year option to the Chairman of the Company’s Scientific Advisory Board, to purchase 15,000 shares of the Company’s common stock at an exercise price of \$3.10. The shares vest ratably over two years on the issuance date anniversaries. The option had a grant date fair value of \$41,000 and will be amortized over the vesting period of the option.

The following table presents information related to stock option expense:

| For the Year Ended | Unrecognized<br>at | Weighted<br>Average<br>Remaining<br>Amortization<br>Period |
|--------------------|--------------------|--|
| December 31,       | December<br>31,    |  |

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|                            | 2016        | 2015        | 2016        | (Years) |
|----------------------------|-------------|-------------|-------------|---------|
| Consulting                 | \$880,288   | \$595,446   | \$902,142   | 1.4     |
| Research and development   | 492,061     | 376,596     | 902,056     | 2.0     |
| General and administrative | 1,001,445   | 705,546     | 1,068,001   | 1.5     |
|                            | \$2,373,794 | \$1,677,588 | \$2,872,199 | 1.6     |

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**BIORESTORATIVE THERAPIES, INC.**

**Notes to Consolidated Financial Statements**

**Note 10 – Stockholders’ Deficiency – Continued**

Stock Options – Continued

A summary of the option activity during the year ended December 31, 2016 is presented below:

|                                | Number of<br>Options | Weighted<br>Average<br>Exercise<br>Price | Weighted<br>Average<br>Remaining<br>Life<br>In Years | Aggregate<br>Intrinsic<br>Value |
|--------------------------------|----------------------|--|--|---------------------------------|
| Outstanding, December 31, 2015 | 1,330,450            | \$10.11                                  |  |                                 |
| Granted                        | 857,000              | 3.72                                     |  |                                 |
| Forfeited                      | (18,500 )            | 16.41                                    |  |                                 |
| Outstanding, December 31, 2016 | 2,168,950            | \$7.53                                   | 8.2  | \$3,000                         |
| Exercisable, December 31, 2016 | 1,137,620            | \$9.78                                   | 7.6  | \$-                             |

The following table presents information related to stock options at December 31, 2016:

| Options Outstanding | Options<br>Exercisable              | Options<br>Exercisable                                  |
|---------------------|-------------------------------------|---|
| Exercise<br>Price   | Outstanding<br>Number of<br>Options | Weighted<br>Average<br>Remaining<br>Life<br>In<br>Years |
| \$3.10 - \$3.99     | 857,000                             | 9.4   |
| \$4.00 - \$4.99     | 15,000                              | 8.9   |

|                   |           |     |           |
|-------------------|-----------|-----|-----------|
| \$5.00 - \$5.99   | 35,000    | 7.5 | 35,000    |
| \$6.00 - \$6.99   | 318,750   | 7.3 | 213,749   |
| \$7.00 - \$7.99   | 507,000   | 8.6 | 305,501   |
| \$8.00 - \$8.99   | 32,250    | 8.5 | 10,750    |
| \$9.00 - \$9.99   | 30,000    | 6.2 | 13,334    |
| \$10.00 - \$19.99 | 198,000   | 6.5 | 193,000   |
| \$20.00 - \$30.00 | 175,950   | 5.1 | 168,950   |
|                   | 2,168,950 | 7.6 | 1,137,620 |

Compensatory Common Stock Issuances

See Note 9 – Commitments and Contingencies for details associated with certain issuances of common stock as compensation to employees, directors and consultants.

During the year ended December 31, 2015, the Company issued an aggregate of 31,473 shares of immediately vested common stock valued at \$112,847 to consultants pursuant to consulting agreements for services rendered during the period.

During the year ended December 31, 2015, the Company issued 943 shares of common stock valued at \$8,481 in satisfaction of previously accrued professional service fees.

During the year ended December 31, 2016, the Company issued an aggregate of 54,901 shares of immediately vested common stock valued at \$116,958 to consultants pursuant to consulting agreements for services rendered during the period.



**BIORESTORATIVE THERAPIES, INC.****Notes to Consolidated Financial Statements****Note 10 – Stockholders’ Deficiency – Continued**Compensatory Common Stock Issuances - Continued

During the year ended December 31, 2016, the Company issued an aggregate of 13,208 shares of common stock valued at \$27,553 in satisfaction of previously accrued consulting services.

The following table presents information related to compensatory common stock expense:

|                          | For The Nine<br>Months Ended<br>December 31, |            | Unrecognized<br>at<br>December<br>31, |
|--------------------------|--|------------|---------------------------------------|
|                          | 2016   | 2015       | 2016                                  |
| Consulting               | \$ 100,083                                   | \$ 168,800 | \$ -                                  |
| Research and development | -  | 8,847      | -                                     |
|                          | \$ 100,083                                   | \$ 177,647 | \$ -                                  |

Return of Shares to Treasury

In June 2016, the Company and a consultant agreed that, due to the amount and nature of the services performed, the consultant would return 7,500 shares of common stock to the Company with a fair value of \$16,875. Accordingly, the Company recorded the treasury shares at cost with a stock-based compensation credit which is reflected within consulting expense in the consolidated statements of operations.

### Retirement of Treasury Shares

In August 2016, the Company's Board of Directors made a determination to retire 35,432 shares of treasury stock.

