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

FORM 10-K

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

For the fiscal year ended December 31, 2013

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

For the transition period from _____ to _____

Commission file number 000-09410

PROVCTUS BIOPHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

90-0031917
(I.R.S. Employer
Identification No.)

7327 Oak Ridge Highway, Suite A, Knoxville, Tennessee 37931
(Address of principal executive offices) (Zip Code)

866-594-5999
(Registrant's telephone number, including area code)

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

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

Common Stock, par value \$.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

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

Indicate by check mark whether the 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 ☐ 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 (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☒ Yes ☐ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒ x

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

Large accelerated filer ☐	Accelerated filer ☒ x
Non-accelerated filer ☐ (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 Act). ☐ Yes ☒ x No

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold as of June 28, 2013 was \$77,150,241 (computed on the basis of \$0.65 per share).

The number of shares outstanding of the registrant's common stock, par value \$.001 per share, as of March 7, 2014 was 172,450,253.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III is incorporated by reference to portions of the definitive proxy statement to be filed within 120 days after December 31, 2013, pursuant to Regulation 14A under the Securities Exchange Act of 1934 in connection with the annual meeting of stockholders to be held on June 16, 2014.

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CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements regarding, among other things, our anticipated financial and operating results. Forward-looking statements reflect our management's current assumptions, beliefs, and expectations. Words such as "anticipate," "believe," "estimate," "expect," "intend," "plan," and similar expressions are intended to identify forward-looking statements. While we believe that the expectations reflected in our forward-looking statements are reasonable, we can give no assurance that such expectations will prove correct. Forward-looking statements are subject to risks and uncertainties that could cause our actual results to differ materially from the future results, performance, or achievements expressed in or implied by any forward-looking statement we make. Some of the relevant risks and uncertainties that could cause our actual performance to differ materially from the forward-looking statements contained in this report are discussed below under the heading "Risk Factors" and elsewhere in this Annual Report on Form 10-K. We caution investors that these discussions of important risks and uncertainties are not exclusive, and our business may be subject to other risks and uncertainties which are not detailed there. Investors are cautioned not to place undue reliance on our forward-looking statements. We make forward-looking statements as of the date on which this Annual Report on Form 10-K is filed with the SEC, and we assume no obligation to update the forward-looking statements after the date hereof whether as a result of new information or events, changed circumstances, or otherwise, except as required by law.

PART I**ITEM 1. BUSINESS.****General**

Provectus Biopharmaceuticals, Inc., a Delaware corporation formed in 2002, together with its six wholly owned subsidiaries and one majority owned subsidiary managed on a consolidated basis, referred to herein as “we,” “us,” and “our,” is a development-stage biopharmaceutical company that is primarily engaged in developing ethical pharmaceuticals for oncology and dermatology indications. Our goal is to develop alternative treatments that are safer, more effective, less invasive and more economical than conventional therapies. We develop and intend to license or market and sell our two prescription drug candidates, PV-10 and PH-10. We also hold patents and other intellectual property which we believe may be used in over-the-counter products, which we refer to as OTC products, and various other non-core technologies. We have transferred all our intellectual property related to OTC products and non-core technologies to our subsidiaries and have designated such subsidiaries as non-core to our primary business of developing our oncology and dermatology prescription drug candidates.

Prescription Drugs

We focus on developing our prescription drug candidates PV-10 and PH-10. We are developing PV-10 for treatment of several life threatening cancers including metastatic melanoma, liver cancer, and breast cancer. We are developing PH-10 to provide minimally invasive treatment of chronic severe skin afflictions such as psoriasis and atopic dermatitis, a type of eczema. We believe that our prescription drug candidates will be safer and more specific than currently existing products. All of our prescription drug candidates are in either the pre-clinical or clinical trial stage.

The table below sets forth our two drug candidates and our progress in developing those candidates for these indications:

PV-10 Melanoma	• Prepare for Breakthrough Therapy Designation request 2013 into 2014 • Finalized Phase 2 data October 2012 and September 2013 • End-of-Phase 2 FDA meeting April 2010, March 2011, and October 2011 • Phase 2 study completed May 2010 • Phase 2 treatments completed September 2009 • Phase 2 recruitment completed May 2009 • Phase 2 study initiated September 2007 • Orphan drug status January 2007
PH-10 Psoriasis	• Toxicity study research and development for advanced studies 2012, 2013 and into 2014 • Phase 2c randomized study final data collection February 2012 • Phase 2c randomized study initiated December 2010 and completed August 2011 • Phase 2 study completed April 2010 • Phase 2 recruitment completed October 2009 • Replacement Phase 2 initiated July 2009 due to dose regimen change • Phase 2 study initiated November 2007
PH-10 Atopic Dermatitis	• Toxicity study research and development for advanced studies 2012, 2013 and into 2014 • Phase 2 study completed September 2009 • Phase 2 recruitment completed June 2009 • Phase 2 study initiated June 2008
PV-10 Breast Cancer	• Assessing further development 2013 and 2014 in conjunction with Moffitt Cancer Center research • Phase 1 study completed July 2008 • Phase 1 initial cohort treatment completed April 2006 • Phase 1 study initiated October 2005
PV-10 Liver Metastasis	• Phase 1 protocol expansion September 2012 through 2013 into 2014 • Orphan drug status April 2011 • Phase 1 patient accrual and treatment completed January 2011 • Phase 1 study initiated October 2009

PV-10	— Moffitt Cancer Center initiates Phase 1 feasibility study to detect immune cell infiltration into
Mechanism of Action	melanomas treated by PV-10 in January 2013 into 2014

In addition to clinical trials, patients enrolled in the compassionate use or expanded access program for PV-10 are also receiving PV-10 treatments.

Oncology (PV-10)

We believe our prescription drug candidate PV-10 may afford competitive advantage compared to currently available options for the treatment of certain types of cancer. We are developing PV-10, a sterile injectable form of rose bengal disodium (Rose Bengal), for direct injection into tumors. It is an immuno-chemoablative agent that when injected intralesionally is tantamount to an “in situ” vaccination following acute and durable necrosis of diseased tissue. Because PV-10 is retained in diseased or damaged tissue but quickly dissipates from healthy tissue, we believe we can develop therapies that confine treatment to cancerous tissue and reduce collateral impact on healthy tissue. We have conducted Phase 1 and Phase 2 studies of PV-10 for the treatment of recurrent and metastatic melanoma, and Phase 1 studies of PV-10 for the treatment of liver and breast cancers, each of which are described in more detail below.

Recurrent Melanoma

A Type C meeting was held with the FDA’s Division of Oncology Products 2 on December 16, 2013. The purpose of the meeting was to determine which of the available paths that our novel investigational oncology drug PV-10 will take in pursuit of initial FDA approval and commercialization. PV-10, a 10% solution of rose bengal disodium, is designed to selectively target and destroy cancer cells without harming surrounding healthy tissue, while inducing a secondary tumor-specific immune response. As a result of this meeting, we will submit data from its Phase 2 study in a formal breakthrough therapy designation (BTD) request, and should receive a decision within 60 days of receipt of that request.

With the passage of the Food and Drug Administration Safety and Innovation Act (FDASIA) in July 2012, the Food and Drug Administration (FDA) was given powerful expedited tools to speed patient access to innovative medicines for serious or life-threatening conditions. FDASIA initiatives such as breakthrough therapy designation are designed to accelerate approval for new drugs that show preliminary clinical evidence of a large treatment effect. A key feature of BTD authorizes the FDA to take steps to ensure that the design of the clinical trials are as efficient as practicable, when scientifically appropriate, such as by minimizing the number of patients exposed to a potentially less efficacious treatment. Requests for BTD are reviewed and granted or rejected within 60 days of receipt. As we have previously reported, based on rapid tumor destruction in a positive Phase 2 trial in melanoma patients receiving PV-10 (protocol PV-10-MM-02), we sought input from the FDA regarding our current development plan. FDA guidance encourages sponsors to seek such advice prior to formal request for designation.

We believe that this meeting with the FDA is another significant step forward in streamlining the pathway to initial U.S. approval of PV-10 as the first local agent for recurrent locoregionally advanced melanoma. These patients suffer with troublesome, disfiguring disease that can persist for many years before presenting at distant sites. Our meeting with the FDA established the parameters for submission of a BTD request tailored to addressing the pressing needs of these patients.

The meeting and official meeting minutes provided valuable guidance on a number of issues surrounding the approval path of PV-10:

- The FDA agreed with us that treatment of cutaneous and subcutaneous tumors in patients with locally advanced cutaneous melanoma (i.e., recurrent, in-transit or satellite melanoma that has not yet spread from the skin to distant sites) could provide clinical benefit to such patients, particularly if the measured objective responses in patients’ disease correlated to a demonstrated treatment effect on one or more symptoms of their disease (e.g., pain, infection or significant bleeding).
- The FDA agreed to work with us to quantify symptom control in this patient population.
- In reference to discussions on the potential for breakthrough therapy designation, “FDA advised Provectus to provide objective response rates with adequate information to evaluate the symptomatic treatment effects (e.g. pain, infection, bleeding) in patients presenting with locally advanced cutaneous melanoma who received PV-10 to all lesions.”

The Phase 2 study of PV-10 showed:

- Among all 80 intent-to-treat melanoma patients, 26% achieved a complete response and another 25% achieved a partial response (shrinkage by at least 30%) of their injected study tumors (51% objective response rate, confidence interval 40-63%).
- In the subgroup of melanoma patients that received PV-10 injection into all known disease (28 of the 80 ITT patients), 50% achieved a complete response (71% ORR, CI 51-87%).
- In the subgroup of melanoma patients with locally advanced cutaneous melanoma that received PV-10 injection into all known disease or only had 1 or 2 designated bystander tumors untreated (54 of the 80 ITT patients), a complete response was achieved in 232 of 363 injected tumors (64% of lesions) with the vast majority of these tumors requiring only 1 or 2 injections.

These data show that if a tumor is accessible to PV-10 injection, the drug is likely to destroy that tumor. If approved, PV-10 would be the first tissue-sparing local therapy for recurrent melanoma.

We have continued to observe that the FDA may yet recommend and it may be in our best interest to undertake a small, short bridging study in patients where all tumor burden can be injected. This would allow more frequent dosing than was permitted in the Phase 2 study, presumably akin to the dosing schedule currently used to treat nearly 100 patients under our expanded access protocol, and allow symptomatic endpoints to be prospectively correlated with objective response criteria. We have \$18 million in cash reserves and would not require additional capital or the resources of a partner to conduct such a study. If such a study is conducted, it also fits with needs for an international study supportive of licensure in Australia, Europe, China and India.

Non-specific local treatments that temporarily reduce tumor burden, such as surgery and radiation, are the most commonly used cancer therapies today. Furthermore, we believe our clinical and immunologic mechanism data show that it may be possible to delay or prevent melanoma metastasis to distant sites. Measurement of tumor shrinkage via objective response criteria has been considered direct clinical benefit in drug approvals for other skin cancers, and we believe a similar case can be made for PV-10 in locally advanced cutaneous melanoma. As advised by the FDA, we will submit data from the 28 patients in our Phase 2 study who had all existing disease treated in a formal BTDR request, and should receive a decision within 60 days of receipt of that request.

While the rapid ablative effect immediately evident in patients treated with PV-10 highlights our path to initial approval, the bystander effect continues to be of scientific interest and studies to quantify systemic tumor-specific immune response in cancer patients are ongoing. This emerging understanding of the secondary effect of tumor ablation with PV-10 is an important foundation for future studies to assess the long-term impact of PV-10 on distant metastasis and possible combination strategies for use of PV-10 in the treatment of cancer patients with more advanced disease.

Ongoing immunologic mechanism of action studies at the Moffitt Cancer Center (Moffitt) have been conducted in 2011, 2012, 2013 and thus far in 2014 to characterize the systemic benefit of PV-10. A feasibility study to detect immune cell infiltration into melanomas treated by PV-10 was commenced in January 2013.

Initial data was presented at the 2012 Society of Surgical Oncology Annual Meeting, confirms that PV-10 immuno-chemoablation of melanoma lesions leads to a systemic response and the induction of systemic anti-tumor immunity. We are assessing whether emerging results from these ongoing studies can be used to support accelerated approval in the U.S. Additionally, data on PV-10 was presented by Moffitt in a poster presentation at the American Association for Cancer Research 2013 Annual Meeting in Washington, DC. The PV-10 combination therapy poster, based upon an abstract entitled "Combination of PV-10 immuno-chemoablation and systemic anti-CTLA-4 antibody therapy in murine models of melanoma," authored by Eric Wachter, Savannah Blair, Jamie Singer and Craig Dees, was presented as well.

In August, 2013, Moffitt stated that a single injection (PV-10) may revolutionize melanoma treatment. In their initial study, researchers injected a single dose of PV-10 into mice with melanoma. The result was a significant reduction in the skin cancer lesions, as well as a sizable reduction in melanoma tumors that had spread to the lungs. The researchers said the dye solution appeared to produce a robust anti-tumor immune response and may be safer than existing immunological agents.

Moffitt is currently in the middle of their first human clinical trial of PV-10 for advanced melanoma patients. In addition to monitoring the response of injected melanoma tumors, Moffitt is also measuring the boost in the anti-tumor immune cells of patients after injection. The initial study appears in PLOS ONE, an open-access, peer-reviewed online journal.

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On March 6, 2014, it was reported that PV-10 Immune Mechanism Data to Be Presented at the American Association for Cancer Research Annual Meeting by Moffitt Cancer Center via a Poster Presentation. The poster, based upon abstract #630, entitled "Induction of anti-melanoma immunity after intralesional ablative therapy," authored by Hao Liu, Krithika Kodumudi, Amy Weber, Amod A. Sarnaik and Shari Pilon-Thomas, will be presented on Sunday, April 6, 2014.

We also report ongoing progress with our Compassionate Use Program for PV-10 for non-visceral cancers. With nearly 100 patients enrolled in six publicized centers across the U.S. and Australia, the protocol enables subjects to undergo more frequent and extensive treatments of PV-10 over a longer period of time than was allowed under the protocol used for the Phase 2 trials. Its dosage is expected to serve as the blueprint for the treatment of recurrent melanoma in the potential short bridging study and upon potential approval.

We are continuing to assess whether we should conduct any additional work by ourselves, or when to partner with a larger company to further co-develop PV-10, as well as potential paths to accelerated and expedited approval in the U.S. and abroad, including in China and India.

Liver Cancer

According to Global Cancer Facts & Figures, 2nd Edition, liver cancer is the fifth leading cause of deaths related to cancer in the world in men and seventh in women. Approximately 750,000 people are newly diagnosed annually with primary liver cancer, also known as Hepatocellular carcinoma (HCC), with China alone accounting for about 55% of the cases diagnosed each year. The world market for liver cancer drugs is projected to exceed \$2.0 billion by 2015 and does not include the full impact of the China market potential.

Early detection is difficult and as a result, most cases reach an advanced metastatic stage and are unresectable. If the cancer cannot be completely removed, the disease is usually deadly within three to six months. Malignant lesions in the liver arising from HCC or metastases from a wide range of cancers represent an ongoing treatment challenge for oncologists. HCC is one of the most common malignancies worldwide, and its incidence is rapidly increasing in the United States. The liver is a common site of metastases from solid tumors, particularly those arising in the gastrointestinal tract. Other tumors, such as lung and breast cancer and melanoma, also readily spread to the liver.

In 2009, we began a Phase 1 study of PV-10 to assess the safety, tolerability and pharmacokinetics of single intralesional injections of PV-10 with subjects with either recurrent hepatocellular carcinoma or cancer metastatic to the liver. In January 2011, we completed patient accrual of all subjects in the Phase 1 study. The primary outcome measure was safety, including systemic and locoregional adverse events. The secondary outcome measures were (i) lesion distribution and retention of PV-10 following injection, (ii) ORR of target and measurable bystander lesions (if present) by modified RECIST, (iii) changes in markers of hepatic function, including ALP, ALT, AST, total bilirubin and GGT, and (iv) pharmacokinetics of PV-10 in the bloodstream following intralesional injection.

Final results for PV-10 as a treatment for liver cancer are very encouraging as they show the treatment was generally well-tolerated, with substantial evidence of efficacy. We believe PV-10's ability to selectively target and destroy cancer cells without harming surrounding healthy tissue make it a potentially attractive therapy for cancers of the liver, which can be very serious and difficult to treat if they cannot be fully removed through surgery. Based upon the initial results of our PV-10 Phase 1 trial for liver cancer, and the growing confidence we have in PV-10 as a viable treatment for non-resectable liver cancer, we are currently designing a Phase 2 study with the potential for accelerated approval.

In April 2011, we received orphan drug designation by the FDA for Rose Bengal, the active ingredient in PV-10, for the treatment of HCC, the most common form of primary liver cancer.

In September 2012, we commenced an expansion of the Phase 1 study, which we continued in 2013 and thus far in 2014. Drug-drug metabolic interaction nonclinical studies of PV-10 and sorafenib provided the data to support additional work within the regulatory framework for this important indication. We plan to commence a potentially pivotal study in 2014. This study is potentially pivotal since it would be powered to enable accelerated approval under the auspices of a proposed Breakthrough Therapy Designation request for PV-10 to treat primary liver cancer.

We collaborated with XenoTech, a preclinical CRO and pioneer in collaborative research surrounding in vitro drug metabolism and pharmacokinetics (DMPK) services, in writing an article describing a study to determine the potential of rose bengal disodium to cause drug-drug interactions which has been published by Xenobiotica, a peer-reviewed scientific journal that publishes comprehensive research papers on pharmacokinetics (the study of distribution, metabolism, disposition and excretion of drugs). The published research indicated that the risk of PV-10 causing clinically relevant drug-drug interactions is likely minimal. PV-10, a 10% solution of rose bengal that is currently under clinical investigation as a novel cancer therapeutic, is designed to selectively target and destroy cancer cells without harming surrounding healthy tissue, minimizing the potential for systemic side effects.

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The study was undertaken prior to initiation of the now ongoing testing of PV-10 plus sorafenib (cohort 2) in a clinical trial of PV-10 intralesional injection in hepatocellular carcinoma patients taking a stable dose of sorafenib. Sorafenib is a competitive inhibitor of cytochrome P450 (CYP) drug metabolism enzymes and is reliant on the UDP-glucuronosyltransferase (UGT) pathway for efficient clearance. CYP and UGT enzymes help to biotransform small lipophilic drugs like sorafenib into water-soluble excretable metabolites.

Provectus researchers collaborated with XenoTech's experts to design the appropriate in vitro experiments necessary to assess the risk for potential liability when rose bengal is co-administered with other drugs in humans. Rose bengal, known for inducing singlet oxygen on exposure to light, can cause erroneous results in conventional in vitro test systems. These assay artifacts were shown to be test system dependent in DMPK studies. XenoTech scientists successfully tailored experiments to ascertain CYP and UGT inhibition potential in more appropriate model systems.

Breast Cancer

In 2005, we began a Phase 1 study of PV-10 to assess the safety and tolerability of injections of PV-10 into recurrent breast carcinoma. We completed the Phase 1 study in 2008. The primary outcome measure was systemic and locoregional adverse experience. The secondary outcome measures were (i) histopathologic response of PV-10 injected lesions and (ii) wound healing of PV-10 injected lesions.

We are very pleased with the results of this Phase 1 clinical trial, a classic ascending dose study. Its goals were to determine the safety of the treatment and the appropriate dosage. We have also wanted to show that PV-10 has multi-indication potential. We continued to demonstrate this objective in 2011, 2012, 2013, and expect to do so in 2014. We are now in a position for a Phase 2 study in recurrent breast carcinoma with our lead oncology drug product candidate PV-10. We are evaluating potential for further development of PV-10 to treat recurrent breast cancer based on the published data provided by Moffitt as well as interest to address this important indication.

Other Indications

The compassionate use program for PV-10 is only available for cancer indications that do not involve treatment of visceral organs and are not subject to enrollment in ongoing clinical trials. These indications include certain breast cancers, basal cell carcinoma, squamous cell carcinoma, certain head and neck cancers and melanoma. Compassionate use programs provide patients with access to experimental therapeutics prior to FDA approval.

The protocol for the compassionate use program enables subjects to undergo more frequent and extensive treatments of PV-10 over a longer period of time than was allowed under the protocol used for the Phase 2 trial of PV-10. Based on the success of the compassionate use program, its dose regimen is expected to serve as the blueprint for additional PV-10 clinical studies. The majority of patients enrolled in the program have been treated for melanoma, with other patients for other indications such as recurrent squamous cell carcinoma and scalp sarcoma.

Additionally, we are considering a clinical study of PV-10 for pancreatic cancer as well as other solid tumor indications.

Dermatology (PH-10)

Our prescription drug candidate PH-10 is an aqueous hydrogel formulation of Rose Bengal for topical administration to the skin. It is a novel nonsteroidal anti-inflammatory agent that interacts with ambient and other light sources. We are developing PH-10 for the treatment of cutaneous skin disorders, specifically psoriasis and atopic dermatitis, and we believe that PH-10 may be successful in treating other skin diseases. We believe that PH-10 offers a superior treatment for psoriasis and atopic dermatitis because it selectively treats diseased tissue with negligible potential for side effects in healthy tissue.

We have been actively discussing licensing transactions with a number of potential out licensing partners for PH-10. We believe that our Phase 2c trial of PH-10 for psoriasis will further solidify the commercial viability of PH-10 in these discussions. In August 2011, we completed follow-up of all Phase 2c patients and communicated data of the study to both prospective partners as well as the public market in early 2012.

Psoriasis

Psoriasis is a common chronic disorder of the skin characterized by dry scaling patches, called “plaques,” for which current treatments are few and those that are available have potentially serious side effects. There is no known cure for the disease at this time. According to the National Institutes of Health, as many as 7.5 million Americans, or approximately 2.2 percent of the U.S. population, have psoriasis. The National Psoriasis Foundation reports that approximately 125 million people worldwide, 2 to 3 percent of the total population, have psoriasis. It also reports that total direct and indirect health care costs of psoriasis for patients exceed \$11 billion annually.

According to the National Psoriasis Foundation, the majority of psoriasis sufferers, those with mild to moderate cases, are treated with topical steroids that can have unpleasant side effects. None of the other treatments for moderate cases of psoriasis have proven completely effective. The 25-30% of psoriasis patients who suffer from more severe cases generally are treated with more intensive drug therapies or PUVA, a light-based therapy that combines the drug Psoralen with exposure to ultraviolet A light. While PUVA is one of the more effective treatments, it increases a patient’s risk of skin cancer.

Our Phase 1 study for PH-10 was initiated in April 2001 to evaluate the safety of three different doses of PH-10 in separate patient segment groups. Subjects in the study each received a single dose of PH-10 followed by administration of green light on psoriatic plaques. Subjects were examined post-treatment, with a final follow-up examination at 90 days.

Our Phase 2 study of PH-10 for treatment of psoriasis was initiated in 2009 and completed in April 2010. There were 30 subjects treated in the completed Phase 2 study, and an additional six subjects were treated in an earlier study that was terminated in favor of an increased dosing frequency. Consistent with the preliminary data that we announced in December 2009, 70% of the 30 subjects enrolled in the Phase 2 clinical trial of PH-10 for psoriasis demonstrated improvement in their Psoriasis Severity Index (PSI) scores at the end of four weeks of daily treatment with PH-10. In addition, 86% of subjects reported no or only mild pruritus (itching) by week four of the trial, and no significant safety issues were noted. At the four week interval substantial improvement was observed across all standard disease assessment scores.

During 2010, we initiated a Phase 2c clinical trial of PH-10 for psoriasis. This multicenter, randomized controlled Phase 2c study enrolled 99 subjects at four different sites, which began in December 2010. The subjects were randomized sequentially by center to one of four treatment cohorts, and assessed efficacy and safety of topical PH-10 applied once daily to areas of mild to moderate plaque psoriasis. The primary efficacy endpoint was “treatment success,” a static endpoint assessed at day 29 after initial PH-10 treatment and defined as 0 or 1 on all Psoriasis Severity Index (PSI) components and 0 or 1 on the Plaque Response scale. The primary safety endpoint was incidence of adverse experiences, including pain and dermatologic/skin toxicity (incidence, severity, frequency, duration and causality). The secondary outcome measures were (i) Psoriasis Severity Index (PSI) score changes at each visit from day 1 pre-treatment, (ii) Plaque Response score changes at each visit from day 1 pre-treatment, and (iii) Pruritus Self-Assessment score changes at each visit from day 1 pre-treatment.

The Phase 2c trial was conducted at four sites in the U.S. including the Mount Sinai School of Medicine in New York City, Wake Research Associates in Raleigh, NC, Dermatology Specialists in Oceanside, CA and International Dermatology Research in Miami, FL. With over 90 subjects, this trial is the largest dermatological trial that we have conducted to date.

The results of this study helped define the parameters necessary for the design of a pivotal Phase 3 trial, and it was an important milestone on the regulatory pathway leading towards commercialization. In addition, we’ve held discussions with a number of potential out licensing partners, and we believe this Phase 2c trial has further solidified the commercial viability of PH-10 in these discussions. We have also continued important toxicity study research and development in 2012, 2013 and thus far in 2014 to prepare for a successful Phase 3 study and to support a successful New Drug Approval filing.

Atopic Dermatitis

Atopic Dermatitis, the most severe and common type of eczema, is a long-term skin disease that causes dry and itchy skin, rashes on the face, inside the elbows, behind the knees, and on the hands and feet. Scratching of the afflicted skin can cause redness, swelling, cracking, weeping clear fluid, crusting, thick skin, and scaling. According to the National Eczema Association, physicians estimate that 65% of eczema patients are diagnosed in the first year of life and 90% of patients experience it before age five. Often the symptoms fade during childhood, though most will have atopic dermatitis for life. The National Eczema Association estimates that atopic dermatitis affects over 30 million Americans.

In 2008, we initiated a Phase 2 study of PH-10 for the treatment of atopic dermatitis. This Phase 2 study assessed whether topical PH-10 applied once daily to mild, moderate or severe atopic dermatitis may ameliorate inflammation of the skin when activated by ambient light. The subjects applied PH-10 daily for 28 days to skin areas affected by atopic dermatitis. The subjects were assessed weekly during the treatment period and for four weeks following the treatment period. The primary outcome measures were (i) treatment success, defined as a score of 0 to 1 at day 28, the end of the study treatment period, by the Investigator’s Global Assessment (IGA) scoring system for atopic dermatitis status, and (ii) adverse experience, including pain and dermatologic/skin

toxicity (incidence, severity, frequency, duration and causality) during the eight weeks following treatment.

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Data from the subjects indicated that a substantial majority of subjects had improvement in the Eczema Area Severity Index (EASI) during four weeks of treatment. The treatments were generally well tolerated with no significant safety issues identified. At the four week interval substantial improvement was observed across all standard disease assessment scores. We have also continued important toxicity study research and development in 2012, 2013 and thus far in 2014 to prepare for continued development in this important indication and to support a successful New Drug Approval filing.

Other Indications

We have investigated the use of PH-10 for treatment of actinic keratosis (also called solar keratosis or senile keratosis), which is the most common pre-cancerous skin lesion among fair-skinned people and is estimated to occur in over 50% of elderly fair-skinned persons living in sunny climates. We have previously conducted a Phase I clinical trial of PH-10 for actinic keratosis to examine the safety profile of a single treatment using topical PH-10 with green light photoactivation. No significant safety concerns were identified in the study. We have decided to prioritize further clinical development of PH-10 for treatment of psoriasis and atopic dermatitis rather than actinic keratosis at this time since the market is much larger for psoriasis and atopic dermatitis.

We have also conducted pre-clinical studies of PH-10 for use in treating severe acne vulgaris. Moderate to severe forms of the disease have proven responsive to several photodynamic regimens, and we anticipate that PH-10 can be used as an advanced treatment for this disease. Our pre-clinical studies show that the active ingredient in PH-10 readily kills bacteria associated with acne. This finding, coupled with our clinical experience in psoriasis, atopic dermatitis, and actinic keratosis, suggests that therapy with PH-10 will exhibit no significant side effects and will afford improved performance relative to other therapeutic alternatives. If correct, this would be a major advance over currently available products for severe acne.

The active ingredient in PH-10 is photoactive in that it reacts to light of certain wavelengths thereby potentially increasing its therapeutic effects. We believe that photodynamic treatment regimens can deliver a higher therapeutic effect at lower dosages of active ingredient, thus minimizing potential side effects including damage to nearby healthy tissues. PH-10 is especially responsive to green light, which is strongly absorbed by the skin and thus only penetrates the body to a depth of about three to five millimeters. For this reason, in the past we have investigated PH-10 combined with green-light activation, for topical use in surface applications where serious damage could result if medicinal effects were to occur in deeper tissues.

Over-the-Counter Pharmaceuticals

We have designated our subsidiary that holds our OTC products, GloveAid and Pure-ific, Pure-Stick, Pure N Clear as non-core. The potential further development and licensure of our OTC products would likely be facilitated by selling a majority stake of the underlying assets of the non-core subsidiary holding the OTC products. This transaction would likely be accomplished through a non-core spin-out process, which would enable the non-core subsidiary to become a separate publicly held company. The new public entity could then raise funds without diluting the ownership of the then current shareholders of the Company.

GloveAid

Personnel in many occupations and industries now use disposable gloves daily in the performance of their jobs, including airport security personnel, food handling and preparation personnel, health care workers such as hospital and blood bank personnel, laboratory researchers, police, fire and emergency response personnel, postal and package delivery handlers and sorters, and sanitation workers.

Accompanying the increased use of disposable gloves is a mounting incidence of chronic skin irritation. To address this market, we have developed GloveAid, a hand cream with both antiperspirant and antibacterial properties, to increase the comfort of users' hands during and after the wearing of disposable gloves. During 2003, we ran a pilot scale run at the manufacturer of GloveAid.

Pure-ific

Our Pure-ific line of products includes two quick-drying sprays, Pure-ific and Pure-ific Kids, that immediately kill up to 99.9% of germs on skin and prevent regrowth for six hours. We have determined the effectiveness of Pure-ific based on our internal testing and testing performed by Paratus Laboratories H.B., an independent research lab. Pure-ific products help prevent the spread of germs and thus complement our other OTC products designed to treat irritated skin or skin conditions

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such as acne, eczema, dandruff and fungal infections. Our Pure-ific sprays have been designed with convenience in mind and are targeted towards mothers, travelers, and anyone concerned about the spread of sickness-causing germs. During 2003 and 2004, we identified and engaged sales and brokerage forces for Pure-ific. We emphasized getting sales in independent pharmacies and mass (chain stores) markets. The supply chain for Pure-ific was established with the ability to support large-scale sales and a starting inventory was manufactured and stored in a contract warehouse/fulfillment center. In addition, a website for Pure-ific was developed with the ability for supporting online sales of the antibacterial hand spray. During 2005 and 2006, most of our sales were generated from customers accessing our website for Pure-ific and making purchases online. We discontinued our proof-of-concept program in November 2006 and have, therefore, ceased selling our OTC products. We now intend to license the Pure-ific product, a strategy we have been discussing with interested groups. Additionally, we also intend to sell a majority stake in the underlying assets via a non-core spin-out transaction, as discussed below.

On December 15, 2011, we sold Units to accredited investors which included shares of common stock in Pure-ific and a warrant to purchase 3/4 of a share of the Company's common stock. A total of 666,666 Units were sold for gross proceeds of \$500,000 resulting in the sale of a 33% non-controlling interest in Pure-ific. At the time of the sale and as of December 31, 2011, the carrying value of the net assets in Pure-ific was \$0. The sale also resulted in the issuance of warrants to purchase 500,000 shares of the Company's common stock at an exercise price of \$1.25 per share with a five-year term. We intend to use the proceeds, after deducting offering expenses of approximately \$56,500, to spin-off Pure-ific as a new publicly-traded company, a process we have initiated but have not yet completed. Network 1 Financial Securities, Inc., served as placement agent for the offering.

Acne

Our acne products Pure-Stick and Pure N Clear work by decreasing the production of fats, oils and sweat that create an environment conducive to unchecked growth of bacteria. Secondly, the products also act to reduce the number of bacteria already present. Pure-Stick and Pure N Clear represent new formulations of proven, safe ingredients that achieve both steps required to successfully treat acne. Since Pure-Stick and Pure N Clear are applied topically to affected areas there are no safety concerns with healthy skin. The unique combinations have allowed the Company to secure patent protection for these products.

Medical Devices

We have non-core medical device technologies that we believe may address two major markets:

- cosmetic treatments, such as reduction of wrinkles and elimination of spider veins and other cosmetic blemishes; and
- therapeutic uses, including photoactivation of PH-10, other prescription drugs and non-surgical destruction of certain skin cancers.

We expect to further develop our non-core medical devices through partnerships with, or selling our assets to, third-party device manufacturers or, if appropriate opportunities arise, through acquisition of one or more device manufacturers. Additionally, the Company also intends to sell a majority stake in the underlying assets via a non-core spin-out transaction.

Photoactivation

Our clinical tests of PH-10 for dermatology have in the past utilized a number of commercially available lasers for activation of the drug. This approach has several advantages, including the leveraging of an extensive base of installed devices present throughout the pool of potential physician-adopters for PH-10. Access to such a base could play an integral role in early market capture. However, since the use of such lasers, which were designed for occasional use in other types of dermatological treatment, is potentially too cumbersome and costly for routine treatment of the large population of patients with psoriasis, we have begun investigating potential use of other types of photoactivation hardware, such as light booths. The use of such booths is consistent with current care standards in the dermatology field, and may provide a cost-effective means for addressing the needs of patients and physicians alike. We anticipate that such photoactivation hardware would be developed, manufactured, and supported in conjunction with one or more third-party device manufacturers.

Laser-Based Treatment of Melanoma

We have conducted extensive research on ocular melanoma at the Massachusetts Eye and Ear Infirmary (a teaching affiliate of Harvard Medical School) using a new laser treatment that may offer significant advantage over current treatment options. A single quick non-invasive treatment of ocular melanoma tumors in a rabbit model resulted in elimination of over 90% of tumors, and may afford significant advantage over invasive alternatives, such as surgical excision, enucleation, or

radiotherapy implantation. Ocular melanoma is rare, with approximately 2,000 new cases annually in the U.S. However, we believe that our extremely successful results could be extrapolated to treatment of primary melanomas of the skin, which have an incidence of over 60,000 new cases annually in the U.S. and a 6% five-year survival rate after metastasis of the tumor. We have performed similar laser treatments on large (averaging approximately 3 millimeters thick) cutaneous melanoma tumors implanted in mice, and have been able to eradicate over 90% of these pigmented skin tumors with a single treatment. Moreover, we have shown that this treatment stimulates an anti-tumor immune response that may lead to improved outcome at both the treatment site and at sites of distant metastasis. From these results, we believe that a device for laser treatment of primary melanomas of the skin and eye is nearly ready for human studies. We anticipate partnering with, or selling our assets to, a medical device manufacturer to bring it to market in reliance on a 510(k) notification. For more information about the 510(k) notification process, see “Federal Regulation of Therapeutic Products” below.

Research and Development

We continue to actively develop projects that are product-directed and are attempting to conserve available capital and achieve full capitalization of our company through equity and convertible debt offerings, generation of product revenues, and other means. All ongoing research and development activities are directed toward maximizing shareholder value and advancing our corporate objectives in conjunction with our OTC product licensure, our current product development and maintaining our intellectual property portfolio.

Research and development costs totaling \$3,595,555 for 2013 included payroll of \$1,459,057, consulting and contract labor of \$1,317,472, lab supplies and pharmaceutical preparations of \$310,160, legal of \$262,720, insurance of \$161,268, rent and utilities of \$78,512, and depreciation expense of \$6,366. Research and development costs totaling \$5,005,459 for 2012 included payroll of \$2,536,818, consulting and contract labor of \$2,008,270, lab supplies and pharmaceutical preparations of \$47,808, legal of \$231,430, insurance of \$97,728, rent and utilities of \$77,238, and depreciation expense of \$6,167. Research and development costs totaling \$8,807,896 for 2011 included payroll of \$6,182,147, consulting and contract labor of \$2,238,765, lab supplies and pharmaceutical preparations of \$57,467, legal of \$161,068, insurance of \$92,859, rent and utilities of \$68,234, and depreciation expense of \$7,356.

Production

We have determined that the most efficient use of our capital in further developing our OTC products is to license the products. The Company has been discussing this strategy with interested groups. Additionally, the Company also intends to sell a majority stake in the underlying assets via a non-core spin-out transaction.

Sales

We have not had any significant sales of any of our OTC products, though we commenced limited sales of Pure-ific, our antibacterial hand spray in 2004 through 2006, in a proof-of-concept program. We discontinued our proof-of-concept program in 2006 and have, therefore, ceased selling our OTC products. We will continue to seek additional markets for our products through existing distributorships that market and distribute medical products, ethical pharmaceuticals, and OTC products for the professional and consumer marketplaces through licensure, partnership and asset sale arrangements, and through potential merger and acquisition candidates.

In addition to developing and selling products ourselves on a limited basis, we are negotiating actively with a number of potential licensees for several of our intellectual properties, including patents and related technologies. To date, we have not yet entered into any licensing agreements; however, we anticipate consummating one or more such licenses in the future.

Intellectual Property

Patents

We hold a number of U.S. patents covering the technologies we have developed and are continuing to develop for the production of prescription drugs, non-core technologies and OTC pharmaceuticals. All patents material to an understanding of the Company are included and a cross reference to a discussion that explains the patent technologies and products is identified for each patent in the following table:

U.S. Patent No	Title and Cross Reference	Issue Date	Expiration Date
5,829,448	Method for improved selectivity in activation of molecular agents; see discussion under Medical Devices in Description of Business	November 3, 1998	October 30, 2016
5,832,931	Method for improved selectivity in photo-activation and detection of diagnostic agents; see discussion under Medical Devices in Description of Business	November 10, 1998	October 30, 2016
5,998,597	Method for improved selectivity in activation of molecular agents; see discussion under Medical Devices in Description of Business	December 7, 1999	October 30, 2016
6,042,603	Method for improved selectivity in photo-activation of molecular agents; see discussion under Medical Devices in Description of Business	March 28, 2000	October 30, 2016
6,331,286	Methods for high energy phototherapeutics; see discussion under Oncology in Description of Business	December 18, 2001	December 21, 2018
6,451,597	Method for enhanced protein stabilization and for production of cell lines useful production of such stabilized proteins; see discussion under Material Transfer Agreement in Description of Intellectual Property	September 17, 2002	April 6, 2020
6,468,777	Method for enhanced protein stabilization and for production of cell lines useful production of such stabilized proteins; see discussion under Material Transfer Agreement in Description of Intellectual Property	October 22, 2002	April 6, 2020
6,493,570	Method for improved imaging and photodynamic therapy; see discussion under Oncology in Description of Business	December 10, 2002	December 10, 2019
6,495,360	Method for enhanced protein stabilization for production of cell lines useful production of such stabilized proteins; see discussion under Material Transfer Agreement in Description of Intellectual Property	December 17, 2002	April 6, 2020
6,519,076	Methods and apparatus for optical imaging; see discussion under Medical Devices in Description of Business	February 11, 2003	October 30, 2016
6,525,862	Methods and apparatus for optical imaging; see discussion under Medical Devices in Description of Business	February 25, 2003	October 30, 2016
6,541,223	Method for enhanced protein stabilization and for production of cell lines useful production of such stabilized proteins; see discussion under Material Transfer Agreement in Description of Intellectual Property	April 1, 2003	April 6, 2020
6,986,740	Ultrasound contrast using halogenated xanthenes; see discussion under Oncology in Description of Business	January 17, 2006	September 9, 2023
6,991,776	Improved intracorporeal medicaments for high energy phototherapeutic treatment of disease; see discussion under Oncology in Description of Business	January 31, 2006	May 5, 2023

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U.S. Patent No	Title and Cross Reference	Issue Date	Expiration Date
7,036,516	Treatment of pigmented tissues using optical energy; see discussion under Medical Devices in Description of Business	May 2, 2006	January 28, 2020
7,201,914	Combination antiperspirant and antimicrobial compositions; see discussion under Over-the-Counter Pharmaceuticals in Description of Business	April 10, 2007	May 15, 2024
7,338,652	Diagnostic agents for positron emission imaging; see discussion under Oncology in Description of Business	March 4, 2008	September 25, 2025
7,346,387	Improved selectivity in photo-activation and detection of molecular diagnostic agents; see discussion under Medical Devices in Description of Business	March 18, 2008	October 30, 2016
7,353,829	Improved methods and apparatus for multi-photon photo-activation of therapeutic agents; see discussion under Medical Devices in Description of Business	April 8, 2008	April 23, 2020
7,384,623	A radiosensitizer agent comprising tetrabromoerythrosin; see discussion under Oncology in Description of Business	June 10, 2008	August 25, 2019
7,390,668	Intracorporeal photodynamic medicaments for photodynamic treatment containing a halogenated xanthene or derivative; see discussion under Dermatology in Description of Business	June 24, 2008	March 6, 2021
7,402,299	Intracorporeal photodynamic medicaments for photodynamic treatment containing a halogenated xanthene or derivative; see discussion under Dermatology in Description of Business	July 22, 2008	October 2, 2025
7,427,389	Diagnostic agents for positron emission Imaging; see discussion under Oncology in Description of Business	September 23, 2008	July 7, 2026
7,648,695	Improved medicaments for chemotherapeutic treatment of disease; see discussion under Oncology in Description of Business	January 19, 2010	July 6, 2021
7,863,047	Improved intracorporeal medicaments for photodynamic treatment of disease; see discussion under Dermatology in Description of Business	January 4, 2011	October 30, 2016
8,470,296	Improved intracorporeal medicaments for high energy photodynamic treatment of disease; see discussion under Dermatology in Description of Business	June 25, 2013	June 28, 2022
8,530,675	Process for the synthesis rose bengal and related xanthenes; see discussion under Oncology in Description of Business	September 10, 2013	July 13, 2031
8,557,298	Chemotherapeutic agents for cancer; see discussion under Oncology in Description of Business	October 15, 2013	June 23, 2020

We continue to pursue patent applications on numerous other developments we believe to be patentable. We consider our issued patents, our pending and patent applications, and any patentable inventions which we may develop to be extremely valuable assets of our business.

Material Transfer Agreement

We have entered into a “Material Transfer Agreement” dated as of July 31, 2003 with Schering-Plough Animal Health Corporation, which we refer to as “SPA”, the animal-health subsidiary of Schering-Plough Corporation, a major

international pharmaceutical company which is still in effect. Under the Material Transfer Agreement, we will provide SPAH with access to some of our patented technologies to permit SPAH to evaluate those technologies for use in animal-health applications. If SPAH determines that it can commercialize our technologies, then the Material Transfer Agreement obligates us and SPAH to enter into a license agreement providing for us to license those technologies to SPAH in exchange for progress payments upon the achievement of goals.

The Material Transfer Agreement covers four U.S. patents that cover biological material manufacturing technologies (i.e., biotech related). The Material Transfer Agreement continues indefinitely, unless SPAH terminates it by giving us notice or determines that it does not wish to secure from us a license for our technologies. The Material Transfer Agreement can also be terminated by either of us in the event the other party breaches the agreement and does not cure the breach within 30 days of notice from the other party. We cannot assure you that SPAH will determine that it can commercialize our technologies or that the goals required for us to obtain progress payments from SPAH will be achieved.

The Company has received no “progress payments” in relation to its Material Transfer Agreement with SPAH. Progress payments could potentially total \$50,000 for the first cell line for which SPAH uses our technology and \$25,000 for each use of the same technology thereafter. We do not know how many cell lines SPAH may have and we currently have no indication from SPAH that it intends to use any of our technologies in the foreseeable future.

Additionally, the Company also intends to sell a majority stake in these underlying assets via a non-core spin-out transaction.

Competition

In general, the pharmaceutical and biotechnology industries are intensely competitive, characterized by rapid advances in products and technology. A number of companies have developed and continue to develop products that address the areas we have targeted. Some of these companies are major pharmaceutical companies and biotechnology companies that are international in scope and very large in size, while others are niche players that may be less familiar but have been successful in one or more areas we are targeting. Existing or future pharmaceutical, device, or other competitors may develop products that accomplish similar functions to our technologies in ways that are less expensive, receive faster regulatory approval, or receive greater market acceptance than our products. Many of our competitors have been in existence for considerably longer than we have, have greater capital resources, broader internal structure for research, development, manufacturing and marketing, and are in many ways further along in their respective product cycles.

While it is possible that eventually we may compete directly with major pharmaceutical companies, we believe it is more likely that we will enter into joint development, marketing, or other licensure arrangements with such competitors. Eventually, we believe that we will be acquired.

We also have a number of market areas in common with traditional skincare cosmetics companies, but in contrast to these companies, our products are based on unique, proprietary formulations and approaches. For example, we are unaware of any products in our targeted OTC skincare markets that are similar to our Pure-ific product. Further, proprietary protection of our products may help limit or prevent market erosion until our patents expire.