### Note 11 - Subsequent Events

#### Consulting Agreements

On March 9, 2017, in consideration of the extension of the term of a consulting agreement, the Company issued to the consultant an immediately vested five-year warrant for the purchase of 25,000 shares of common stock of the Company at an exercise price of \$4.00 per share. Concurrently, the Company entered into an exchange agreement with the consultant pursuant to which \$30,000 of accrued consulting fees were exchanged for 10,000 shares of common stock of the Company and, in consideration thereof, the Company issued to the consultant an immediately vested five-year warrant for the purchase of 10,000 shares of common stock of the Company at an exercise price of \$4.00 per share.

Effective March 1, 2017, the Company entered into an exchange agreement with the Chairman of the Company's Scientific Advisory Board, pursuant to which an aggregate of \$175,000 of accrued consulting fees were exchanged for 58,334 shares of common stock of the Company and, in consideration thereof, the Company issued to such person an immediately vested five-year warrant for the purchase of 58,334 shares of common stock of the Company at an exercise price of \$4.00 per share.

#### Director Fees

Effective March 1, 2017, the Company entered into exchange agreements with four non-employee directors of the Company, pursuant to which an aggregate of \$265,000 of accrued director fees were exchanged for an aggregate of 88,334 shares of common stock of the Company and, in consideration thereof, the Company issued to the directors immediately vested five-year warrants for the purchase of an aggregate of 88,334 shares of common stock of the Company at an exercise price of \$4.00 per share.

#### Employment Agreements

In February 2017 and March 2017, the Company's Compensation Committee and Board of Directors, respectively, approved performance milestones for the performance-based cash bonuses payable for the year ending December 31, 2017 for certain of the Company's officers and certain current employees such that an aggregate of up to \$402,500 could be earned for such year pursuant to the satisfaction of such goals.

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## **BIORESTORATIVE THERAPIES, INC.**

### **Notes to Consolidated Financial Statements**

#### **Note 11 - Subsequent Events - Continued**

##### Common Stock and Warrant Offerings

Subsequent to December 31, 2016, the Company issued an aggregate of 256,668 shares of common stock and five-year immediately vested warrants to purchase an aggregate of 266,668 shares of common stock at an exercise price of \$4.00 to investors for aggregate gross proceeds of \$770,000.

##### Stock Warrants

Subsequent to December 31, 2016, with respect to a warrant held by an investor, the Company agreed that (i) the conditions to the exercisability of the warrant for tranches to purchase an aggregate of 35,000 shares were eliminated, such that the entire warrant to purchase 50,000 shares of common stock was exercisable, and (ii) the exercise price of the warrant was reduced from an exercise price of \$30.00 per share to \$3.50 per share. Concurrent with the modification of the warrant, the investor exercised the warrant in full for aggregate gross proceeds to the Company of \$175,000.

##### Stock Options

On February 14, 2017, the Compensation Committee reduced the exercise price of outstanding options for the purchase of an aggregate of 1,219,450 shares of common stock of the Company (with exercise prices ranging between \$5.70 and \$30.00 per share) to \$4.70 per share, which was the closing price for the Company's common stock on February 13, 2017, as reported by the OTCQB. The exercise price reduction related to options held by, among others, the Company's executive officers and directors.

##### Short-Term Advances

Subsequent to December 31, 2016, the Company received non-interest bearing advances in the amount of \$30,015 from an officer of the Company and repaid an aggregate of \$45,015 of non-interest bearing advances from a director of the Company and an officer of the Company.

#### Notes Payable

On January 3, 2017, the Company issued a lender a six-month note payable in the principal amount of \$242,000, which bears no interest, for cash proceeds of \$200,000. The \$42,000 difference was recorded as a debt discount and will be amortized over the term of the note. In connection with the issuance of this promissory note, the Company issued the lender an immediately vested five-year warrant to purchase 20,000 shares of common stock an exercise price of \$4.00 per share.

Subsequent to December 31, 2016, the Company and certain lenders agreed to exchange certain notes payable with an aggregate principal balance of \$280,000 and aggregate accrued interest of \$7,402 into an aggregate of 95,802 shares of common stock and immediately vested five-year warrants to purchase an aggregate of 95,802 shares of common stock at an exercise price of \$4.00 per share. In addition, in consideration of the exchange by one lender, the Company agreed to extend the expiration dates of certain warrants held by the lender for the purchase of an aggregate of 18,000 shares of common stock of the Company at an exercise price of \$4.00 per share, from expiration dates ranging from April 27, 2021 to January 31, 2022 to a new expiration date of February 8, 2022.

Subsequent to December 31, 2016, the Company elected to convert certain convertible notes with an aggregate principal balance of \$45,000 and aggregate accrued interest of \$2,277 into an aggregate of 17,854 shares of common stock at conversion prices ranging from \$2.51 to \$2.77 per share.

Subsequent to December 31, 2016, the Company and certain lenders agreed to extend notes payable with an aggregate principal balance of \$322,000 from maturity dates ranging between January 2017 to February 2017 to new maturity dates ranging from March 2017 to April 2017. In connection with one of the extensions, the Company issued the lender a five-year, immediately vested warrant to purchase 3,000 shares of common stock at an exercise price of \$4.00 per share.

Subsequent to December 31, 2016, the Company repaid an aggregate principal amount of \$74,000 of notes payable.