Federal Regulation of Therapeutic Products

All of the prescription drugs we currently contemplate developing will require approval by the FDA prior to sales within the United States and by comparable foreign agencies prior to sales outside the United States. The FDA and comparable regulatory agencies impose substantial requirements on the manufacturing and marketing of pharmaceutical products and medical devices. These agencies and other entities extensively regulate, among other things, research and development activities and the testing, manufacturing, quality control, safety, effectiveness, labeling, storage, record keeping, approval, advertising and promotion of our proposed products. While we attempt to minimize and avoid significant regulatory bars when formulating our products, some degree of regulation from these regulatory agencies is unavoidable. Some of the things we do to attempt to minimize and avoid significant regulatory bars include the following:

- Using chemicals and combinations already allowed by the FDA;
- Using drugs that have been previously approved by the FDA and that have a long history of safe use; and
- Using chemical compounds with known safety profiles

The regulatory process required by the FDA, through which our drug or device products must pass successfully before they may be marketed in the U.S., generally involves the following:

- Preclinical laboratory and animal testing;

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- Submission of an application that must become effective before clinical trials may begin;
- Adequate and well-controlled human clinical trials to establish the safety and efficacy of the product for its intended indication; and
- FDA approval to market a given product for a given indication after the appropriate application has been filed

For pharmaceutical products, preclinical tests include laboratory evaluation of the product, its chemistry, formulation and stability, as well as animal studies to assess the potential safety and efficacy of the product. Where appropriate (for example, for human disease indications for which there exist inadequate animal models), we will attempt to obtain preliminary data concerning safety and efficacy of proposed products using carefully designed human pilot studies. We will require sponsored work to be conducted in compliance with pertinent local and international regulatory requirements, including those providing for Institutional Review Board approval, national governing agency approval and patient informed consent, using protocols consistent with ethical principles stated in the Declaration of Helsinki and other internationally recognized standards. We expect any pilot studies to be conducted outside the United States; but if any are conducted in the United States, they will comply with applicable FDA regulations. Data obtained through pilot studies will allow us to make more informed decisions concerning possible expansion into traditional FDA-regulated clinical trials.

If the FDA is satisfied with the results and data from preclinical tests, it will authorize human clinical trials. Human clinical trials typically are conducted in three sequential phases which may overlap. Each of the three phases involves testing and study of specific aspects of the effects of the pharmaceutical on human subjects, including testing for safety, dosage tolerance, side effects, absorption, metabolism, distribution, excretion and clinical efficacy.

Phase 1 clinical trials include the initial introduction of an investigational new drug into humans. These studies are closely monitored and may be conducted in patients, but are usually conducted in healthy volunteer subjects. These studies are designed to determine the metabolic and pharmacologic actions of the drug in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness. While the FDA can cause us to end clinical trials at any phase due to safety concerns, Phase 1 clinical trials are primarily concerned with safety issues. We also attempt to obtain sufficient information about the drug's pharmacokinetics and pharmacological effects during Phase 1 clinical trial to permit the design of well-controlled, scientifically valid, Phase 2 studies.

Phase 1 studies also evaluate drug metabolism, structure-activity relationships, and the mechanism of action in humans. These studies also determine which investigational drugs are used as research tools to explore biological phenomena or disease processes. The total number of subjects included in Phase 1 studies varies with the drug, but is generally in the range of twenty to eighty.

Phase 2 clinical trials include the early controlled clinical studies conducted to obtain some preliminary data on the effectiveness of the drug for a particular indication or indications in patients with the disease or condition. This phase of testing also helps determine the common short-term side effects and risks associated with the drug. Phase 2 studies are typically well-controlled, closely monitored, and conducted in a relatively small number of patients, usually involving several hundred people.

Phase 3 studies are expanded controlled and uncontrolled trials. They are performed after preliminary evidence suggesting effectiveness of the drug has been obtained in Phase 2, and are intended to gather the additional information about effectiveness and safety that is needed to evaluate the overall benefit-risk relationship of the drug. Phase 3 studies also provide an adequate basis for extrapolating the results to the general population and transmitting that information in the physician labeling. Phase 3 studies usually include several hundred to several thousand people.

Applicable medical devices can be cleared for commercial distribution through a notification to the FDA under Section 510(k) of the applicable statute. The 510(k) notification must demonstrate to the FDA that the device is as safe and effective and substantially equivalent to a legally marketed or classified device that is currently in interstate commerce. Such devices may not require detailed testing. Certain high-risk devices that sustain human life, are of substantial importance in preventing impairment of human health, or that present a potential unreasonable risk of illness or injury, are subject to a more comprehensive FDA approval process initiated by filing a premarket approval, also known as a "PMA," application (for devices) or accelerated approval (for drugs).

We have established a core clinical development team and have been working with outside FDA consultants to assist us in developing product-specific development and approval strategies, preparing the required submittals, guiding us through the regulatory process, and providing input to the design and site selection of human clinical studies. Historically, obtaining FDA approval for photodynamic therapies has been a challenge. Wherever possible, we intend to utilize lasers or other activating systems that have been previously approved by the FDA to mitigate the risk that our therapies will not be approved by the

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FDA. The FDA has considerable experience with lasers by virtue of having reviewed and acted upon many 510(k) and premarket approval filings submitted to it for various photodynamic and non-photodynamic therapy laser applications, including a large number of cosmetic laser treatment systems used by dermatologists.

The testing and approval process requires substantial time, effort, and financial resources, and we may not obtain FDA approval on a timely basis, if at all. Success in preclinical or early-stage clinical trials does not assure success in later-stage clinical trials. The FDA or the research institution sponsoring the trials may suspend clinical trials or may not permit trials to advance from one phase to another at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Once issued, the FDA may withdraw a product approval if we do not comply with pertinent regulatory requirements and standards or if problems occur after the product reaches the market. If the FDA grants approval of a product, the approval may impose limitations, including limits on the indicated uses for which we may market a product. In addition, the FDA may require additional testing and surveillance programs to monitor the safety and/or effectiveness of approved products that have been commercialized, and the agency has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs. Further, later discovery of previously unknown problems with a product may result in restrictions on the product, including its withdrawal from the market.

Marketing our products abroad will require similar regulatory approvals by equivalent national authorities and is subject to similar risks. To expedite development, we may pursue some or all of our initial clinical testing and approval activities outside the United States, and in particular in those nations where our products may have substantial medical and commercial relevance. In some such cases, any resulting products may be brought to the U.S. after substantial offshore experience is gained. Accordingly, we intend to pursue any such development in a manner consistent with U.S. standards so that the resultant development data is maximally applicable for potential FDA approval.

OTC products are subject to regulation by the FDA and similar regulatory agencies but the regulations relating to these products are much less stringent than those relating to prescription drugs and medical devices. The types of OTC products developed and previously sold by us only require that we follow cosmetic rules relating to labeling and the claims that we make about our product. The process for obtaining approval of prescription drugs with the FDA does not apply to the OTC products, which we have sold. The FDA can, however, require us to stop selling our product if we fail to comply with the rules applicable to our OTC products.

Employees

We currently employ four persons, all of whom are full-time employees. We currently engage four full-time consultants, including a lab technician, a contract research associate, an analytical chemist, and an information technology consultant.

Our executive officers are:

H. Craig Dees, Ph.D., 62, has served as our Chief Executive Officer and as a member of our board of directors since we acquired PPI, a privately held Tennessee corporation on April 23, 2002. Before joining us, from 1997 to 2002 he served as senior member of the management team of Photogen Technologies, Inc., including serving as a member of the board of directors of Photogen from 1997 to 2000. Prior to joining Photogen, Dr. Dees served as a Group Leader at the Oak Ridge National Laboratory and as a senior member of the management teams of LipoGen Inc., a medical diagnostic company which used genetic engineering technologies to manufacture and distribute diagnostic assay kits for auto-immune diseases, and TechAmerica Group Inc., now a part of Boehringer Ingelheim Vetmedica, Inc., the U.S. animal health subsidiary of Boehringer Ingelheim GmbH, an international chemical and pharmaceutical company headquartered in Germany. He earned a Ph.D. in Molecular Virology from the University of Wisconsin–Madison in 1984.

Timothy C. Scott, Ph.D., 55, has served as our President and as a member of our board of directors since we acquired PPI on April 23, 2002. Prior to joining us, Dr. Scott was a senior member of the Photogen management team from 1997 to 2002, including serving as Photogen's Chief Operating Officer from 1999 to 2002, as a director of Photogen from 1997 to 2000, and as interim CEO for a period in 2000. Before joining Photogen, he served as senior management of Genase LLC, a developer of enzymes for fabric treatment and held senior research and management positions at Oak Ridge National Laboratory. Dr. Scott earned a Ph.D. in Chemical Engineering from the University of Wisconsin–Madison in 1985.

Eric A. Wachter, Ph.D., 51, currently serves as our Chief Technology Officer since May 14, 2012 and prior to that served as Executive Vice President – Pharmaceuticals and as a member of our board of directors since we acquired PPI on April 23, 2002 until May 14, 2012. Prior to joining us, from 1997 to 2002 he was a senior member of the management team of Photogen, including serving as Secretary and a director of Photogen since 1997 and as Vice President and Secretary and a director of Photogen since 1999. Prior to joining Photogen, Dr. Wachter served as a senior research staff member with Oak Ridge National Laboratory. He earned a Ph.D. in Chemistry from the University of Wisconsin–Madison in 1988.

Peter R. Culpepper, 54, was appointed to serve as our Chief Financial Officer in February 2004 and is also our Chief Operating Officer. Previously, Mr. Culpepper served as Chief Financial Officer for Felix Culpepper International, Inc. from 2001 to 2004; was a Registered Representative with AXA Advisors, LLC from 2002 to 2003; has served as Chief Accounting Officer and Corporate Controller for Neptec, Inc. from 2000 to 2001; has served in various Senior Director positions with Metromedia Affiliated Companies from 1998 to 2000; has served in various Senior Director and other financial positions with Paging Network, Inc. from 1993 to 1998; and has served in a variety of financial roles in public accounting and industry from 1982 to 1993. He earned a Masters in Business Administration in Finance from the University of Maryland–College Park in 1992. He earned an AAS in Accounting from the Northern Virginia Community College–Annandale, Virginia in 1985. He earned a B.A. in Philosophy from the College of William and Mary–Williamsburg, Virginia in 1982. He is a licensed Certified Public Accountant in both Tennessee and Maryland.

Equity Financing During 2013

During the three months ended March 31, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$48,750. During the three months ended March 31, 2013, the Company issued 1,924,973 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$409,640. During the three months ended March 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$4,045,510. The Company accepted subscriptions, in the aggregate, for 5,394,013 shares of common stock and five year warrants to purchase 7,277,264 shares of common stock. Investors received five year fully vested warrants to purchase up to 100% to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$522,640 and issued five year fully vested warrants to purchase 539,401 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc.

On February 22, 2013, the Company entered into a Securities Purchase Agreement with certain accredited investors for the issuance and sale in a private placement of an aggregate of \$2,550,000 of units, at a purchase price of \$0.75 per unit. Each Unit consisted of one share of Series A 8% convertible preferred stock, par value \$.001 per share, and a warrant to purchase one and one-quarter shares of the Company's common stock, par value \$.001 per share (subject to adjustment) at an exercise price of \$1.00 per whole share (subject to adjustment). The Company used the net proceeds of the Private Placement for working capital, FDA trials, securing licensing partnerships, and general corporate purposes. Subject to the terms and conditions of the Purchase Agreement, each of the Investors purchased, and the Company sold and issued, the Units. Each of the parties gave customary representations and warranties, and the Investors made certain representations and warranties concerning their suitability and their status as accredited investors. In accordance with the terms of the Purchase Agreement, the Company entered into a Registration Rights Agreement with each of the Investors (the "Registration Rights Agreement"). Under the Registration Rights Agreement, the Company is required to prepare and file with the SEC a registration statement on Form S-1 under the Securities Act of 1933 within 45 calendar days of the effective date of the Registration Rights Agreement covering the resale of the shares of Common Stock issued to the Investors (a) upon conversion of the Series A 8% Convertible Preferred Stock and (b) upon exercise of the Warrants. Pursuant to the Registration Rights Agreement, if (i) the Registration Statement is not filed with the SEC on or prior to the Filing Deadline, (ii) the Company fails to file with the SEC a request for acceleration of the Registration Statement within five trading days after the SEC notifies the Company that it will not review the Registration Statement or the Registration Statement will not be subject to further review, (iii) the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the SEC with respect to the Registration Statement within 10 calendar days after receipt of comments or notice from the SEC that such amendment is required in order for the Registration Statement to be declared effective, (iv) the Registration Statement is not declared effective by the SEC on or prior to the 75th day after the effective date of the Registration Rights Agreement (or the 140th day after the effective date of the Registration Rights Agreement if the SEC determines to review the Registration Statement), or (v) the Company fails to continuously maintain the effectiveness of the Registration Statement, the Company will incur liquidated damages to the Investors on the date such failure occurs and on each monthly anniversary of the date such failure occurred until such failure is cured, in cash in an amount that is equal to the product of (A) 2.0% multiplied by (B) each Investor's purchase price. The Registration Rights Agreement also contains mutual indemnifications by the Company and each Investor which the Company believes are customary for transactions of this type. Pursuant to the Purchase Agreement, the Company issued an aggregate of 3,400,001 shares of Series A 8% Convertible Preferred Stock to the Investors. The Series A 8% Convertible Preferred Stock has the rights, privileges, preferences and restrictions set forth in the Certificate of Designation filed with the Secretary of State of the State of Nevada on February 21, 2013. The Certificate

of Designation authorizes for issuance up to 5,000,000 shares of Series A 8% Convertible Preferred Stock. Under the Certificate of Designation, each share of Series A 8% Convertible Preferred Stock is convertible into one share of Common Stock, subject to adjustment, at the option of the holder at any time, or at the option of the Company, within one trading day after any such time that the volume-weighted average price of Common Stock exceeds \$2.25 and the average daily trading volume exceeds 150,000 shares for 30 consecutive trading days. The right of holders of Series A 8% Convertible Preferred Stock to convert the Series A 8% Convertible Preferred Stock is subject to a 4.99% beneficial ownership limitation, which may be increased to 9.99% after providing notice of such increase to the Company. Dividends on the Series A 8% Convertible Preferred Stock will accrue at an annual rate of 8% of the original issue price and will be payable on a quarterly basis. The Company must pay cash dividends on the Series A 8% Convertible Preferred Stock in certain circumstances but may elect to satisfy its obligation to pay quarterly dividends either in cash or by distribution of Common Stock if the Company satisfies certain conditions set forth in the Certificate of Designation. Subject to the beneficial ownership limitations, holders of the Series A 8% Convertible Preferred Stock will be entitled to vote together with the holders of Common Stock, and not as a separate class, on an as-converted basis, except as otherwise required by Nevada law and except for certain corporate actions for which holders of the Series A 8% Convertible Preferred Stock will vote as a separate class. The Certificate of Designation contains customary anti-dilution protection. In addition, for a period of five years after the first issuance of the Series A 8% Convertible Preferred Stock, if the Company issues or is deemed to have issued additional shares of Common Stock without consideration or for a consideration per share less than the applicable conversion price, which is initially \$0.75 per share, then the conversion price of the Series A 8% Convertible Preferred Stock will be reduced, concurrently with such issue, to the consideration per share received by the Company for such issue or deemed issue of the additional shares of Common Stock. The Series A 8% Convertible Preferred Stock ranks senior to the Common Stock and on parity with the Company's existing 8% Convertible Preferred Stock with respect to distributions of assets upon liquidation, dissolution or winding up of the Company and the payment of dividends. Pursuant to the Purchase Agreement, the Company issued an aggregate of 4,250,000 Warrants to the Investors. The Warrants contain a cashless exercise provision and are immediately exercisable and will expire on the fifth anniversary of their issuance. The right of holders of Warrants to exercise Warrants for Common Stock will be subject to a 4.99% beneficial ownership limitation, which may be increased to 9.99% after providing notice of such increase to the Company. The Warrants contain customary anti-dilution protection. In addition, for a period of five years after the first issuance of Series A 8% Convertible Preferred Stock, if the Company issues or is deemed to have issued additional rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or convertible securities without consideration or for a consideration per share less than the applicable exercise price, which is initially \$1.00 per share, then the exercise price of the Warrants will be reduced, concurrently with such issue, to the consideration per share received by the Company for such issue or deemed issue of the additional rights, options or warrants. The foregoing descriptions of the Purchase Agreement, the Registration Rights Agreement, the Securities, the Certificate of Designation and the transactions contemplated therein are qualified in their entirety by reference to the full text of such agreements and instruments, which are filed as exhibits hereto and are incorporated herein by reference. Such agreements and instruments have been included to provide investors and security holders with information regarding their terms. They are not intended to provide any other factual information about the Company. The transaction documents contain certain representations, warranties and indemnifications resulting from any breach of such representations or warranties. Investors and security holders should not rely on the representations and warranties as characterizations of the actual state of facts because they were made only as of the respective dates of such documents. In addition, information concerning the subject matter of the representations and warranties may change after the respective dates of such documents, and such subsequent information may not be fully reflected in the Company's public disclosures. In January 2014, the remaining Series A 8% Convertible Preferred Stock was converted to shares of common stock, and there are currently no shares of Series A 8% Convertible Preferred Stock outstanding.

During the three months ended June 30, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$49,500. During the three months ended June 30, 2013, the Company issued 2,605,000 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$931,655. During the three months ended June 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,641,501. The Company accepted subscriptions, in the aggregate, for 3,522,001 shares of common stock and five year warrants to purchase 5,283,003 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$314,173, accrued \$32,500 at June 30, 2013 which was paid in July 2013 and issued five year fully vested warrants to purchase 352,200 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc.

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During the three months ended September 30, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$51,250. During the three months ended September 30, 2013, the Company issued 442,000 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$186,223. During the three months ended September 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$4,613,037. The Company accepted subscriptions, in the aggregate, for 6,150,718 shares of common stock and five year warrants to purchase 9,226,077 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$564,686 and issued five year fully vested warrants to purchase 615,072 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended September 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,687,500. The Company accepted subscriptions, in the aggregate, for 3,583,333 shares of common stock and five year warrants to purchase 5,375,000 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Maxim Group LLC served as placement agent for the offering. In connection with the offering, the Company paid \$349,375 and issued five year fully vested warrants to purchase 358,333 shares of common stock with an exercise price of \$1.00 to Maxim Group LLC, which represents 10% of the total number of shares of common stock sold to investors solicited by Maxim Group LLC.

During the three months ended December 31, 2013, the Company issued 275,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$214,000. During the three months ended December 31, 2013, the Company issued 209,473 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$259,306. During the three months ended December 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$5,820,588. The Company accepted subscriptions, in the aggregate, for 7,760,784 shares of common stock and five year warrants to purchase 11,641,176 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company plans to use the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$747,302 and issued five year fully vested warrants to purchase 776,078 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended December 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$1,312,500. The Company accepted subscriptions, in the aggregate, for 1,750,000 shares of common stock and five year warrants to purchase 2,625,000 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Maxim Group LLC served as placement agent for the offering. In connection with the offering, the Company paid \$170,625 and issued five year fully vested warrants to purchase 175,000 shares of common stock with an exercise price of \$1.00 to Maxim Group LLC, which represents 10% of the total number of shares of common stock sold to investors solicited by Maxim Group LLC.

The issuances of the securities were exempt from the registration requirements of the Securities Act of 1933 by virtue of Section 4(2) and Rule 506 promulgated under Regulation D thereunder as transactions not involving a public offering.

Available Information

Our website is located at www.pvct.com. We make available free of charge through this website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed with or furnished to the Securities and Exchange Commission (SEC) pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Reference to our website does not constitute incorporation by reference of the information contained on the site and should not be considered part of this document.

All filings made by us with the SEC may be copied or read at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC as we do. The website is <http://www.sec.gov>.

ITEM 1A. RISK FACTORS.

Our business and its future performance may be affected by various factors, the most significant of which are discussed below.

We are a development stage company, have no prescription drug products approved for commercial sale, have incurred substantial losses, and expect to incur substantial losses and negative operating cash flow for the foreseeable future.

Our company is a development stage company that has no prescription drug products approved for commercial sale. We have never generated any substantial revenues and may never achieve substantial revenues or profitability. As of December 31, 2013, we have incurred net losses of \$146 million in the aggregate since inception in January 2002. We expect to incur substantial losses and negative operating cash flow for the foreseeable future. We may never achieve or maintain profitability, even if we succeed in developing and commercializing one or more of our prescription drug candidates, OTC products, or non-core technologies. We also expect to continue to incur significant operating expenditures and anticipate that our operating and capital expenses may increase substantially in the foreseeable future as we:

- continue to develop and seek regulatory approval for our prescription drug candidates PV-10 and PH-10;
- seek licensure of PV-10, PH-10, our OTC products, and our other non-core technologies;
- further develop our non-core technologies;
- implement additional internal systems and infrastructure; and
- hire additional personnel.

We also expect to experience negative operating cash flow for the foreseeable future as we fund our operating losses and any future capital expenditures. As a result, we will need to generate significant revenues in order to achieve and maintain profitability. We may not be able to generate these revenues or achieve profitability in the future. Our failure to achieve or maintain profitability could negatively impact the value of our common stock.

All of our existing prescription drug candidates are in early stages of development. It may be several years, if ever, until we have a prescription drug product available for commercial resale. If we do not successfully develop and license or commercialize our prescription drug candidates, or sell or license our OTC products or non-core technologies, we will not achieve revenues or profitability in the foreseeable future, if at all. If we are unable to generate revenues or achieve profitability, we may be unable to continue our operations.

We may need additional capital to conduct our operations and commercialize and/or further develop our prescription drug candidates in 2015 and beyond, and our ability to obtain the necessary funding is uncertain.

We estimate that our existing capital resources will be sufficient to fund our current and planned operations until 2015. However, we may need additional capital in 2015 and beyond as we continue to develop and seek commercialization of our prescription drug candidates. We intend to proceed as rapidly as possible with licensure of PH-10 on the basis of our expanding Phase 2 atopic dermatitis and psoriasis results, which were significantly developed in 2012 and 2013. We potentially may license PV-10 depending on the timing for the optimal deal structure for our stockholders. We intend to also proceed as rapidly as possible with the sale or licensure of our OTC products and other non-core technologies. Although we believe that there is a reasonable basis for our expectation that we will become profitable due to the licensure of PH-10, PV-10 and the sale or licensure of our OTC products and non-core technologies, we cannot assure you that we will be able to achieve, or maintain, a level of profitability sufficient to meet our operating expenses.

We have based our estimate of capital needs on assumptions that may prove to be wrong, and we cannot assure you that estimates and assumptions will remain unchanged. For example, we are currently assuming that we will continue to operate without any significant staff or other resources expansion. We intend, if necessary, to acquire additional funding through public or private equity or debt financings or other financing sources that may be available; however, our primary interest is to not enter into additional private placements. Nevertheless, additional financing may not be available on acceptable terms, or at all. As discussed in more detail below, additional equity financing could result in significant dilution to stockholders. Further, in the event that additional funds are obtained through licensing or other arrangements, these arrangements may require us to relinquish rights to some of our products, product candidates, and technologies that we would otherwise seek to

develop and commercialize ourselves. If sufficient capital is not available, we may be required to delay, reduce the scope of, or eliminate one or more of our programs, any of which could have a material adverse effect on our business and may impair the value of our patents and other intangible assets.

Our prescription drug candidates are at an intermediary stage of development and may never obtain U.S. or international regulatory approvals required for us to commercialize our prescription drug candidates.

We will need approval of the United States Food and Drug Administration, which we refer to as the “FDA,” to commercialize our prescription drug candidates in the U.S. and approvals from the FDA equivalent regulatory authorities in foreign jurisdictions to commercialize our prescription drug candidates in those jurisdictions.

We are continuing to pursue clinical development of our most advanced prescription drug candidates, PV-10 and PH-10, for use as treatments for specific conditions. The continued and further development of these prescription drug candidates will require significant additional research, formulation and manufacture development, and pre-clinical and extensive clinical testing prior to their regulatory approval and commercialization. Pre-clinical and clinical studies of our prescription drug candidates may not demonstrate the safety and efficacy necessary to obtain regulatory approvals. Pharmaceutical and biotechnology companies have suffered significant setbacks in advanced clinical trials, even after experiencing promising results in earlier trials. Pharmaceutical drug and medical device products that appear to be promising at early stages of development may not reach the market or be marketed successfully for a number of reasons, including the following:

- a product may be found to be ineffective or have harmful side effects during subsequent pre-clinical testing or clinical trials,
- a product may fail to receive necessary regulatory clearance,
- a product may be too difficult to manufacture on a large scale,
- a product may be too expensive to manufacture or market,
- a product may not achieve broad market acceptance,
- others may hold proprietary rights that will prevent a product from being marketed, and
- others may market equivalent or superior products.

Satisfaction of the FDA’s regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product candidate and requires substantial resources for research, development and testing. We cannot predict whether our research and clinical approaches will result in drugs that the FDA considers safe for humans and effective for indicated uses. The FDA has substantial discretion in the drug approval process and may require us to conduct additional nonclinical and clinical testing or to perform post-marketing studies. The approval process may also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals may:

- delay commercialization of, and our ability to derive product revenues from, our product candidates;
- impose costly procedures on us; and
- diminish any competitive advantages that we may otherwise enjoy.

We do not expect any prescription drug and other product candidates that we are developing to be commercially available without a partner. Our research and product development efforts may not be successfully completed and may not result in any successfully commercialized products. Further, after commercial introduction of a new product, discovery of problems through adverse event reporting could result in restrictions on the product, including withdrawal from the market and, in certain cases, civil or criminal penalties.

Even if we comply with all FDA requests, we cannot be sure that we will ever obtain regulatory clearance for any of our prescription drug or other product candidates. Failure to obtain FDA approval of any of our product candidates will severely undermine our business by reducing our number of salable products and, therefore, corresponding product revenues.

In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize our drugs. Foreign regulatory approval processes generally include all of the risks associated with the FDA approval procedures described above.

Clinical trials are very expensive, time consuming and difficult to design and implement.

Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time consuming. We estimate that current or future clinical trials of our prescription drug candidates will take additional years to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials may be delayed by several factors, including:

- unforeseen safety issues;
- determination of dosing issues;
- lack of effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

In addition, we or the FDA may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in our submissions or the conduct of these trials.

The results of our clinical trials may not support our claims concerning our prescription drug candidates.

Even if our clinical trials are completed as planned, we cannot be certain that their results will support our claims concerning our prescription drug candidates. Success in nonclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the results of later clinical trials will replicate the results of prior clinical trials and nonclinical testing. The clinical trial process may fail to demonstrate that our product candidates are safe for humans or effective for indicated uses. This failure would cause us to abandon a product candidate and may delay development of other product candidates. Any delay in, or termination of, our clinical trials will delay our ability to commercialize our product candidates and generate product revenues. In addition, we anticipate that our clinical trials will involve only a small patient population. Accordingly, the results of such trials may not be indicative of future results over a larger patient population.

Physicians and patients may not accept and use our prescription drug candidates.

Even if the FDA approves our prescription drug candidates, physicians and patients may not accept and use them. Acceptance and use of our prescription drug products will depend upon a number of factors including:

- perceptions by members of the health care community, including physicians, about the safety and effectiveness of our prescription drug products;
- cost-effectiveness of our prescription drug products relative to competing products;
- availability of reimbursement for our prescription drug products from government or other healthcare payers; and
- effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

Because we expect sales or licensure of our prescription drug candidates, if approved, to generate substantially all of our revenues for the foreseeable future, the failure of any of these drugs to find market acceptance would harm our business and could require us to seek additional financing.

We have no sales, marketing or distribution capabilities for our prescription drug candidates or our OTC products and non-core technologies.

We currently have no sales, marketing or distribution capabilities. We do not anticipate having the resources in the foreseeable future to allocate to the sales and marketing of our prescription drug candidates or our OTC products and non-core technologies. Our future success depends, in part, on our ability to enter into and maintain such collaborative relationships, the collaborator's strategic interest in the products under development and such collaborator's ability to successfully market and sell any such products. We intend to proceed as rapidly as possible with licensure of PH-10 on the basis of our Phase 2 atopic dermatitis and psoriasis results, which are in process of being further developed. We have determined that the most efficient use of our capital in further developing our OTC products is to license the products. There can be no assurance that we will be able to establish or maintain relationships with third party collaborators or develop in-house sales and distribution capabilities. To the extent that we depend on third parties for marketing and distribution, any revenues we receive will depend upon the efforts of such third parties, and there can be no assurance that such efforts will be successful. In addition, there can also be no assurance that we will be able to market and sell our product in the United States or overseas.

We cannot be sure that our OTC products or non-core technologies will be licensed or sold in the marketplace.

In order for our OTC products to become commercially successful and our non-core technologies to be further developed, we must license or sell those products and technologies. We have been discussing this strategy with interested groups, though we cannot be sure that we will be successful in licensing or selling such products or technologies.

Competition in the prescription pharmaceutical and biotechnology industries is intense, and we may be unable to succeed if our competitors have more funding or better marketing.

The pharmaceutical and biotechnology industries are intensely competitive. Other pharmaceutical and biotechnology companies and research organizations currently engage in or have in the past engaged in research efforts related to treatment of dermatological conditions or cancers of the skin, liver and breast, which could lead to the development of products or therapies that could compete directly with the prescription drug and other product candidates, and OTC products that we are seeking to develop and market.

Many companies are also developing alternative therapies to treat cancer and dermatological conditions and, in this regard, are our competitors. Many of the pharmaceutical companies developing and marketing these competing products have significantly greater financial resources and expertise than we do in:

- research and development;
- manufacturing;
- preclinical and clinical testing;
- obtaining regulatory approvals; and
- marketing.

Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Academic institutions, government agencies, and other public and private research organizations may also conduct research, seek patent protection, and establish collaborative arrangements for research, clinical development, and marketing of products similar to ours. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel as well as in acquiring technologies complementary to our programs.

In addition to the above factors, we expect to face competition in the following areas:

- product efficacy and safety;
- the timing and scope of regulatory consents;
- availability of resources;
- reimbursement coverage;
- price; and
- patent position, including potentially dominant patent positions of others.

Since our prescription candidates PV-10 and PH-10 have not yet been approved by the FDA or introduced to the marketplace, we cannot estimate what competition these products might face when they are finally introduced, if at all. We cannot assure you that these products will not face significant competition for other prescription drugs and generic equivalents.

If we are unable to secure or enforce patent rights, trademarks, trade secrets or other intellectual property our business could be harmed.

We may not be successful in securing or maintaining proprietary patent protection for our products and technologies we develop or license. In addition, our competitors may develop products similar to ours using methods and technologies that are beyond the scope of our intellectual property protection, which could reduce our anticipated sales. While some of our products have proprietary patent protection, a challenge to these patents can subject us to expensive litigation. Litigation concerning patents, other forms of intellectual property, and proprietary technology is becoming more widespread and can be protracted and expensive and can distract management and other personnel from performing their duties.

We also rely upon trade secrets, unpatented proprietary know-how, and continuing technological innovation to develop a competitive position. We cannot assure you that others will not independently develop substantially equivalent proprietary technology and techniques or otherwise gain access to our trade secrets and technology, or that we can adequately protect our trade secrets and technology.

If we are unable to secure or enforce patent rights, trademarks, trade secrets, or other intellectual property, our business, financial condition, results of operations and cash flows could be materially adversely affected. If we infringe on the intellectual property of others, our business could be harmed.

We could be sued for infringing patents or other intellectual property that purportedly cover products and/or methods of using such products held by persons other than us. Litigation arising from an alleged infringement could result in removal from the market, or a substantial delay in, or prevention of, the introduction of our products, any of which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

If we do not update and enhance our technologies, they will become obsolete.

The pharmaceutical market is characterized by rapid technological change, and our future success will depend on our ability to conduct successful research in our fields of expertise, to discover new technologies as a result of that research, to develop products based on our technologies, and to commercialize those products. While we believe that our current technology is adequate for our present needs, if we fail to stay at the forefront of technological development, we will be unable to compete effectively. Our competitors are using substantial resources to develop new pharmaceutical technologies and to commercialize products based on those technologies. Accordingly, our technologies may be rendered obsolete by advances in existing technologies or the development of different technologies by one or more of our current or future competitors.

If we lose any of our key personnel, we may be unable to successfully execute our business plan.

Our business is presently managed by four key employees:

- H. Craig Dees, Ph.D., our Chief Executive Officer;
- Timothy C. Scott, Ph.D., our President;
- Eric A. Wachter, Ph.D. our Chief Technology Officer; and
- Peter R. Culpepper, CPA, MBA, our Chief Financial Officer and Chief Operating Officer.

In addition to their responsibilities for management of our overall business strategy, Drs. Dees, Scott and Wachter are our chief researchers in the fields in which we are developing and planning to develop our prescription drug and other product candidates, and our OTC products. The loss of any of these key employees could have a material adverse effect on our operations, and our ability to execute our business plan might be negatively impacted. Any of these key employees may leave their employment with us if they choose to do so, and we cannot assure you that we would be able to hire similarly qualified employees if any of our key employees should choose to leave.

Because we have only four employees in total, our management may be unable to successfully manage our business.

In order to successfully execute our business plan, our management must succeed in all of the following critical areas:

- Researching diseases and possible therapies in the areas of dermatology and skin care, oncology, and biotechnology;
- Developing our prescription drug and other product candidates, and OTC products based on our research;
- Marketing and selling developed products;
- Obtaining additional capital to finance research, development, production, and marketing of our products; and
- Managing our business as it grows.

As discussed above, we currently have only four employees, all of whom are full-time employees. The greatest burden of succeeding in the above areas, therefore, falls on Drs. Dees, Scott, Wachter, and Mr. Culpepper. Focusing on any one of these areas may divert their attention from our other areas of concern and could affect our ability to manage other aspects of our business. We cannot assure you that our management will be able to succeed in all of these areas or, even if we do so succeed, that our business will be successful as a result. We anticipate adding an additional regulatory affairs officer on a consulting basis within several months. While we have not historically had difficulty in attracting employees, our small size and limited operating history may make it difficult for us to attract and retain employees in the future, which could further divert management's attention from the operation of our business.

The market price of our common stock has been highly volatile due to several factors that will continue to affect the price of our common stock.

Our common stock has traded as low as \$0.43 per share and as high as \$2.59 per share during the period beginning on January 1, 2012 and ending on December 31, 2013. We believe that our common stock is subject to wide price fluctuations because of several factors, including:

- absence of meaningful earnings and ongoing need for external financing;
- speculation inherent in the biotech small-cap industry;
- a relatively thin trading market for our common stock, aside from December 2013 and thus far in 2014, which causes trades of small blocks of stock to have a significant impact on our stock price;
- general volatility of the stock market and the market prices of other publicly-traded companies; and
- investor sentiment regarding equity markets generally, including public perception of corporate ethics and governance and the accuracy and transparency of financial reporting.

Financings that may be available to us under current market conditions frequently involve sales at prices below the prices at which our common stock trades on the OTC Bulletin Board, as well as the issuance of warrants or convertible equity or debt that require exercise or conversion prices that are calculated in the future at a discount to the then market price of our common stock. The current economic downturn has made the financings available to development-stage companies like us more dilutive in nature than they would otherwise be.

Any agreement to sell, or convert debt or equity securities into, our common stock at a future date and at a price based on the then current market price will provide an incentive to the investor or third parties to sell our common stock short to decrease the price and increase the number of shares they may receive in a future purchase, whether directly from us or in the market.

Our stock price is below \$5.00 per share and is treated as a “penny stock”, which places restrictions on broker-dealers recommending the stock for purchase.

Our common stock is defined as “penny stock” under the Exchange Act and its rules. The SEC has adopted regulations that define “penny stock” to include common stock that has a market price of less than \$5.00 per share, subject to certain exceptions. These rules include the following requirements:

- broker-dealers must deliver, prior to the transaction, a disclosure schedule prepared by the SEC relating to the penny stock market;
- broker-dealers must disclose the commissions payable to the broker-dealer and its registered representative;
- broker-dealers must disclose current quotations for the securities; and
- a broker-dealer must furnish its customers with monthly statements disclosing recent price information for all penny stocks held in the customer’s account and information on the limited market in penny stocks.

Additional sales practice requirements are imposed on broker-dealers who sell penny stocks to persons other than established customers and accredited investors. For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and must have received the purchaser’s written consent to the transaction prior to sale. If our common stock remains subject to these penny stock rules these disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for our common stock. As a result, fewer broker-dealers may be willing to make a market in our stock, which could affect a shareholder’s ability to sell their shares.

Future sales by our stockholders may adversely affect our stock price and our ability to raise funds in new stock offerings.

Sales of our common stock in the public market following any prospective offering could lower the market price of our common stock. Sales may also make it more difficult for us to sell equity securities or equity-related securities in the future at a time and price that our management deems acceptable. The current economic downturn has made the financings available to development-stage companies like us more dilutive in nature than they would otherwise be.

We currently intend to retain all of our future earnings rather than pay a cash dividend.

We have never declared or paid cash dividends on our common stock. We currently intend to retain all of our future earnings, if any, for use in our business and therefore do not anticipate paying any cash dividends on our common stock in the foreseeable future.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

We currently lease approximately 6,000 square feet of space outside of Knoxville, Tennessee for our corporate office and operations. Our monthly rental charge for these offices is approximately \$5,000 per month, and the lease is on a month-to-month basis. We believe that these offices generally are adequate for our needs currently and in the immediate future.

ITEM 3. LEGAL PROCEEDINGS.

Except as described below, we are not involved in any legal proceedings nor are we party to any pending claims that we believe could reasonably be expected to have a material adverse effect on our business, financial condition, or results of operations.

On January 2, 2013, Glenn Kleba (the "Plaintiff") derivatively on behalf of the Company, filed a shareholder derivative complaint in the Circuit Court for the State of Tennessee, Knox County (the "Court"), against H. Craig Dees, Timothy C. Scott, Eric A. Wachter, and Peter R. Culpepper (collectively, the "Executives"), Stuart Fuchs, Kelly M. McMasters, and Alfred E. Smith, IV (collectively, together with the Executives, the "Individual Defendants"), and against the Company as a nominal defendant (the "Shareholder Derivative Lawsuit"). The Shareholder Derivative Lawsuit alleges (i) breach of fiduciary duties, (ii) waste of corporate assets, and (iii) unjust enrichment, all three claims based on the Plaintiff's allegations that the defendants authorized and/or accepted stock option awards in violation of the terms of the Company's 2002 Stock Plan (the "Plan") by issuing stock options in excess of the amounts authorized under the Plan and delegated to defendant H. Craig Dees the sole authority to grant himself and the other Executives cash bonuses that the Plaintiff alleges to be excessive.

In April 2013, the Company's Board of Directors established a special litigation committee to investigate the allegations of the Shareholder Derivative Complaint and make a determination as to how the matter should be resolved. The special litigation committee conducted its investigation, and proceedings in the case were stayed pending the conclusion of the committee's investigation. The Company has established a reserve of \$100,000 for potential liabilities because such is the amount of the self-insured retention of its insurance policy.

On March 6, 2014, the Company filed a Joint Notice of Settlement (the "Settlement") in the Shareholder Derivative Lawsuit. In addition to the Company, the parties to the Settlement are the Plaintiff and the Individual Defendants. By entering into the Settlement, the settling parties have resolved the derivative claims to their mutual satisfaction. The Individual Defendants have not admitted the validity of any claims or allegations and the Plaintiff has not admitted that any claims or allegations lack merit or foundation. By the terms of the Settlement, (i) the Executives each agreed (A) to re-pay to the Company \$2.24 Million of the cash bonuses they received in 2010 and 2011, which amount equals 70% of such bonuses or an estimate of the after-tax net proceeds to each Executive; provided, however, that subject to certain terms and conditions set forth in the term sheet, which sets forth the terms and conditions of the Settlement (the "Term Sheet"), the Executives are entitled to a 2:1 credit such that total actual repayment may be \$1.12 Million each; (B) to reimburse the Company for 25% of the actual costs incurred by the Company as a result of the Shareholder Derivative Lawsuit; and (C) to grant to the Company a first priority security interest in 1,000,000 shares of the Company's common stock owned by each such Executive to serve as collateral for the amounts due to the Company under the Term Sheet; (ii) Drs. Dees and Scott and Mr. Culpepper agreed to retain incentive stock options for 100,000 shares but shall forfeit 50% of the nonqualified stock options granted to each such Executive in both 2010 and 2011. The Term Sheet also requires that each of the Executives enter into new employment agreements with the Company and that the Company adhere to certain corporate governance principles and processes in the future. Under the Settlement, Messrs. Fuchs and Smith and Dr. McMasters have the option to either (A) pay the Company \$25,000 cash or (B) forfeit options to purchase 50,000 shares of the Company's common stock. The Company, the Plaintiff and the Individual Defendants will release each other from any and all claims related to the Shareholder Derivative Lawsuit, as well as dismiss the Shareholder Derivative Lawsuit with prejudice upon the Company and the Individual Defendants entering into a formal settlement agreement.

The Settlement remains subject to approval by the Court after notice to the Company's shareholders and a settlement hearing. The hearing on the terms of the proposed settlement will be held to determine whether: (1) the terms and conditions of the

settlement provided for in the Settlement are fair, reasonable and adequate and in the best interest of the Company and its shareholders, (2) the judgment, as provided for in the Settlement, should be entered, and (3) the request of Plaintiff's counsel for an award of attorneys' fees and reimbursement of expenses should be granted.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II

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

Market Information and Holders

During 2012, quotations for our common stock were reported on the OTC Bulletin Board under the symbol "PVCT." In January 2013, our common stock ceased to be traded on the OTC Bulletin Board and is now trading on the OTC QB Marketplace operated by OTC Markets Group. Our trading symbol remains "PVCT." The following table sets forth the range of high and low sale prices of our common stock for the periods indicated since January 1, 2012:

	<u>High</u>	<u>Low</u>
2013		
First Quarter (January 1 to March 31)	\$0.88	\$0.55
Second Quarter (April 1 to June 30)	\$0.80	\$0.58
Third Quarter (July 1 to September 30)	\$1.14	\$0.58
Fourth Quarter (October 1 to December 31)	\$2.59	\$0.75
2012		
First Quarter (January 1 to March 31)	\$0.98	\$0.83
Second Quarter (April 1 to June 30)	\$0.93	\$0.80
Third Quarter (July 1 to September 30)	\$0.85	\$0.63
Fourth Quarter (October 1 to December 31)	\$0.67	\$0.52

The closing price for our common stock on March 7, 2014 was \$1.91. High and low sale price information was obtained from data provided by Yahoo! Inc.

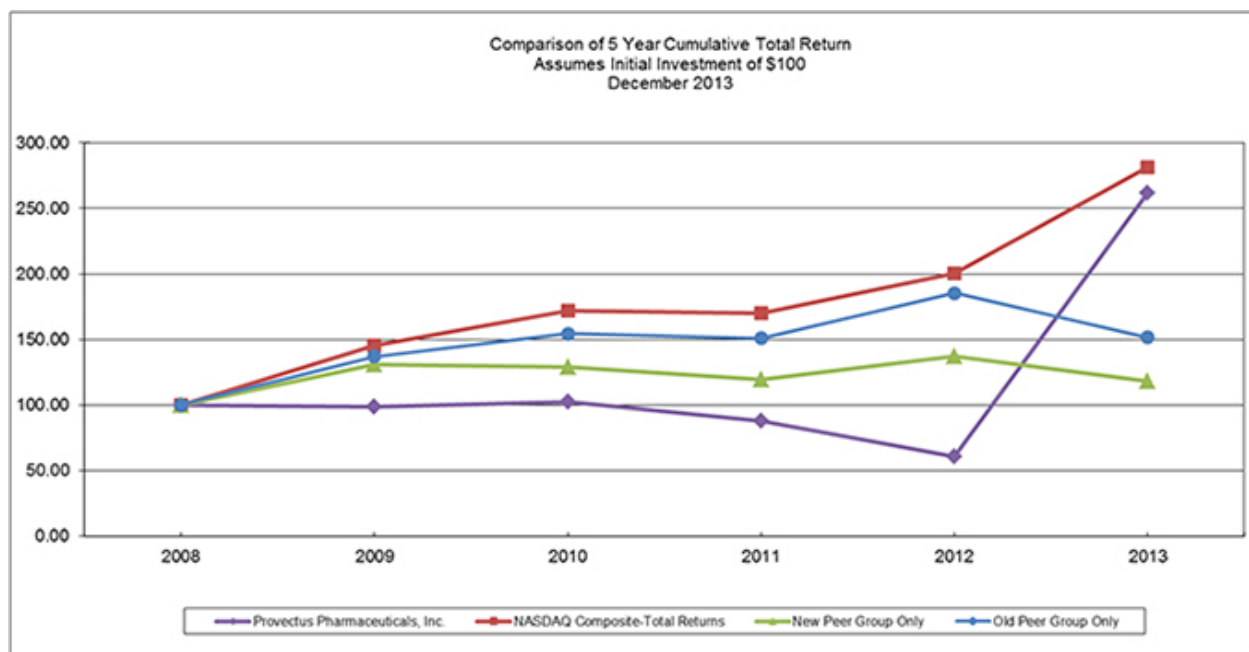
As of March 7, 2014, we had 2,809 shareholders of record of our common stock.

Dividend Policy

We have never declared or paid any cash dividends on our common stock. We currently plan to retain future earnings, if any, to finance the growth and development of our business and do not anticipate paying any cash dividends in the foreseeable future. We may incur indebtedness in the future which may prohibit or effectively restrict the payment of dividends, although we have no current plans to do so. Any future determination to pay cash dividends on our common stock will be at the discretion of our board of directors.

Stock Performance Graph

The following graph shows the changes, over the past five-year period, in the value of \$100 invested in Provectus common stock, the NASDAQ Composite Total Return Index and a Peer group of companies composed of development stage, biopharmaceutical companies that have a focus on developing oncology compounds. The graph assumes that all dividends are reinvested. We changed the companies comprising the peer group index this year from the peer group of companies used in our performance graph in our Annual Report on Form 10-K for the year ended December 31, 2012 (the "2012 10-K") to correspond with the peer group of companies identified by our compensation consultant in connection with our compensation committee's review of executive and director compensation during the year ended December 31, 2013. The graph below includes results for both the peer group used in the performance graph included in the 2012 10-K, as well as the new peer group.



	2008	2009	2010	2011	2012	2013
Provectus Biopharmaceuticals, Inc.	\$100.00	\$ 98.91	\$102.17	\$ 88.04	\$ 60.87	\$261.96
NASDAQ Composite-Total Returns	\$100.00	\$145.34	\$171.70	\$170.34	\$200.57	\$281.14
New Peer Group	\$100.00	\$131.01	\$128.95	\$119.37	\$136.92	\$118.17
Old Peer Group	\$100.00	\$136.96	\$154.39	\$150.83	\$185.41	\$151.54

Recent Sales of Unregistered Securities

During the three months ended March 31, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$48,750. During the three months ended March 31, 2013, the Company issued 1,924,973 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$409,640. During the three months ended March 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$4,045,510. The Company accepted subscriptions, in the aggregate, for 5,394,013 shares of common stock and five year warrants to purchase 7,277,264 shares of common stock. Investors received five year fully vested warrants to purchase up to 100% to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$522,640 and issued five year fully vested warrants to purchase 539,401 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc.

During the three months ended June 30, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$49,500. During the three months ended June 30, 2013, the Company issued 2,605,000 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$931,655. During the three months ended June 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,641,501. The Company accepted subscriptions, in the aggregate, for 3,522,001 shares of common stock and five year warrants to purchase 5,283,003 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of

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common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$314,173, accrued \$32,500 at June 30, 2013 which was paid in July 2013 and issued five year fully vested warrants to purchase 352,200 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc.

During the three months ended September 30, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$51,250. On July 22, 2013 the Company entered into a Purchase Agreement with Alpha Capital Anstalt. In consideration of entering into the Purchase Agreement and making the commitment to purchase the Purchase Shares, the Company issued 250,000 shares of the Company's common stock to Alpha Capital Anstalt. Consulting costs charged to operations were \$162,500. During the three months ended September 30, 2013, the Company issued 442,000 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$186,223. During the three months ended September 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$4,613,037. The Company accepted subscriptions, in the aggregate, for 6,150,718 shares of common stock and five year warrants to purchase 9,226,077 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$564,686 and issued five year fully vested warrants to purchase 615,072 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended September 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,687,500. The Company accepted subscriptions, in the aggregate, for 3,583,333 shares of common stock and five year warrants to purchase 5,375,000 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Maxim Group LLC served as placement agent for the offering. In connection with the offering, the Company paid \$349,375 and issued five year fully vested warrants to purchase 358,333 shares of common stock with an exercise price of \$1.00 to Maxim Group LLC, which represents 10% of the total number of shares of common stock sold to investors solicited by Maxim Group LLC.

During the three months ended December 31, 2013, the Company issued 275,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$214,000. During the three months ended December 31, 2013, the Company issued 209,473 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$259,306. During the three months ended December 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$5,820,588. The Company accepted subscriptions, in the aggregate, for 7,760,784 shares of common stock and five year warrants to purchase 11,641,176 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company plans to use the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$747,302 and issued five year fully vested warrants to purchase 776,078 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended December 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$1,312,500. The Company accepted subscriptions, in the aggregate, for 1,750,000 shares of common stock and five year warrants to purchase 2,625,000 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Maxim Group LLC served as placement agent for the offering. In connection with the offering, the Company paid \$170,625 and issued five year fully vested warrants to purchase 175,000 shares of common stock with an exercise price of \$1.00 to Maxim Group LLC, which represents 10% of the total number of shares of common stock sold to investors solicited by Maxim Group LLC.

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The issuances of the securities were exempt from the registration requirements of the Securities Act of 1933 by virtue of Section 4(2) and Rule 506 promulgated under Regulation D thereunder as transactions not involving a public offering.

The Company has used and intends to use the net proceeds of these issuances for working capital, FDA trials, securing licensing partnerships, and general corporate purposes.

For the issuance of securities to executives, see table labeled "Equity Compensation Plan Information" to be contained in the definitive Proxy Statement for our Annual Meeting of Stockholders to be held on June 16, 2014, which will be filed with the SEC pursuant to Regulation 14A under the Exchange Act, incorporated by reference in Part III, Item 12 of this Annual Report on Form 10-K.

ITEM 6. SELECTED FINANCIAL DATA.

The following table sets forth our selected consolidated financial data and has been derived from our audited consolidated financial statements. Consolidated balance sheets as of December 31, 2013 and 2012, as well as consolidated statements of operations for the years ended December 31, 2013, 2012, and 2011, and the report thereon are included elsewhere in this Annual Report on Form 10-K. The information below should be read in conjunction with our audited consolidated financial statements (and notes thereon) and "Management's Discussion and Analysis of Financial Condition and Results of Operations," included below in Item 7.

	Years ended December 31,				
	2013	2012	2011	2010	2009
(all amounts in thousands except per share data)					
Consolidated Statement of Operations Data:					
Revenues					
OTC product revenue	\$ —	\$ —	\$ —	\$ —	\$ —
Medical device revenue	—	—	—	—	—
Total revenues	—	—	—	—	—
Operating expenses					
Research and development	3,596	5,006	8,808	8,417	4,909
General and administrative	8,761	8,661	11,962	11,605	6,746
Amortization	671	671	671	671	671
Total operating loss	(13,028)	(14,338)	(21,441)	(20,693)	(12,326)
Other income, net	(14,670)	1,769	2,006	2,141	4
Net loss	(27,698)	(12,569)	(19,435)	(18,552)	(12,322)
Dividends on preferred stock	(1,188)	(183)	(247)	(10,408)	—
Net loss applicable to common stockholders	\$ (28,886)	\$ (12,752)	\$ (19,682)	\$ (28,960)	\$ (12,322)
Basic and diluted loss per common share	\$ (0.22)	\$ (0.11)	\$ (0.19)	\$ (0.37)	\$ (0.21)
Weighted average number of common shares outstanding – basic and diluted	132,001	112,987	105,725	78,818	59,797

	As of December 31,				
	2013	2012	2011	2010	2009
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	\$ 15,696	\$ 1,222	\$ 7,705	\$ 8,087	\$ 3,238
Patents, net	4,255	4,926	5,598	6,268	6,939
Other assets	57	56	47	48	57
Total assets	20,008	6,204	13,350	14,403	10,234
Current liabilities	513	511	263	1,350	827
Warrant liability	12,866	1,300	3,067	2,353	—
Preferred stock	—	2	4	5	—
Common stock	160	118	110	91	67
Additional paid-in capital	152,520	122,626	115,690	96,953	77,137
Accumulated deficit	(146,051)	(118,353)	(105,784)	(86,350)	(67,797)
Total stockholders' equity	6,629	4,393	10,020	10,699	9,407

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

The following discussion is intended to assist in the understanding and assessment of significant changes and trends related to our results of operations and our financial condition together with our consolidated subsidiaries. This discussion and analysis should be read in conjunction with the consolidated financial statements and notes thereto included in this Annual Report on Form 10-K. Historical results and percentage relationships set forth in the statement of operations, including trends which might appear, are not necessarily indicative of future operations.

Critical Accounting Policies

Long-Lived Assets

We review the carrying values of our long-lived assets for possible impairment whenever an event or change in circumstances indicates that the carrying amount of the assets may not be recoverable. Any long-lived assets held for disposal are reported at the lower of their carrying amounts or fair value less cost to sell. Management has determined there to be no impairment.

Patent Costs

Internal patent costs are expensed in the period incurred. Patents purchased are capitalized and amortized over their remaining lives, which range from 3-8 years. Annual amortization of the patents is expected to approximate \$671,000 for each of the next three years and \$659,000 in 2017 and 2018.

Stock-Based Compensation

The compensation cost relating to share-based payment transactions is measured based on the fair value of the equity or liability instruments issued and is expensed on a straight-line basis. For purposes of estimating the fair value of each stock option, on the date of grant, we utilize the Black-Scholes option-pricing model. The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected volatility factor of the market price of the Company's common stock (as determined by reviewing its historical public market closing prices). Because our employee stock options have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

Warrants to non-employees are generally vested and nonforfeitable upon the date of the grant. Accordingly fair value is determined on the grant date.

Research and Development

Research and development costs are charged to expense when incurred. An allocation of payroll expenses to research and development is made based on a percentage estimate of time spent. The research and development costs include the following: payroll, consulting and contract labor, lab supplies and pharmaceutical preparations, legal, insurance, rent and utilities, and depreciation.

Derivative Instruments

The warrants issued in conjunction with convertible preferred stock in March and April 2010 private placements include a reset provision if the Company issues additional warrants, in certain circumstances as defined in the agreement, below the exercise price of \$1.00. Effective January 1, 2009, the reset provision of these warrants preclude equity accounting treatment under ASC 815. Accordingly the Company is required to record the warrants as liabilities at their fair value upon issuance and remeasure the fair value at each period end with the change in fair value recorded in the statement of operations. When the warrants are exercised or cancelled, they are reclassified to equity. The Company uses the Monte-Carlo Simulation model to estimate the fair value of the warrants. Significant assumptions used at December 31, 2013 include a weighted average term of 1.2 years, a 5% probability that the warrant exercise price would be reset, a volatility range between 66.5% and 69.5% and a risk free interest rate range between 0.13% and 0.38%. Significant assumptions used at December 31, 2012 include a weighted average term of 2.2 years, a 5% probability that the warrant exercise price would be reset, a volatility range between 58.9% and 63.4% and a risk free interest rate range between 0.25% and 0.36%.

Additionally, the Series A and Series C Warrants issued in conjunction with the January 2011 registered direct public offering include a reset provision if the Company issues additional warrants, in certain circumstances as defined in the agreement, below the exercise price of \$1.12. At December 31, 2013, the warrant exercise price was reset to \$0.675. Significant assumptions used at December 31, 2013 include a weighted average term of 2.0 years, a 5% probability that the warrant exercise price would be further reset, volatility of 64.7% and a risk free interest rate range between 0.38% and 0.78%. Significant assumptions used at December 31, 2012 include a weighted average term of 3.0 years, a 5% probability that the warrant exercise price would be further reset, a volatility range between 58.9% and 63.4% and a risk free interest rate range between 0.25% and 0.36%.

On February 22, 2013, the Company entered into a Securities Purchase Agreement with certain accredited investors for the issuance and sale in a private placement of an aggregate of \$2,550,000 of Units at a purchase price of \$0.75 per Unit. Each Unit consists of one share of Series A 8% Convertible Preferred Stock, par value \$.001 per share, and a warrant to purchase one and one-quarter shares of the Company's common stock, par value \$.001 per share (subject to adjustment) at an exercise price of \$1.00 per whole share (subject to adjustment). The total Series A 8% Convertible Preferred Stock issued was 3,400,001 shares, and the total warrants were 4,250,000. The Company used the net proceeds of the private placement for working capital, FDA trials, securing licensing partnerships, and general corporate purposes.

The Company determined that warrants issued in February, 2013 with the Series A 8% Convertible Preferred Stock should be classified as liabilities in accordance with ASC 815 because the warrants in question contain exercise price reset features that require the exercise price of the warrants be adjusted if the Company issues certain other equity related instruments at a lower price per share. The preferred stock was determined to have characteristics more akin to equity than debt. As a result, the conversion option was determined to be clearly and closely related to the preferred stock and therefore does not need to be bifurcated and classified as a liability. Significant assumptions used at December 31, 2013 include a weighted average term of 4.1 years, a 5% probability that the warrant exercise price would be reset, volatility of 67.2% and a risk free interest rate range between 0.78% and 1.78%.

Fair Value of Financial Instruments

The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents, and accounts payable approximate their fair value because of the short-term nature of these items. Cash equivalents are measured on a recurring basis within the fair value hierarchy using Level 1 inputs.

The fair value of derivative instruments is determined by management with the assistance of an independent third party valuation specialist. Certain derivatives with limited market activity are valued using externally developed models that consider unobservable market parameters.

Contractual Obligations—Leases

We lease office and laboratory space in Knoxville, Tennessee, on a month-to-month basis.

Capital Structure

Our ability to continue as a going concern is reasonably assured due to our financing completed during 2013 and thus far from warrant exercises in 2014. Given our current rate of expenditures and our ability to curtail or defer certain controllable expenditures, we do not need to raise additional capital to further develop PV-10 on our own to treat recurrent melanoma, HCC, recurrent breast cancer, pancreatic cancer and other indications because we plan to license PH-10 for psoriasis and other related indications described as inflammatory dermatoses, strategically monetize PV-10 through appropriate regional license transactions, and also complete the spin-out of Pure-ific Corporation and the other non-core subsidiaries. Additionally, our existing funds are sufficient to meet minimal necessary expenses until well into 2015.

We believe our continued development of PV-10 with existing funds will yield proof-of-concept evidence to support expected best-in-class clinical benefit to treat a wide range of solid tumor recurrences due to its unique immuno-chemoablation mechanism of action. Likewise, we believe our development of PH-10 with existing funds will yield proof-of-concept evidence to support expected best-in-class clinical benefit to treat a wide range of inflammatory dermatoses due to its unique non-steroidal anti-inflammatory mechanism of action.

Our cash and cash equivalents were \$15,696,243 at December 31, 2013, compared with \$1,221,701 at December 31, 2012. The increase of approximately \$14.5 million was due primarily to a substantial increase in the sales of common stock and warrants as well as substantial exercises of warrants coupled with approximately \$1.4 million less cash that was used in operating activities in 2013 versus 2012. Additionally thus far in 2014, the Company received approximately \$2.7 million in cash due to additional warrant exercises and \$539,000 in cash due to stock option exercises.

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By managing variable cash expenses due to minimal fixed costs, we believe our cash and cash equivalents on hand at December 31, 2013, together with approximately \$3.2 million received thus far in 2014 due to exercises of warrants and stock options, will be sufficient to meet our current and planned operating needs until well into 2015 without consideration being given to additional cash inflows that might occur from the exercise of existing warrants or future sales of equity securities, although we may, in our sole discretion, direct Alpha Capital Anstalt ("Investor") to purchase up to \$30,000,000 of our common stock per an existing agreement with Investor.

We are seeking to improve our cash flow through both the licensure of PH-10 on the basis of our Phase 2 atopic dermatitis and psoriasis results, and primarily the geographic licensure of PV-10 on the basis of our Phase 2 recurrent melanoma and Phase 1 liver results in certain areas of the world, as well as pursuing a strategic investment strategy, including equity sales to potential pharmaceutical and/or biotech partners. In addition, the data now available and forthcoming from Moffitt Cancer Center in Tampa, Florida has been and is expected to be particularly helpful in supporting our development plans with both the FDA and prospective partners. The geographic areas of interest for PV-10 principally include China, India, Japan and Middle East and North Africa (MENA). We are encouraged by the interest in both PV-10 and PH-10 on a geographic basis and are continuing discussions with potential partners.

We are also considering the global licensure of PV-10 as well since it has come to our attention that this is of interest to potential partners. We have provided data on a confidential basis to both potential global and geographic partners for both PV-10 and PH-10 via a secure electronic data room that is monitored 24 hours a day, seven days a week and houses formal data submissions to the FDA as well as various corporate governance related documents.

We also expect to continue with the majority stake asset sale and licensure of our non-core assets. However, the primary objective of the Company is to strategically monetize the core value of PV-10 and PH-10 through various transactions, leveraging value creation up to and including an appropriate merger and acquisition transaction that includes upfront cash and acquirer stock in exchange for Company ownership as well as a contingency value right (CVR) to facilitate potential upside post-acquisition. We believe regulatory clarity, including one or more breakthrough therapy designations, is determined by specifying the expected approval pathways of both PV-10 and PH-10. This may include the potential for breakthrough therapy designation for PV-10 to treat locally advanced recurrent melanoma and an accelerated approval path for PV-10 to treat this indication. Such clarity will help facilitate transactions with potential partners. Additionally, the existing and forthcoming mechanism of action related clinical and nonclinical data for both PV-10 and PH-10 will further aid in both regulatory clarity and transactions with potential partners.

However, we cannot assure you that we will be successful in either licensing of PH-10 or PV-10, any equity transaction, or selling a majority stake of the OTC and other non-core assets via a spin-out transaction and licensing our existing non-core products. Moreover, even if we are successful in improving our current cash flow position, we nonetheless plan to seek additional funds to meet our long-term requirements in 2014 and beyond. We anticipate that these funds will otherwise come from the proceeds of private placements, the exercise of existing warrants outstanding, or public offerings of debt or equity securities. While we believe that we have a reasonable basis for our expectation that we will be able to raise additional funds, we cannot assure you that we will be able to complete additional financing in a timely manner. In addition, any such financing may result in significant dilution to shareholders.

Plan of Operation

We have implemented our integrated business plan, including execution of the current and next phases in clinical development of our pharmaceutical products and continued execution of research programs for new research initiatives.

Our current plans include continuing to operate with our four employees during the immediate future, as well as four primary consultants and various vendor relationships, and anticipate adding additional personnel or contract research organizations if necessary in the next 12 months. Our current plans also include minimal purchases of new property, plant and equipment, and increased research and development for additional clinical trials.

We believe that our prescription drug candidates PV-10 and PH-10 provide us with two products in multiple indications, which have been shown in clinical trials to be safe to treat serious cancers and diseases of the skin, and important immunologic data has been corroborated and characterized by institutions such as Moffitt Cancer Center in Tampa, Florida and another leading research facility. We continue to develop clinical trials for these products to show their safety and efficacy, which we believe will continue to be shown based on data in previous studies, and which will result in one or more

license transactions with pharmaceutical and or biotech partners. Together with our non-core technologies, which we intend to sell or license in the future, we believe this combination represents the foundation for maximizing shareholder value this year and beyond.

Comparison of the Years Ended December 31, 2013 and 2012

Revenues

We had no revenue during the years ended 2013 and 2012.

Research and development

Research and development costs totaling \$3,595,555 for 2013 included payroll of \$1,459,057, consulting and contract labor of \$1,317,472, lab supplies and pharmaceutical preparations of \$310,160, legal of \$262,720, insurance of \$161,268, rent and utilities of \$78,512, and depreciation expense of \$6,366. Research and development costs totaling \$5,005,459 for 2012 included payroll of \$2,536,818, consulting and contract labor of \$2,008,270, lab supplies and pharmaceutical preparations of \$47,808, legal of \$231,430, insurance of \$97,728, rent and utilities of \$77,238, and depreciation expense of \$6,167.

The decrease in payroll in 2013 over 2012 is primarily the result of the termination of bonuses and reduced stock-based compensation expense from stock options. The reduction in payroll represents most of the decrease in research and development expenses in 2013 versus 2012. Additionally, consulting and contract labor decreased in 2013 over 2012 due to reduction in warrants for services in 2013 versus 2012.

The table below summarizes our projects, the actual costs for each period shown, and the total costs incurred to date.

Projects	Actual Cost for 2013	Actual Cost for 2012	Total Costs Incurred To Date
Melanoma	\$ -0-	\$ -0-	\$ 3,018,000
Breast/Other	\$ -0-	\$ -0-	\$ 675,000
Liver	\$ -0-	\$ -0-	\$ 616,000
Psoriasis/Atopic Dermatitis	\$ -0-	\$ -0-	\$ 1,678,000
Payroll	\$ 1,459,000	\$ 2,537,000	
Indirect costs	\$ 2,137,000	\$ 2,469,000	
Totals	\$ 3,596,000	\$ 5,006,000	

General and administrative

General and administrative expenses increased by \$100,224 for 2013 to \$8,761,264 from \$8,661,040 in 2012. The increase is primarily due to an increase in investor relations expense offset by the termination of bonuses and reduced stock-based compensation expense from stock options.

Investment income

Investment income is immaterial for all periods presented.

Change in fair value of warrant liability

Change in fair value of warrant liability increased by \$16,439,048 to a loss of \$14,671,130 in 2013 from a gain of \$1,767,918 in 2012. This activity results from accounting for the warrant liability described in Footnotes 4(f), 4(i), 4(j) and 10 to the financial statements.

Cash Flow

Our cash and cash equivalents were \$15,696,243 at December 31, 2013, compared with \$1,221,701 at December 31, 2012. The increase of approximately \$14.5 million was due primarily to a substantial increase in the sales of common and preferred stock and warrants as well as substantial exercises of warrants coupled with approximately \$1.4 million less cash that was used in operating activities in 2013 versus 2012. At our current cash expenditure rate, our cash and cash equivalents will be sufficient to meet our current and planned needs until well into 2015 without additional cash inflows from the exercise of existing warrants, stock options, or sales of equity securities. We have enough cash on hand to fund operations until well into 2015 with the cash on hand at December 31, 2013 and with the additional cash inflows thus far in 2014, including \$2,672,363 received due to warrant exercises and \$538,586 received due to stock option exercises.

Comparison of the Years Ended December 31, 2012 and 2011

Revenues

We had no revenue during the years ended 2012 and 2011.

Research and development

Research and development costs totaling \$5,005,459 for 2012 included payroll of \$2,536,818, consulting and contract labor of \$2,008,270, lab supplies and pharmaceutical preparations of \$47,808, legal of \$231,430, insurance of \$97,728, rent and utilities of \$77,238, and depreciation expense of \$6,167. Research and development costs totaling \$8,807,896 for 2011 included payroll of \$6,182,147, consulting and contract labor of \$2,238,765, lab supplies and pharmaceutical preparations of \$57,467, legal of \$161,068, insurance of \$92,859, rent and utilities of \$68,234, and depreciation expense of \$7,356.

The decrease in payroll in 2012 over 2011 is primarily the result of the termination of bonuses and no employee stock-based compensation expense from stock options. The reduction in payroll represents virtually all of the decrease in research and development expenses in 2012 versus 2011.

The table below summarizes our projects, the actual costs for each period shown, and the total costs incurred to date.

Projects	Actual Cost for 2012	Actual Cost for 2011	Total Costs Incurred To Date
Melanoma	\$ -0-	\$ -0-	\$ 3,018,000
Breast/Other	\$ -0-	\$ -0-	\$ 675,000
Liver	\$ -0-	\$ -0-	\$ 616,000
Psoriasis/Atopic Dermatitis	\$ -0-	\$ -0-	\$ 1,678,000
Payroll	\$ 2,537,000	\$ 6,182,000	
Indirect costs	\$ 2,469,000	\$ 2,626,000	
Totals	\$ 5,006,000	\$ 8,808,000	

General and administrative

General and administrative expenses decreased by \$3,300,808 for 2012 to \$8,661,040 from \$11,961,848 in 2011. The decrease is primarily due to the result of the termination of bonuses and no employee stock-based compensation expense from stock options.

Investment income

Investment income is immaterial for all periods presented.

Gain on change in fair value of warrant liability

Gain on change in fair value of warrant liability decreased by \$236,720 in 2012 to \$1,767,918 from \$2,004,638 in 2011. This activity results from accounting for the warrant liability described in Footnotes 4(f), 4(i) and 10 to the financial statements.

Cash Flow

Our cash and cash equivalents were \$1,221,701 at December 31, 2012, compared with \$7,705,773 at December 31, 2011.

Capital Resources

As noted above, our present cash and cash equivalents are currently sufficient to meet our short-term operating needs. Excess cash will be used to finance any additional phases in clinical development of our pharmaceutical products that we may decide to undertake ourselves versus with a partner. We anticipate that any required funds for our operating and development needs in 2015 and beyond may come from a partnership agreement or from the proceeds of public or private sales of equity or debt securities or the exercise of existing warrants and stock options outstanding. While we believe that we have a reasonable basis for our expectation that we will be able to raise additional funds if necessary, we cannot assure you that we will be able to complete additional financing in a timely manner. In addition, any such financing may result in significant dilution to shareholders.

Recent Accounting Pronouncements

None.

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

We had no holdings of financial or commodity instruments as of December 31, 2013, other than cash and cash equivalents, short-term deposits, money market funds and interest bearing investments in U.S. governmental debt securities. We have accounted for certain warrants issued in March and April 2010, January 2011 and February 2013 as liabilities at their fair value upon issuance, which are remeasured at each period end with the change in fair value recorded in the statement of operations. See note 4 of the consolidated financial statements contained in this Annual Report on Form 10-K.

All of our business is transacted in U.S. dollars and, accordingly, foreign exchange rate fluctuations have not had a significant impact on us, and they are not expected to have a significant impact on us in the foreseeable future.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The financial statements required by this Item are included as a separate section of this report commencing on page F-1.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the Act)) were effective as of December 31, 2013, based on the evaluation of these controls and procedures required by Rule 13a-15(b) or 15d-15(b) of the Act.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system was designed to provide reasonable assurance regarding the preparation and fair presentation of published financial statements in accordance with generally accepted accounting principles. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation in accordance with generally accepted accounting principles. Management conducted an assessment of our internal control over financial reporting as of December 31, 2013 using the framework specified in *Internal Control – Integrated Framework (1992)*, published by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its assessment, the Chief Executive Officer and Chief Financial Officer concluded that our internal control over financial reporting at December 31, 2013 was effective.

Our independent registered public accounting firm, BDO USA, LLP, assessed the effectiveness of the Company's internal control over financial reporting. BDO USA, LLP has issued an attestation report on our internal control over financial reporting as of December 31, 2013, which is set forth below.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the fourth quarter of 2013 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
Provectus Biopharmaceuticals, Inc.
Knoxville, Tennessee

We have audited Provectus Biopharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2013, based on criteria established in *Internal Control – Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Provectus Biopharmaceuticals, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Item 9A, Management's Report on Internal Control Over Financial Reporting". Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

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

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

Because of 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 the policies or procedures may deteriorate.

In our opinion, Provectus Biopharmaceuticals, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Provectus Biopharmaceuticals, Inc., a development stage company, as of December 31, 2013 and 2012, and the related consolidated statements of operations, stockholders' equity, and cash flows for the period from January 17, 2002 (inception) to December 31, 2013 and for each of the three years in the period ended December 31, 2013 and our report dated March 13, 2014 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Chicago, Illinois
March 13, 2014

ITEM 9B. OTHER INFORMATION.

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The information called for by this item is incorporated herein by reference to the definitive Proxy Statement for our Annual Meeting of Stockholders to be held on June 16, 2014, which will be filed with the SEC pursuant to Regulation 14A under the Exchange Act.

ITEM 11. EXECUTIVE COMPENSATION.

The information called for by this item is incorporated herein by reference to the definitive Proxy Statement for our Annual Meeting of Stockholders to be held on June 16, 2014, which will be filed with the SEC pursuant to Regulation 14A under the Exchange Act.

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

The information called for by this item is incorporated herein by reference to the definitive Proxy Statement for our Annual Meeting of Stockholders to be held on June 16, 2014, which will be filed with the SEC pursuant to Regulation 14A under the Exchange Act.

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

The information called for by this item is incorporated herein by reference to the definitive Proxy Statement for our Annual Meeting of Stockholders to be held on June 16, 2014, which will be filed with the SEC pursuant to Regulation 14A under the Exchange Act.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The information called for by this item is incorporated herein by reference to the definitive Proxy Statement for our Annual Meeting of Stockholders to be held on June 16, 2014, which will be filed with the SEC pursuant to Regulation 14A under the Exchange Act.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

Financial Statements

See Index to Consolidated Financial Statements in "Financial and Supplementary Data."

Financial Statement Schedules

None

Exhibits

Exhibits required by Item 601 of Regulation S-K are incorporated herein by reference and are listed on the attached Exhibit Index, which begins on page X-1 of our Annual Report on Form 10-K.

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.

March 13, 2014

PROVECTUS BIOPHARMACEUTICALS, INC.

By: /s/ H. Craig Dees

H. Craig Dees, Ph.D.

Chief Executive Officer and Chairman of the Board

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 capacity and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ H. Craig Dees</u> H. Craig Dees, Ph.D.	Chief Executive Officer (principal executive officer) and Chairman of the Board	March 13, 2014
<u>/s/ Peter R. Culpepper</u> Peter R. Culpepper	Chief Financial Officer (principal financial officer), Chief Operating Officer and Chief Accounting Officer	March 13, 2014
<u>/s/ Timothy C. Scott</u> Timothy C. Scott	President and Director	March 13, 2014
<u>/s/ Jan Koe</u> Jan Koe	Director	March 13, 2014
<u>/s/ Kelly M. McMasters</u> Kelly M. McMasters, M.D., Ph.D.	Director	March 13, 2014
<u>/s/ Alfred E. Smith, IV</u> Alfred E. Smith, IV	Director	March 13, 2014

INDEX TO FINANCIAL STATEMENTS

The following financial statements are included in Part II, Item 8:

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Consolidated Balance Sheets as of December 31, 2013 and 2012	F-2
Consolidated Statements of Operations for the years December 31, 2013, 2012 and 2011, and cumulative amounts from January 17, 2002 (Inception) through December 31, 2013	F-3
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2013, 2012 and 2011, and cumulative amounts from January 17, 2002 (Inception) through December 31, 2013	F-4
Consolidated Statements of Cash Flows for the years ended December 31, 2013, 2012 and 2011, and cumulative amounts from January 17, 2002 (Inception) through December 31, 2013	F-8
Notes to Consolidated Financial Statements	F-9

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
Provectus Biopharmaceuticals, Inc.
Knoxville, Tennessee

We have audited the accompanying consolidated balance sheets of Provectus Biopharmaceuticals, Inc., a development stage company, as of December 31, 2013 and 2012 and the related consolidated statements of operations, stockholders' equity, and cash flows for the period from January 17, 2002 (inception) to December 31, 2013 and for each of the three years in the period ended December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. 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 presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Provectus Biopharmaceuticals, Inc. at December 31, 2013 and 2012, and the results of its operations and its cash flows for the period from January 17, 2002 (inception) to December 31, 2013 and for each of the three years in the period ended December 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Provectus Biopharmaceuticals, Inc.'s internal control over financial reporting as of December 31, 2013, based on criteria established in *Internal Control – Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 13, 2014 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Chicago, Illinois
March 13, 2014

PROVECTUS BIOPHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED BALANCE SHEETS

	December 31, 2013	December 31, 2012
Assets		
Current Assets		
Cash and cash equivalents	\$ 15,696,243	\$ 1,221,701
Equipment and furnishings, less accumulated depreciation of \$429,331 and \$422,965, respectively	30,113	29,829
Patents, net of amortization of \$7,460,617 and \$6,789,497, respectively	4,254,828	4,925,948
Other assets	27,000	27,000
	<u>\$ 20,008,184</u>	<u>\$ 6,204,478</u>
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$ 348,869	\$ 243,435
Accrued consulting expense	61,282	61,283
Other accrued expenses	102,795	206,706
Total Current Liabilities	<u>512,946</u>	<u>511,424</u>
Long-Term Liability		
Warrant liability	12,866,572	1,299,570
Total Liabilities	<u>13,379,518</u>	<u>1,810,994</u>
Stockholders' Equity		
Preferred stock; par value \$.001 per share; 25,000,000 shares authorized, including 8% convertible preferred stock, 0 and 2,478,185 shares issued and outstanding, respectively, liquidation preference \$0.75 (in aggregate \$0 and \$1,896,117, respectively); Series A 8% convertible preferred stock, 33,334 shares issued and outstanding in 2013, liquidation preference \$0.75 (in aggregate \$25,001)	33	2,478
Common stock; par value \$.001 per share; 250,000,000 shares authorized; 159,751,724 and 118,427,925 shares issued and outstanding, respectively	159,752	118,428
Paid-in capital	152,519,701	122,625,654
Deficit accumulated during the development stage	(146,050,820)	(118,353,076)
Total Stockholders' Equity	<u>6,628,666</u>	<u>4,393,484</u>
	<u>\$ 20,008,184</u>	<u>\$ 6,204,478</u>

See accompanying notes to consolidated financial statements.

PROVECTUS BIOPHARMACEUTICALS, INC.
(A Development-Stage Company)
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31, 2013	Year Ended December 31, 2012	Year Ended December 31, 2011	Cumulative Amounts from January 17, 2002 (Inception) Through December 31, 2013
Revenues				
OTC product revenue	\$ —	\$ —	\$ —	\$ 25,648
Medical device revenue	—	—	—	14,109
Total revenues	—	—	—	39,757
Cost of sales	—	—	—	15,216
Gross profit	—	—	—	24,541
Operating expenses				
Research and development	3,595,555	5,005,459	8,807,896	46,794,408
General and administrative	8,761,264	8,661,040	11,961,848	74,947,153
Amortization	671,120	671,120	671,120	7,460,617
Total operating loss	(13,027,939)	(14,337,619)	(21,440,864)	(129,077,637)
Gain on sale of fixed assets	—	—	—	55,075
Loss on extinguishment of debt	—	—	—	(825,867)
Investment income	1,325	1,347	1,527	654,542
Gain (loss) on change in fair value of warrant liability	(14,671,130)	1,767,918	2,004,638	(8,758,929)
Net interest expense	—	—	—	(8,098,004)
Net loss	\$ (27,697,744)	\$ (12,568,354)	\$ (19,434,699)	\$ (146,050,820)
Dividends on preferred stock	(1,188,648)	(183,187)	(247,008)	(12,026,710)
Net loss applicable to common shareholders	\$ (28,886,392)	\$ (12,751,541)	\$ (19,681,707)	\$ (158,077,530)
Basic and diluted loss per common share	\$ (0.22)	\$ (0.11)	\$ (0.19)	
Weighted average number of common shares outstanding – basic and diluted	132,000,796	112,986,636	105,724,605	

See accompanying notes to consolidated financial statements.

PROVECTUS BIOPHARMACEUTICALS, INC.
(A Development-Stage Company)
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Preferred Stock		Common Stock			Accumulated Deficit	Total
	Number of Shares	Par Value	Number of Shares	Par Value	Paid in capital		
Balance, at January 17, 2002	—	\$ —	—	\$ —	\$ —	\$ —	\$ —
Issuance to founding shareholders	—	—	6,000,000	6,000	(6,000)	—	—
Sale of stock	—	—	50,000	50	24,950	—	25,000
Issuance of stock to employees	—	—	510,000	510	931,490	—	932,000
Issuance of stock for services	—	—	120,000	120	359,880	—	360,000
Net loss for the period from January 17, 2002 (inception) to April 23, 2002 (date of reverse merger)	—	—	—	—	—	(1,316,198)	(1,316,198)
Balance, at April 23, 2002	—	\$ —	6,680,000	\$ 6,680	\$ 1,310,320	\$ (1,316,198)	\$ 802
Shares issued in reverse merger	—	—	265,763	266	(3,911)	—	(3,645)
Issuance of stock for services	—	—	1,900,000	1,900	5,142,100	—	5,144,000
Purchase and retirement of stock	—	—	(400,000)	(400)	(47,600)	—	(48,000)
Stock issued for acquisition of Valley Pharmaceuticals	—	—	500,007	500	12,225,820	—	12,226,320
Exercise of warrants	—	—	452,919	453	—	—	453
Warrants issued in connection with convertible debt	—	—	—	—	126,587	—	126,587
Stock and warrants issued for acquisition of Pure-ific	—	—	25,000	25	26,975	—	27,000
Net loss for the period from April 23, 2002 (date of reverse merger) to December 31, 2002	—	—	—	—	—	(5,749,937)	(5,749,937)
Balance, at December 31, 2002	—	\$ —	9,423,689	\$ 9,424	\$18,780,291	\$ (7,066,135)	\$11,723,580
Issuance of stock for services	—	—	764,000	764	239,036	—	239,800
Issuance of warrants for services	—	—	—	—	145,479	—	145,479
Stock to be issued for services	—	—	—	—	281,500	—	281,500
Employee compensation from stock options	—	—	—	—	34,659	—	34,659
Issuance of stock pursuant to Regulation S	—	—	679,820	680	379,667	—	380,347
Beneficial conversion related to convertible debt	—	—	—	—	601,000	—	601,000
Net loss for the year ended December 31, 2003	—	—	—	—	—	(3,155,313)	(3,155,313)
Balance, at December 31, 2003	—	\$ —	10,867,509	\$10,868	\$20,461,632	\$ (10,221,448)	\$10,251,052
Issuance of stock for services	—	—	733,872	734	449,190	—	449,923
Issuance of warrants for services	—	—	—	—	495,480	—	495,480
Exercise of warrants	—	—	132,608	133	4,867	—	5,000
Employee compensation from stock options	—	—	—	—	15,612	—	15,612
Issuance of stock pursuant to Regulation S	—	—	2,469,723	2,469	790,668	—	793,137
Issuance of stock and warrants pursuant to Regulation D	—	—	1,930,164	1,930	1,286,930	—	1,288,861
Beneficial conversion related to convertible debt	—	—	—	—	360,256	—	360,256
Issuance of convertible debt with warrants	—	—	—	—	105,250	—	105,250

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Repurchase of beneficial conversion feature	—	—	—	—	(258,345)	—	(258,345)
Net loss for the year ended December 31, 2004	—	—	—	—	—	(4,344,525)	(4,344,525)
Balance, at December 31, 2004	—	\$ —	16,133,876	\$16,134	\$23,711,540	\$(14,565,973)	\$ 9,161,701
Issuance of stock for services	—	—	226,733	227	152,058	—	152,285
Issuance of stock for interest payable	—	—	263,721	264	195,767	—	196,031
Issuance of warrants for services	—	—	—	—	1,534,405	—	1,534,405
Issuance of warrants for contractual obligations	—	—	—	—	985,010	—	985,010
Exercise of warrants and stock options	—	—	1,571,849	1,572	1,438,223	—	1,439,795
Employee compensation from stock options	—	—	—	—	15,752	—	15,752
Issuance of stock and warrants pursuant to Regulation D	—	—	6,221,257	6,221	6,506,955	—	6,513,176
Debt conversion to common stock	—	—	3,405,541	3,405	3,045,957	—	3,049,362
Issuance of warrants with convertible debt	—	—	—	—	1,574,900	—	1,574,900
Beneficial conversion related to convertible debt	—	—	—	—	1,633,176	—	1,633,176
Beneficial conversion related to interest expense	—	—	—	—	39,529	—	39,529
Repurchase of beneficial conversion feature	—	—	—	—	(144,128)	—	(144,128)
Net loss for the year ended 2005	—	—	—	—	—	(11,763,853)	(11,763,853)
Balance, at December 31, 2005	—	\$ —	27,822,977	\$27,823	\$40,689,144	\$(26,329,826)	\$ 14,387,141
Issuance of stock for services	—	—	719,246	719	676,024	—	676,743
Issuance of stock for interest payable	—	—	194,327	195	183,401	—	183,596
Issuance of warrants for services	—	—	—	—	370,023	—	370,023
Exercise of warrants and stock options	—	—	1,245,809	1,246	1,188,570	—	1,189,816
Employee compensation from stock options	—	—	—	—	1,862,456	—	1,862,456
Issuance of stock and warrants pursuant to Regulation D	—	—	10,092,495	10,092	4,120,329	—	4,130,421
Debt conversion to common stock	—	—	2,377,512	2,377	1,573,959	—	1,576,336
Beneficial conversion related to interest expense	—	—	—	—	16,447	—	16,447
Net loss for the year ended 2006	—	—	—	—	—	(8,870,579)	(8,870,579)
Balance, at December 31, 2006	—	\$ —	42,452,366	\$42,452	\$50,680,353	\$(35,200,405)	\$ 15,522,400
Issuance of stock for services	—	—	150,000	150	298,800	—	298,950
Issuance of stock for interest payable	—	—	1,141	1	1,257	—	1,258
Issuance of warrants for services	—	—	—	—	472,635	—	472,635
Exercise of warrants and stock options	—	—	3,928,957	3,929	3,981,712	—	3,985,641
Employee compensation from stock options	—	—	—	—	2,340,619	—	2,340,619
Issuance of stock and warrants pursuant to Regulation D	—	—	2,376,817	2,377	1,845,761	—	1,848,138
Debt conversion to common stock	—	—	490,000	490	367,010	—	367,500
Net loss for the year ended 2007	—	—	—	—	—	(10,005,631)	(10,005,631)
Balance, at December 31, 2007	—	\$ —	49,399,281	\$49,399	\$59,988,147	\$(45,206,036)	\$ 14,831,510
Issuance of stock for services	—	—	350,000	350	389,650	—	390,000
Issuance of warrants for services	—	—	—	—	517,820	—	517,820

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Exercise of warrants and stock options	—	—	3,267,795	3,268	2,636,443	—	2,639,711
Employee compensation from stock options	—	—	—	—	1,946,066	—	1,946,066
Net loss for the year ended 2008	—	—	—	—	—	(10,269,571)	(10,269,571)
Balance, at December 31, 2008	—	\$ —	53,017,076	\$ 53,017	\$ 65,478,126	\$ (55,475,607)	\$ 10,055,536
Issuance of stock for services	—	—	796,012	796	694,204	—	695,000
Issuance of warrants for services	—	—	—	—	1,064,210	—	1,064,210
Exercise of warrants and stock options	—	—	3,480,485	3,480	2,520,973	—	2,524,453
Employee compensation from stock options	—	—	—	—	870,937	—	870,937
Issuance of stock and warrants pursuant to Regulation D			10,116,653	10,117	6,508,571	—	6,518,688
Net loss for the year ended 2009	—	—	—	—	—	(12,322,314)	(12,322,314)
Balance, at December 31, 2009	—	\$ —	67,410,226	\$ 67,410	\$ 77,137,021	\$ (67,797,921)	\$ 9,406,510
Issuance of stock for services	—	—	776,250	776	855,837	—	856,613
Issuance of warrants for services	—	—	—	—	1,141,593	—	1,141,593
Exercise of warrants and stock options	—	—	3,491,014	3,491	3,100,189	—	3,103,680
Issuance of common stock pursuant to Regulation S	—	—	559,000	559	418,691	—	419,250
Issuance of common stock and warrants pursuant to Regulation D	—	—	11,168,067	11,169	6,335,820	—	6,346,989
Issuance of preferred stock and warrants pursuant to Regulation D	13,283,324	13,283	—	—	4,204,107	—	4,217,390
Preferred stock conversions into common stock	(7,893,326)	(7,893)	7,893,326	7,893	—	—	—
Employee compensation from stock options	—	—	—	—	3,759,650	—	3,759,650
Net loss for the year ended 2010	—	—	—	—	—	(18,552,102)	(18,552,102)
Balance, at December 31, 2010	5,389,998	\$ 5,390	91,297,883	\$ 91,298	\$ 96,952,908	\$ (86,350,023)	\$ 10,699,573
Issuance of stock for services	—	—	350,000	350	332,400	—	332,750
Issuance of warrants for services	—	—	—	—	945,116	—	945,116
Exercise of warrants and stock options	—	—	7,185,522	7,185	6,616,126	—	6,623,311
Issuance of common stock and warrants pursuant to Regulation D	—	—	9,905,062	9,905	7,031,334	—	7,041,239
Sale of non-controlling interest in Pure-ific Corporation and warrants	—	—	—	—	443,500	—	443,500
Preferred stock conversions into common stock	(1,858,333)	(1,859)	1,858,331	1,859	—	—	—
Employee compensation from stock options	—	—	—	—	3,368,950	—	3,368,950
Net loss for the year ended 2011	—	—	—	—	—	(19,434,699)	(19,434,699)
Balance, at December 31, 2011	3,531,665	\$ 3,531	110,596,798	\$ 110,597	\$ 115,690,334	\$ (105,784,722)	\$ 10,019,740
Issuance of stock for services	—	—	550,000	550	455,950	—	456,500
Issuance of warrants for services	—	—	—	—	1,512,026	—	1,512,026
Issuance of common stock and warrants pursuant to Regulation D	—	—	6,227,647	6,228	4,784,316	—	4,790,544

Preferred stock conversions into common stock	(1,053,480)	(1,053)	1,053,480	1,053	—	—	—
Employee compensation from stock options	—	—	—	—	183,028	—	183,028
Net loss for the year ended 2012	—	—	—	—	—	(12,568,354)	(12,568,354)
Balance, at December 31, 2012	2,478,185	\$ 2,478	118,427,925	\$118,428	\$122,625,654	\$(118,353,076)	\$ 4,393,484
Issuance of stock for services	—	—	750,000	750	525,250	—	526,000
Issuance of warrants for services	—	—	—	—	1,786,824	—	1,786,824
Exercise of warrants and stock options	—	—	6,319,594	6,320	7,829,150	—	7,835,470
Issuance of common stock and warrants pursuant to Regulation D	—	—	28,409,353	28,409	18,390,926	—	18,419,335

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Issuance of preferred stock and warrants pursuant to Regulation D	3,400,001	3,400	—	—	1,248,650	—	1,252,050
Preferred stock conversions into common stock	(5,844,852)	(5,845)	5,844,852	5,845	—	—	—
Dividends on preferred stock	—	—	—	—	(29,063)	—	(29,063)
Employee compensation from stock options	—	—	—	—	142,310	—	142,310
Net loss for the year ended 2013	—	—	—	—	—	(27,697,744)	(27,697,744)
Balance, at December 31, 2013	<u>33,334</u>	<u>\$ 33</u>	<u>159,751,724</u>	<u>\$159,752</u>	<u>\$152,519,701</u>	<u>\$(146,050,820)</u>	<u>\$ 6,628,666</u>

See accompanying notes to consolidated financial statements.

PROVECTUS BIOPHARMACEUTICALS, INC.
(A Development-Stage Company)
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31, 2013	Year Ended December 31, 2012	Year Ended December 31, 2011	Cumulative Amounts from January 17, 2002 (Inception) through December 31, 2013
Cash Flows From Operating Activities				
Net loss	\$(27,697,744)	\$(12,568,354)	\$(19,434,699)	\$ (146,050,820)
Adjustments to reconcile net loss to net cash used in operating activities				
Depreciation	6,366	6,167	7,356	452,332
Amortization of patents	671,120	671,120	671,120	7,460,617
Amortization of original issue discount	—	—	—	3,845,721
Amortization of commitment fee	—	—	—	310,866
Amortization of prepaid consultant expense	—	—	—	1,292,226
Amortization of deferred loan costs	—	—	—	2,261,584
Accretion of United States Treasury Bills	—	—	—	(373,295)
Loss on extinguishment of debt	—	—	—	825,867
Loss on exercise of warrants	—	—	—	236,146
Beneficial conversion of convertible interest	—	—	—	55,976
Convertible interest	—	—	—	389,950
Compensation through issuance of stock options	142,310	183,028	3,368,950	14,540,039
Compensation through issuance of stock	—	—	—	932,000
Issuance of stock for services	526,000	456,500	332,750	9,579,511
Issuance of warrants for services	1,786,824	1,512,026	945,116	7,983,393
Issuance of warrants for contractual obligations	—	—	—	985,010
Gain on sale of equipment	—	—	—	(55,075)
Loss (gain) on change in fair value of warrant liability	14,671,130	(1,767,918)	(2,004,638)	8,758,929
(Increase) decrease in assets				
Increase (decrease) in liabilities				
Accounts payable	105,434	142,333	(317,375)	345,224
Accrued expenses	(103,912)	106,367	(769,640)	313,707
Net cash used in operating activities	(9,892,472)	(11,258,731)	(17,201,060)	(85,907,092)
Cash Flows From Investing Activities				
Proceeds from sale of fixed assets	—	—	—	180,075
Capital expenditures	(6,650)	(15,885)	(6,147)	(96,570)
Proceeds from investments	—	—	—	37,010,481
Purchases of investments	—	—	—	(36,637,186)
Net cash provided by (used in) investing activities	(6,650)	(15,885)	(6,147)	456,800
Cash Flows From Financing Activities				
Net proceeds from loans from stockholder	—	—	—	174,000
Proceeds from convertible debt	—	—	—	6,706,795
Net proceeds from sales of preferred stock and warrants	2,550,000	—	—	11,458,131
Net proceeds from sales of common stock and warrants	18,419,335	4,790,544	9,759,969	61,233,856
Proceeds from exercises of warrants and stock options	3,433,392	—	6,623,311	24,511,406
Cash paid to retire convertible debt	—	—	—	(2,385,959)
Cash paid for deferred loan costs	—	—	—	(747,612)
Cash paid for preferred dividends	(29,063)	—	—	(29,063)
Premium paid on extinguishments of debt	—	—	—	(170,519)
Purchase and retirement of common stock	—	—	—	(48,000)
Net proceeds from sale of non-controlling interest in Pure-ific Corporation	—	—	443,500	443,500
Net cash provided by financing activities	24,373,664	4,790,544	16,826,780	101,146,535

Net change in cash and cash equivalents	\$ 14,474,542	\$ (6,484,072)	\$ (380,427)	\$ 15,696,243
Cash and cash equivalents, at beginning of period	<u>\$ 1,221,701</u>	<u>\$ 7,705,773</u>	<u>\$ 8,086,200</u>	<u>\$ —</u>
Cash and cash equivalents, at end of period	<u>\$ 15,696,243</u>	<u>\$ 1,221,701</u>	<u>\$ 7,705,773</u>	<u>\$ 15,696,243</u>

Supplemental Disclosure of Noncash Investing and Financing Activities

	Year Ended December 31, 2013	Year Ended December 31, 2012	Year Ended December 31, 2011
Reclassification of warrant liability to equity due to exercise of warrants	\$ 4,402,078	\$ —	\$ 485,467

See accompanying notes to consolidated financial statements.

PROVECTUS BIOPHARMACEUTICALS, INC.
(A Development-Stage Company)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Significant Accounting Policies

Nature of Operations

Provectus Biopharmaceuticals, Inc. (together with its subsidiaries, the “Company”) is a development-stage biopharmaceutical company that is focusing on developing minimally invasive products for the treatment of psoriasis and other topical diseases, and certain forms of cancer including melanoma, breast cancer, and cancers of the liver. The Company intends to license and sell a majority stake of its non-core assets. The Company also intends to license and sell a majority stake of the underlying assets of its over-the-counter pharmaceuticals. To date the Company has no material revenues.

Principles of Consolidation

Intercompany balances and transactions have been eliminated in consolidation.

Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

Cash Concentrations

Cash and cash equivalents are maintained at financial institutions and, at times, balances may exceed federally insured limits. We have never experienced any losses related to these balances. All of our non-interest bearing cash balances were fully insured at December 31, 2012 due to a temporary federal program in effect from December 31, 2010 through December 31, 2012. Under the program, there is no limit to the amount of insurance for eligible accounts. Beginning 2013, insurance coverage reverted to \$250,000 per depositor at each financial institution, and our non-interest bearing cash balances may again exceed federally insured limits, although we seek to minimize this through treasury management.

Deferred Loan Costs and Debt Discounts

Costs related to the issuance of the convertible debt are recorded as deferred loan costs and amortized over the term of the loan using the effective interest method. Additionally, the Company recorded debt discounts related to warrants and beneficial conversion features issued in connection with the debt. Debt discounts are amortized over the term of the loan using the effective interest method. All deferred loan costs and debt discounts were fully amortized as of December 31, 2007.

Equipment and Furnishings

Equipment and furnishings acquired through the merger with Valley Pharmaceuticals, Inc. (“Valley”) (Note 2) have been stated at carry-over basis because the majority shareholders of Provectus also owned all of the shares of Valley. Other equipment and furnishings are stated at cost. Depreciation of equipment is provided for using the straight-line method over the estimated useful lives of the assets. Computers and laboratory equipment are being depreciated over five years; furniture and fixtures are being depreciated over seven years.

Long-Lived Assets

The Company reviews the carrying values of its long-lived assets for possible impairment whenever an event or change in circumstances indicates that the carrying amount of the assets may not be recoverable. Any long-lived assets held for disposal are reported at the lower of their carrying amounts or fair value less cost to sell. Management has determined there to be no impairment.

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Patent Costs

Internal patent costs are expensed in the period incurred. Patents purchased are capitalized and amortized over the remaining life of the patent.

Patents at December 31, 2013 were acquired as a result of the merger with Valley (Note 2). The majority shareholders of Provectus also owned all of the shares of Valley and therefore the assets acquired from Valley were recorded at their carry-over basis. The patents are being amortized over the remaining lives of the patents, which range from 3-8 years. Annual amortization of the patents is expected to approximate \$671,000 for each of the next three years and \$659,000 in 2017 and 2018.

Revenue Recognition

Prior to 2007, the Company recognized revenue when product was shipped. The Company has not had any such revenue since then.

Research and Development

Research and development costs are charged to expense when incurred. An allocation of payroll expenses to research and development is made based on a percentage estimate of time spent. The research and development costs include the following: payroll, consulting and contract labor, lab supplies and pharmaceutical preparations, legal, insurance, rent and utilities, and depreciation.

Income Taxes

The Company accounts for income taxes under the liability method in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 740 "Income Taxes". Under this method, deferred income tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is established if it is more likely than not that all, or some portion, of deferred income tax assets will not be realized. The Company has recorded a full valuation allowance to reduce its net deferred income tax assets to zero. In the event the Company were to determine that it would be able to realize some or all its deferred income tax assets in the future, an adjustment to the deferred income tax asset would increase income in the period such determination was made.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained upon an examination. Any recognized income tax positions would be measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement would be reflected in the period in which the change in judgment occurs. The Company would recognize any corresponding interest and penalties associated with its income tax positions in income tax expense. There were no income taxes, interest or penalties incurred in 2013, 2012 or 2011. Tax years going back to 2010 remain open for examination by the IRS.

Basic and Diluted Loss Per Common Share

Basic and diluted loss per common share is computed based on the weighted average number of common shares outstanding. Loss per share excludes the impact of outstanding options and warrants and convertible preferred stock as they are antidilutive. Potential common shares excluded from the calculation for the years ended December 31, 2013, 2012 and 2011, respectively, are 73,037,416, 30,038,017 and 25,119,247 from warrants, 15,322,206, 15,140,956 and 14,890,956 from options, and 33,334, 2,478,185 and 3,531,665 from convertible preferred shares.

Derivative Instruments

The warrants issued in conjunction with convertible preferred stock in March and April 2010 private placements include a reset provision if the Company issues additional warrants, in certain circumstances as defined in the agreement, below the exercise price of \$1.00. Effective January 1, 2009, the reset provision of these warrants preclude equity accounting treatment under ASC 815. Accordingly the Company is required to record the warrants as liabilities at their fair value upon issuance and remeasure the fair value at each period end with the change in fair value recorded in the statement of operations. When the warrants are exercised or cancelled, they are reclassified to equity. The Company uses the Monte-Carlo Simulation model to estimate the fair value of the warrants. Significant assumptions used at December 31, 2013 include a weighted average term of 1.2 years, a 5% probability that the warrant exercise price would be reset, a volatility range between 64.7% and 69.5% and a risk free interest rate range between 0.13% and 0.38%. Significant assumptions used at December 31, 2012 include a weighted average term of 2.2 years, a 5% probability that the warrant exercise price would be reset, a volatility range between 58.9% and 63.4% and a risk free interest rate range between 0.25% and 0.36%.

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Additionally, the Series A and Series C Warrants issued in conjunction with the January 2011 registered direct public offering include a reset provision if the Company issues additional warrants, in certain circumstances as defined in the agreement, below the exercise price of \$1.12. During 2012, the warrant exercise price was reset to \$0.675. Significant assumptions used at December 31, 2013 include a weighted average term of 2.0 years, a 5% probability that the warrant exercise price would be further reset, volatility of 64.7% and a risk free interest rate range between 0.38% and 0.78%. Significant assumptions used at December 31, 2012 include a weighted average term of 3.0 years, a 5% probability that the warrant exercise price would be further reset, a volatility range between 58.9% and 63.4% and a risk free interest rate range between 0.25% and 0.36%.

On February 22, 2013, the Company entered into a Securities Purchase Agreement with certain accredited investors for the issuance and sale in a private placement of an aggregate of \$2,550,000 of Units at a purchase price of \$0.75 per Unit. Each Unit consists of one share of Series A 8% Convertible Preferred Stock, par value \$.001 per share, and a warrant to purchase one and one-quarter shares of the Company's common stock, par value \$.001 per share (subject to adjustment) at an exercise price of \$1.00 per whole share (subject to adjustment). The total Series A 8% Convertible Preferred Stock issued was 3,400,001 shares, and the total warrants were 4,250,000. The Company used the net proceeds of the private placement for working capital, FDA trials, securing licensing partnerships, and general corporate purposes.

The Company determined that warrants issued in February, 2013 with the Series A 8% Convertible Preferred Stock should be classified as liabilities in accordance with ASC 815 because the warrants in question contain exercise price reset features that require the exercise price of the warrants be adjusted if the Company issues certain other equity related instruments at a lower price per share. The preferred stock was determined to have characteristics more akin to equity than debt. As a result, the conversion option was determined to be clearly and closely related to the preferred stock and therefore does not need to be bifurcated and classified as a liability. Significant assumptions used at December 31, 2013 include a weighted average term of 4.1 years, a 5% probability that the warrant exercise price would be reset, volatility of 67.2% and a risk free interest rate range between 0.78% and 1.78%.

Fair Value of Financial Instruments

The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents and accounts payable approximate their fair value because of the short-term nature of these items. Cash equivalents are measured on a recurring basis within the fair value hierarchy using Level 1 inputs.

The fair value of derivative instruments is determined by management. Certain derivatives with limited market activity are valued using externally developed models that consider unobservable market parameters.

Stock-Based Compensation

The compensation cost relating to share-based payment transactions is measured based on the fair value of the equity or liability instruments at date of issuance and is expensed on a straight-line basis. The Company utilizes the Black-Scholes option-pricing model for purposes of estimating the fair value of each stock option on the date of grant. The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected volatility factor of the market price of the Company's common stock (as determined by reviewing its historical public market closing prices). Because the Company's employee stock options have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

Warrants to non-employees are generally vested and nonforfeitable upon the date of the grant. Accordingly fair value is determined on the grant date.

Recent Accounting Pronouncements

None.

2. Recapitalization, Merger, Reincorporation and Name Change

On April 23, 2002, Provectus Pharmaceutical, Inc., a Nevada corporation and a Merger “blank check” public company, acquired Provectus Pharmaceuticals, Inc., a privately-held Tennessee corporation (“PPI”), by issuing 6,680,000 shares of common stock of Provectus Pharmaceutical to the stockholders of PPI in exchange for all of the issued and outstanding shares of PPI, as a result of which Provectus Pharmaceutical changed its name to Provectus Pharmaceuticals, Inc. (the “Company”) and PPI became a wholly-owned subsidiary of the Company. Prior to the transaction, PPI had no significant operations and had not generated any revenues.

For financial reporting purposes, the transaction has been reflected in the accompanying financial statements as a recapitalization of PPI and the financial statements reflect the historical financial information of PPI which was incorporated on January 17, 2002. Therefore, for accounting purposes, the shares recorded as issued in the reverse merger are the 265,763 shares owned by Provectus Pharmaceuticals, Inc. shareholders prior to the reverse merger.

The issuance of 6,680,000 shares of common stock of Provectus Pharmaceutical, Inc. to the stockholders of PPI in exchange for all of the issued and outstanding shares of PPI was done in anticipation of PPI acquiring Valley Pharmaceuticals, Inc., which owned the intellectual property to be used in the Company’s operations.

On November 19, 2002, the Company acquired Valley Pharmaceuticals, Inc. (“Valley”) a privately-held Tennessee corporation by merging PPI with and into Valley and naming the surviving company Xantech Pharmaceuticals, Inc. Valley had no significant operations and had not generated any revenues. Valley was formed to hold certain intangible assets which were transferred from an entity which was majority owned by the shareholders of Valley. Those shareholders gave up their shares of the other company in exchange for the intangible assets in a non-pro-rata split-off. The intangible assets were valued based on the market price of the stock given up in the split-off. The shareholders of Valley also owned the majority of the shares of the Company at the time of the transaction. The Company issued 500,007 shares of stock in exchange for the net assets of Valley which were valued at \$12,226,320 and included patents of \$11,715,445 and equipment and furnishings of \$510,875.

On December 16, 2013, Provectus Pharmaceuticals, Inc. was reincorporated in Delaware and changed its name to Provectus Biopharmaceuticals, Inc.

3. Commitments

Leases

The Company leases office and laboratory space in Knoxville, Tennessee on a month-to-month basis. Rent expense was \$55,379, \$55,378 and \$55,382 for Fiscal 2013, Fiscal 2012 and Fiscal 2011, respectively.

Employee Agreements

On July 1, 2013, the Company entered into executive employment agreements with each of H. Craig Dees, Ph.D., Timothy C. Scott, Ph.D., Eric A. Wachter, Ph.D., and Peter R. Culpepper, CPA, to serve as our Chief Executive Officer, President, Chief Technology Officer, and Chief Financial Officer and Chief Operating Officer, respectively. Each agreement provides that such executive will be employed for a one-year term with automatic one-year renewals unless previously terminated pursuant to the terms of the agreement or either party gives notice that the term will not be extended. The Company is committed to pay a total of \$1,000,000 over six months, which is the remainder of the current employment agreements at December 31, 2013. Executives are also entitled to participate in any incentive compensation plan or bonus plan adopted by the Company without diminution of any compensation or payment under the agreement. Executives are further entitled to reimbursement for all reasonable out-of-pocket expenses incurred during their performance of services under the agreement.

Each agreement generally provides that if the executive’s employment is terminated prior to a change in control (as defined in the agreement) (1) due to expiration or non-extension of the term by the Company; or (2) by the Company for any reason other than for cause (as defined in the agreement), then such executive shall be entitled to receive payments under the agreement as if the agreement was still in effect through the end of the period in effect as of the date of such termination. If the executive’s employment (1) is terminated by the Company at any time for cause, (2) is terminated by executive prior to, and not coincident with, a change in control or (3) is terminated by executive’s death, disability or retirement prior to a change in control, the executive (or his estate, as the case may be) shall be entitled to receive payments under the agreement through the last date of the month of such termination, a pro-rata portion of any incentive or bonus payment earned prior to such termination, any benefits to which he is entitled under the terms and conditions of the pertinent plans in effect at termination and any reasonable expenses incurred during the performance of services under the agreement.

In the event that coincident with or following a change in control, the executive's employment is terminated or the agreement is not extended (1) by action of the executive including his death, disability or retirement or (2) by action of the Company not for cause, the executive (or his estate, as the case may be) shall be entitled to receive payments under the agreement through the last day of the month of such termination, a pro-rata portion of any incentive or bonus payment earned prior to such termination, any benefits to which he is entitled under the terms and conditions of the pertinent plans in effect at termination and any reasonable expenses incurred during the performance of services under the agreement. In addition, the Company shall pay to the executive (or his estate, as the case may be), within 30 days following the date of termination or on the effective date of the change in control (whichever occurs later), a lump sum payment in cash in an amount equal to 2.90 times the base salary paid in the preceding calendar year, or scheduled to be paid to such executive during the year of such termination, whichever is greater, plus an additional amount sufficient to pay United States income taxes on the lump-sum amount paid.

4. Equity Transactions

(a) During 2002, the Company issued 2,020,000 shares of common stock in exchange for consulting services. These services were valued based on the fair market value of the stock exchanged which resulted in consulting costs charged to operations of \$5,504,000.

During 2002, the Company issued 510,000 shares of common stock to employees in exchange for services rendered. These services were valued based on the fair market value of the stock exchanged which resulted in compensation costs charged to operations of \$932,000.

In 2003, the Company issued 764,000 shares to consultants in exchange for services rendered, consisting of 29,000 shares issued in January valued at \$11,600, 35,000 shares issued in March valued at \$11,200, and 700,000 shares issued in October valued at \$217,000. The value for these shares was based on the market value of the shares issued. As all of these amounts represented payments for services to be provided in the future and the shares were fully vested and non-forfeitable, a prepaid consulting expense was recorded in 2003 which was fully amortized as of December 31, 2004.

In November and December 2003, the Company committed to issue 341,606 shares of common stock to consultants in exchange for services rendered. The total value for these shares was \$281,500 which was based on the market value of the shares issued. The shares were issued in January 2004. As these amounts represented payments for services to be provided in the future and the shares were fully vested and non-forfeitable, a prepaid consulting expense was recorded in 2003 which was fully amortized as of December 31, 2004.

In January 2004, the Company issued 10,000 shares to a consultant in exchange for services rendered. Consulting costs charged to operations were \$11,500. In March 2004, the Company committed to issue 36,764 shares to consultants in exchange for services. These shares were recorded as a prepaid consulting expense and were fully amortized at December 31, 2004. Consulting costs charged to operations were \$62,500. These 36,764 shares, along with 75,000 shares committed in 2003 were issued in August 2004. The 75,000 shares committed to be in 2003 were the result of a cashless exercise of 200,000 warrants in 2003, which were not issued as of December 31, 2003. In August 2004, the Company also issued 15,000 shares to a consultant in exchange for services rendered. Consulting costs charged to operations were \$25,200. In September 2004, the Company issued 16,666 shares to a consultant in exchange for services rendered. Consulting costs charged to operations were \$11,666. In October 2004, the Company issued 16,666 shares to a consultant in exchange for services rendered. Consulting costs charged to operations were \$13,666. In November 2004, the Company issued 16,666 shares to a consultant in exchange for services rendered. Consulting costs charged to operations were \$11,000. In December 2004, the Company issued 7,500 shares to a consultant in exchange for services rendered. Consulting costs charged to operations were \$3,525.

In January 2005, the Company issued 7,500 shares to consultants in exchange for services rendered. Consulting costs charged to operations were \$4,950. In February 2005, the Company issued 7,500 shares to consultants in exchange for services. Consulting costs charged to operations were \$7,574. In April 2005, the Company issued 190,733 shares to consultants in exchange for services. Consulting costs charged to operations were \$127,791. In May 2005, the Company issued 21,000 shares to consultants in exchange for services. Consulting costs charged to operations were \$11,970.

In December 2005, the Company committed to issue 689,246 shares to consultants in exchange for services rendered. 655,663 of these shares were issued in February 2006 and 33,583 shares were issued in May 2006. The total value for these shares was \$650,643 which was based on the market value of the shares issued and was recorded as an accrued liability at December 31, 2005. In February 2006, the Company issued 30,000 shares to consultants in exchange for services. Consulting costs charged to operations were \$26,100.

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In May 2007, the Company issued 50,000 shares to consultants in exchange for services. Consulting costs charged to operations were \$84,000. In August 2007, the Company issued 50,000 shares to consultants in exchange for services. Consulting costs charged to operations were \$104,950. In November 2007, the Company issued 50,000 shares to consultants in exchange for services. Consulting costs charged to operations were \$110,000. As of December 31, 2007, the Company is also committed to issue 16,667 shares to consultants in exchange for services. At December 31, 2007, these shares have a value of \$28,667 and have been included in accrued consulting expense.

During the three months ended March 31, 2008, the Company issued 100,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$122,500. During the three months ended June 30, 2008, the Company issued 12,500 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$13,000. During the three months ended September 30, 2008, the Company issued 62,500 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$70,250. During the three months ended December 31, 2008, the Company issued 175,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$184,250.

During the three months ended March 31, 2009, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$70,250. During the three months ended June 30, 2009, the Company issued 275,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$317,500. During the three months ended September 30, 2009, the Company issued 145,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$145,750. During the three months ended December 31, 2009, the Company issued 175,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$161,500.

During the three months ended March 31, 2010, the Company issued 193,750 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$190,688. During the three months ended June 30, 2010, the Company issued 232,500 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$317,425. During the three months ended September 30, 2010, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$76,750. During the three months ended December 31, 2010, the Company issued 275,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$271,750.

During the three months ended March 31, 2011, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$67,000. During the three months ended June 30, 2011, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$80,250. During the three months ended September 30, 2011, the Company issued 125,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$121,250. During the three months ended December 31, 2011, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$64,250.

During the three months ended March 31, 2012, the Company issued 175,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$160,000. During the three months ended June 30, 2012, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$64,500. During the three months ended September 30, 2012, the Company issued 225,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$184,750. During the three months ended December 31, 2012, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$47,250.

During the three months ended March 31, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$48,750. During the three months ended June 30, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$49,500. During the three months ended September 30, 2013, the Company issued 75,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$51,250. During the three months ended December 31, 2013, the Company issued 275,000 shares of common stock to consultants in exchange for services. Consulting costs charged to operations were \$214,000. As the fair market value of these services was not readily determinable, these services were valued based on the fair market value of stock at grant date, determined using the Black-Scholes option-pricing model.

(b) In February 2002, the Company sold 50,000 shares of common stock to a related party in exchange for proceeds of \$25,000.

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(c) In October 2002, the Company purchased 400,000 outstanding shares of stock from one shareholder for \$48,000. These shares were then retired.

(d) On December 5, 2002, the Company purchased the assets of Pure-ific L.L.C, a Utah limited liability company, and created a wholly-owned subsidiary called Pure-ific Corporation, to operate the Pure-ific business which consists of product formulations for Pure-ific personal sanitizing sprays, along with the Pure-ific trademarks. The assets of Pure-ific were acquired through the issuance of 25,000 shares of the Company's stock with a fair market value of \$0.50 and the issuance of various warrants. These warrants included warrants to purchase 10,000 shares of the Company's stock at an exercise price of \$0.50 issuable on the first, second and third anniversary dates of the acquisition. Accordingly, the fair market value of these warrants of \$14,500, determined using the Black-Scholes option pricing model, was recorded as additional purchase price for the acquisition of the Pure-ific assets. In 2004, 20,000 warrants were issued for the first and second anniversary dates. 10,000 of these warrants were exercised in 2004. In 2005, 10,000 warrants were issued for the third anniversary date. In January 2006, 10,000 warrants were exercised in a cashless exercise resulting in 4,505 shares issued. In 2007, the remaining 10,000 warrants were forfeited. In addition, warrants to purchase 80,000 shares of stock at an exercise price of \$0.50 will be issued upon the achievement of certain sales targets of the Pure-ific product. At December 31, 2013 and 2012, none of these targets have been met and accordingly, no costs have been recorded.

(e) In January 2003, the Company issued 25,000 warrants to a consultant for services rendered. In February 2003, the Company issued 360,000 warrants to a consultant, 180,000 of which were fully-vested and non-forfeitable at the issuance and 180,000 of which were cancelled in August 2003 due to the termination of the consulting contract. In September 2003, the Company issued 200,000 warrants to two consultants in exchange for services rendered. In November 2003, the Company issued 100,000 warrants to one consultant in exchange for services rendered. As the fair market value of these services was not readily determinable, these services were valued based on the fair market value, determined using the Black-Scholes option-pricing model. Fair market value for the warrants issued in 2003 ranged from \$0.20 to \$0.24 and totaled \$145,479. As these amounts represented payments for services to be provided in the future and the warrants were fully vested and non-forfeitable, a prepaid consulting expense was recorded in 2003 which was fully amortized as of December 31, 2004.

In May 2004, the Company issued 20,000 warrants to consultants in exchange for services rendered. Consulting costs charged to operations were \$18,800. In August 2004, the Company issued 350,000 warrants to consultants in exchange for services valued at \$329,000. In December 2004, the Company issued 10,000 warrants to consultants in exchange for services valued at \$3,680. Fair market value for the warrants issued in 2004 ranged from \$0.37 to \$1.22.

In January 2005, the Company issued 16,000 warrants to consultants in exchange for services rendered. Consulting costs charged to operations were \$6,944. In February 2005, the Company issued 13,000 warrants to consultants in exchange for services rendered. Consulting costs charged to operations were \$13,130. In March 2005, the Company issued 100,000 warrants to consultants in exchange for services rendered. Consulting costs charged to operations were \$68,910. In April 2005, the Company issued 410,000 warrants to consultants in exchange for services rendered. Consulting costs charged to operations were \$195,900. In May 2005, the Company issued 25,000 warrants to consultants in exchange for services rendered. Consulting costs charged to operations were \$9,250. In December 2005, the Company issued 33,583 warrants to consultants in exchange for services. Consulting costs charged to operations were \$24,571. The fair market value for the warrants issued in 2005 ranged from \$0.37 to \$1.01.

In May 2006, 350,000 warrants were exercised for \$334,000 resulting in 350,000 shares issued. During April, May and June, the Company issued 60,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$58,400. In August and September 2006, 732,534 warrants were exercised for \$693,357 resulting in 732,534 shares issued. During the three months ended September 30, 2006, the Company issued 335,000 warrants to consultants in exchange for services. At December 31, 2006, \$155,814 of these costs have been charged to operations with the remaining \$84,019 recorded as prepaid consulting expense as it represents payments for future services and the warrants are fully vested and non-forfeitable. As of December 31, 2007, the prepaid expense has been fully recognized. In November 2006, 100,000 warrants were forfeited. During the three months ended December 31, 2006, the Company issued 85,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$71,790. The fair market value for the warrants issued in 2006 ranged from \$0.67 to \$1.11.

During the three months ended March 31, 2007, the Company issued 85,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$75,933. During the three months ended June 30, 2007, the Company issued 85,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$98,185. In April and May 2007, 260,000 warrants were exercised for \$196,900 resulting in 260,000 shares being issued. In May 2007, 10,000 warrants were forfeited. During the three months ended September 30, 2007, the Company issued 135,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$250,342. During the three months ended September 30, 2007, 2,305,756 warrants were exercised for \$2,219,657 resulting in 2,305,756 shares being issued. 350,000 of the warrants exercised had an exercise price of \$1.00 that was reduced to \$0.90. Additional consulting costs of \$35,000

were charged to operations as a result of the reduction of the exercise price of the 350,000 warrants. During the three months ended December 31, 2007, 1,502,537 warrants were exercised for \$1,327,072 resulting in 1,051,656 shares being issued and 330,881 shares committed to be issued as of December 31, 2007 and then issued January 2, 2008. 65,874 of the warrants exercised had an exercise price of \$1.00 that was reduced to \$0.80. Additional consulting costs of \$13,175 were charged to operations as a result of the reduction of the exercise price of the 65,874 warrants. In December 2007, 10,000 warrants were forfeited. The fair market value for the warrants issued in 2007 ranged from \$0.80 to \$2.19.

During the three months ended March 31, 2008, the Company issued 60,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$40,657. During the three months ended March 31, 2008, 197,013 warrants were exercised for \$184,402 resulting in 197,013 shares being issued. 24,050 of the warrants exercised had an exercise price of \$1.00 that was reduced to \$0.80. Additional consulting costs of \$4,810 were charged to operations as a result of the reduction of the exercise price of the 24,050 warrants. During the three months ended March 31, 2008, 143,999 warrants were forfeited. Additionally, 330,881 shares committed to be issued as of December 31, 2007 were issued January 2, 2008. During the three months ended June 30, 2008, the Company issued 12,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$5,254. During the three months ended June 30, 2008, 1,075,104 warrants were exercised for \$980,064 resulting in 1,075,104 shares being issued. 576,012 of the warrants exercised had an exercise price of \$1.00 that was reduced to \$0.90. Additional consulting costs of \$57,602 were charged to operations as a result of the reduction of the exercise price of the 576,012 warrants. 15,050 of the warrants exercised had an exercise price of \$1.00 that was reduced to \$0.80. Additional consulting costs of \$3,010 were charged to operations as a result of the reduction of the exercise price of the 15,050 warrants. During the three months ended September 30, 2008, the Company issued 21,500 warrants to consultants in exchange for services. Consulting costs charged to operations were \$22,023. During the three months ended September 30, 2008, 1,156,555 warrants were exercised for \$1,081,704 resulting in 1,156,555 shares being issued. During the three months ended December 31, 2008, the Company issued 708,055 warrants to consultants in exchange for services. Consulting costs charged to operations were \$384,464. During the three months ended December 31, 2008, 203,500 warrants were exercised for \$172,000 resulting in 203,500 shares being issued. The fair market value for the warrants issued in 2008 ranged from \$0.58 to \$1.03.

During the three months ended March 31, 2009, the Company issued 243,612 warrants to consultants in exchange for services. Consulting costs charged to operations were \$131,476. During the three months ended March 31, 2009, 292,112 warrants were exercised for \$219,084 resulting in 292,112 shares being issued. 292,112 of the warrants exercised had an exercise price of \$0.935 that was reduced to \$0.75. Additional consulting costs of \$17,961 were charged to operations as a result of the reduction of the exercise price of the 292,112 warrants. During the three months ended June 30, 2009, the Company issued 101,500 warrants to consultants in exchange for services. Consulting costs charged to operations were \$49,684. During the three months ended June 30, 2009, 1,830,164 warrants were exercised for \$1,380,124 resulting in 1,830,164 shares being issued. 1,800,164 of the warrants exercised had an exercise price of \$0.935 that was reduced to \$0.75. Additional consulting costs of \$118,833 were charged to operations as a result of the reduction of the exercise price of the 1,800,164 warrants. Also, the Company paid \$94,508 and issued 126,012 shares of common stock as a cost of capital at a fair market value of \$151,214 to Chicago Investment Group of Illinois, L.L.C. as a placement agent for the transaction of exercising 1,800,164 warrants. The cash costs have been off-set against the proceeds received and the shares of common stock are classified as stock for services and the fair market value of the common stock as a cost of capital. During the three months ended June 30, 2009, 1,283,508 warrants were forfeited. During the three months ended September 30, 2009, the Company issued 167,833 warrants to consultants in exchange for services. Consulting costs charged to operations were \$110,941. During the three months ended September 30, 2009, 545,625 warrants were exercised for \$409,219 resulting in 545,625 shares being issued. 400,000 of the warrants exercised had an exercise price of \$0.98 that was reduced to \$0.75. 145,625 of the warrants exercised had an exercise price of \$0.935 that was reduced to \$0.75. Additional consulting costs of \$45,888 were charged to operations as a result of the reduction of the exercise price of the 545,625 warrants. During the three months ended September 30, 2009, 150,000 warrants were forfeited. During the three months ended December 31, 2009, the Company issued 987,667 warrants to consultants in exchange for services. Consulting costs charged to operations were \$562,780. During the three months ended December 31, 2009, 338,000 warrants were exercised for \$253,500 resulting in 338,000 shares being issued. 101,333 of the warrants exercised had an exercise price of \$0.935 that was reduced to \$0.75. 236,667 of the warrants exercised had an exercise price of \$1.00 that was reduced to \$0.75. Additional consulting costs of \$26,647 were charged to operations as a result of the reduction of the exercise price of the 338,000 warrants. During the three months ended December 31, 2009, 610,000 warrants were forfeited. The fair market value for the warrants issued in 2009 ranged from \$0.48 to \$0.63.

During the three months ended March 31, 2010, the Company issued 859,833 warrants to consultants in exchange for services. Consulting costs charged to operations were \$506,556. During the three months ended March 31, 2010, 1,603,360 warrants were exercised for \$1,493,418 resulting in 1,584,760 common shares being issued. 18,600 of the 1,603,360 common

shares issued were committed to be issued but not outstanding at March 31, 2010 and were issued in April 2010. 200,000 of the warrants exercised had an exercise price of \$1.00 that was reduced to \$0.75. 46,667 of the warrants exercised had an exercise price of \$0.935 that was reduced to \$0.8925. Additional consulting costs of \$22,397 were charged to operations as a result of the reduction of the exercise price of the 246,667 warrants. 350,000 warrants were exercised on a cashless basis resulting in 86,241 shares being issued. During the three months ended March 31, 2010, 563,333 warrants were forfeited. During the three months ended June 30, 2010, the Company issued 697,333 warrants to consultants in exchange for services. Consulting costs charged to operations were \$471,038. During the three months ended June 30, 2010, 123,334 warrants were exercised for \$117,917 resulting in 123,334 common shares being issued. 350,000 warrants were exercised on a cashless basis resulting in 73,914 shares being issued. During the three months ended June 30, 2010, 25,000 warrants were forfeited. During the three months ended September 30, 2010, the Company issued 91,500 warrants to consultants in exchange for services. Consulting costs charged to operations were \$50,397. During the three months ended September 30, 2010, 200,000 warrants were exercised on a cashless basis resulting in 10,080 shares being issued. During the three months ended September 30, 2010, 345,000 warrants were forfeited. During the three months ended December 31, 2010, the Company issued 151,500 warrants to consultants in exchange for services. Consulting costs charged to operations were \$91,205. During the three months ended December 31, 2010, 1,076,665 warrants were exercised on a cashless basis resulting in 188,421 shares being issued. During the three months ended December 31, 2010, 9,381,066 warrants were forfeited. During the three months ended December 31, 2010, 2,488,114 warrants were exercised for \$2,320,839 resulting in 2,488,114 common shares issued, of which 439,443 common shares were issued in 2010. \$1,915,509 of the \$2,320,839 was received in January 2011. 2,048,671 of the 2,488,114 common shares issued were committed to be issued but not outstanding at December 31, 2010 and were issued in January 2011. The fair market value for the warrants issued in 2010 ranged from \$0.43 to \$1.01.

During the three months ended March 31, 2011, the Company issued 641,500 warrants to consultants in exchange for services. Consulting costs charged to operations were \$389,172. During the three months ended March 31, 2011, 193,333 warrants were forfeited. During the three months ended June 30, 2011, 2,000 warrants were exercised for \$1,800 resulting in 2,000 shares of common stock being issued. During the three months ended September 30, 2011, the Company issued 293,500 warrants to consultants in exchange for services. Consulting costs charged to operations were \$151,144. During the three months ended September 30, 2011, 66,500 warrants were forfeited. During the three months ended December 31, 2011, the Company issued 752,000 warrants to consultants in exchange for services. Consulting costs charged to operations were \$404,800. During the three months ended December 31, 2011, 708,055 warrants were forfeited. The fair market value for the warrants issued in 2011 ranged from \$0.26 to \$0.78.

During the three months ended March 31, 2012, the Company issued 1,003,000 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$475,668. During the three months ended March 31, 2012, 1,500 warrants expired. During the three months ended June 30, 2012, the Company issued 454,500 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$183,908. During the three months ended June 30, 2012, 4,368,644 warrants expired. During the three months ended September 30, 2012, the Company issued 1,732,135 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$721,753. During the three months ended September 30, 2012, 122,833 warrants expired. During the three months ended December 31, 2012, the Company issued 452,500 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$130,697. During the three months ended December 31, 2012, 987,667 warrants expired. As the fair market value of these services was not readily determinable, these services were valued based on the fair market value, determined using the Black-Scholes option-pricing model. The fair market value for the warrants issued in 2012 ranged from \$0.24 to \$0.47.

During the three months ended March 31, 2013, the Company issued 1,924,973 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$409,640. During the three months ended March 31, 2013, 859,833 expired warrants were forfeited. During the three months ended June 30, 2013, the Company issued 2,605,000 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$931,655. During the three months ended June 30, 2013, 1,051,500 expired warrants were forfeited. During the three months ended September 30, 2013, the Company issued 442,000 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$186,223. During the three months ended September 30, 2013, 136,500 expired warrants were forfeited. During the three months ended December 31, 2013, the Company issued 209,473 fully vested warrants to consultants in exchange for services. Consulting costs charged to operations were \$259,306. During the three months ended December 31, 2013, 247,973 expired warrants were forfeited. During the three months ended December 31, 2013, 4,480,005 warrants were exercised on a cashless basis resulting in 2,386,004 shares being issued. During the three months ended December 31, 2013, 3,899,840 warrants were exercised for \$3,412,392 resulting in 3,899,840 common shares issued. As the fair market value of these services was not readily determinable, these services were valued based on the fair market value, determined using the Black-Scholes option-pricing model. The fair market value for the warrants issued in 2013 ranged from \$0.10 to \$1.97.

There are no provisions or obligations that would require the Company to cash settle any of its outstanding warrants. The equity classification of certain of the Company's warrants is appropriate considering that these warrants provide the counterparties the right to purchase a fixed number of shares at a fixed price and the terms are not subject to any potential adjustments. Certain warrants have been classified as liabilities since they contain certain anti-dilution provisions pursuant to which future issuances or deemed issuances of warrants, in certain circumstances as defined in the agreement, without consideration or for consideration per share less than the applicable exercise price in effect immediately prior to such issue, will result in the exercise price of the warrants being reduced to the consideration per share received by the Company for such deemed issue. Warrants classified as liabilities in 2013, 2011 and 2010 are further discussed in footnotes 4(f), 4(i), 4(j) and 10.

(f) In December 2003, the Company commenced an offering for sale of restricted common stock. As of December 31, 2003, the Company had sold 874,871 shares at an average gross price of \$1.18 per share. As of December 31, 2003, the Company had received net proceeds of \$292,472 and recorded a stock subscription receivable of \$87,875 for stock subscriptions prior to December 31, 2003 for which payment was received subsequent to December 31, 2003. The transaction is a Regulation S offering to foreign investors as defined by Regulation S of the Securities Act. The restricted shares cannot be traded for 12 months. After the first 12 months, sales of the shares are subject to restrictions under rule 144 for an additional year. The Company used a placement agent to assist with the offering. Costs related to the placement agent of \$651,771 have been off-set against the gross proceeds of \$1,032,118 and therefore are reflected as a direct reduction of equity at December 31, 2003. At December 31, 2003, 195,051 shares had not yet been issued. These shares were issued in the first quarter of 2004.

In 2004, the Company sold 2,274,672 shares of restricted common stock under this offering of which 1,672,439 shares were issued in the first quarter 2004 and 602,233 were issued in the second quarter 2004. Shares were sold during 2004 at an average gross price of \$1.05 per share with net proceeds of \$793,137. Costs related to the placement agent for proceeds received in 2004 of \$1,588,627 have been off-set against gross proceeds of \$2,381,764. On June 25, 2004, the Company entered into an agreement to sell 1,333,333 shares of common stock at a purchase price of \$.75 per share for an aggregate purchase price of \$1,000,000. Payments were received in four installments, the last of which was on August 9, 2004. Stock issuance costs included 66,665 shares of stock valued at \$86,666 and cash costs of \$69,000. The cash costs have been off-set against the proceeds received. In conjunction with the sale of the common stock, the Company issued 1,333,333 warrants with an exercise price of \$1.00 and a termination date of three years from the installment payment dates. In addition, the Company has given the investors an option to purchase 1,333,333 shares of additional stock including the attachment of warrants under the same terms as the original agreement. This option expired February 8, 2005. On November 16, 2004, the Company completed a private placement transaction with fourteen (14) accredited investors, pursuant to which the Company sold 530,166 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$397,625. In connection with the sale of the common stock, the Company also issued warrants to the investors to purchase up to 795,249 shares of our common stock at an exercise price of \$1.00 per share. The Company paid \$39,764 and issued 198,812 warrants to Venture Catalyst, LLC as placement agent for this transaction. The cash costs have been off-set against the proceeds received.

During the three months ended March 31, 2005, the Company completed a private placement transaction with eight (8) accredited investors, which were registered effective June 20, 2005, pursuant to which the Company sold 214,666 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$161,000. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 322,000 shares of common stock at an exercise price of \$1.00 per share. The Company paid \$16,100 and issued 80,500 warrants to Venture Catalyst, LLC as placement agent for this transaction. The cash costs have been off-set against the proceeds received. During the three months ended June 30, 2005, the Company completed a private placement transaction with four (4) accredited investors, which were registered effective June 20, 2005, pursuant to which the Company sold 230,333 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$172,750. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 325,500 shares of common stock at an exercise price of \$1.00 per share. The Company paid \$16,275 and issued 81,375 warrants to Venture Catalyst, LLC as placement agent for this transaction. The cash costs have been off-set against the proceeds received. During the three months ended September 30, 2005, the Company completed a private placement transaction with twelve (12) accredited investors pursuant to which the Company sold 899,338 shares of common stock at a purchase price of \$0.75 per share of which 109,333 are committed to be issued at December 31, 2005, for an aggregate purchase price of \$674,500. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 1,124,167 shares of common stock at an exercise price of \$0.935 per share. The Company paid \$87,685 and committed to issue 79,000 shares of common stock at a fair market value of \$70,083 to Network 1 Financial Securities, Inc. as placement agent for this transaction which is accrued at December 31,

2005. The cash and common stock costs have been off-set against the proceeds received. During the three months ended December 31, 2005, the Company completed a private placement transaction with sixty-two (62) accredited investors pursuant to which the Company sold 10,065,605 shares of common stock at a purchase price of \$0.75 per share of which 5,126,019 are committed to be issued at December 31, 2005, for an aggregate purchase price of \$7,549,202. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 12,582,009 shares of common stock at an exercise price of \$0.935 per share. The Company paid \$959,540, issued 46,667 shares of common stock at a fair market value of \$46,467, issued 30,550 warrants, and committed to issue 950,461 shares of common stock at a fair market value of \$894,593 to a syndicate led by Network 1 Financial Securities, Inc. as placement agent for this transaction which is accrued at December 31, 2005. The cash and common stock costs have been off-set against the proceeds received.

In January 2006, the Company issued 5,235,352 shares committed to be issued at December 31, 2005 for shares sold in 2005. In February 2006, the Company issued 1,029,460 shares committed to be issued at December 31, 2005 for stock issuance costs related to shares sold in 2005. The total value for these shares was \$964,676 which was based on the market value of the shares issued and was recorded as an accrued liability at December 31, 2005. During the three months ended March 31, 2006, the Company completed a private placement transaction with five (5) accredited investors pursuant to which the Company sold 466,833 shares of common stock at a purchase price of \$0.75 per share for an aggregate purchase price of \$350,125. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 466,833 shares of common stock at an exercise price of \$0.935 per share. The Company paid \$35,013 and issued 46,683 shares of common stock at a fair market value of \$41,815 to Chicago Investment Group, L.L.C. as placement agent for this transaction. The cash costs have been off-set against the proceeds received. In May 2006, the Company completed a private placement transaction with two (2) accredited investors pursuant to which the Company sold a total of 153,647 shares of common stock at an average purchase price of \$1.37 per share, for an aggregate purchase price of \$210,000. In connection with the sale of common stock, the Company also issued warrants to the 2 investors to purchase up to 76,824 shares of common stock at an average exercise price of \$2.13 per share. In September 2006, the Company completed a private placement transaction with seven (7) accredited investors pursuant to which the Company sold a total of 708,200 shares of common stock at a purchase price of \$1.00 per share, for an aggregate purchase price of \$708,200. The Company paid \$92,067 and issued 70,820 shares of common stock at a fair market value of \$84,984 to Network 1 Financial Securities, Inc. as placement agent for this transaction. The cash costs have been off-set against the proceeds received. In October 2006 the Company completed a private placement transaction with 15 accredited investors pursuant to which the Company sold a total of 915,000 shares of common stock at a purchase price of \$1.00 per share, for an aggregate purchase price of \$915,000. The Company paid \$118,950 and issued 91,500 shares of common stock at a fair market value of \$118,500 to Network 1 Financial Securities, Inc. as placement agent for this transaction. The cash costs have been off-set against the proceeds received. During the three months ended December 31, 2006, the Company completed a private placement transaction with 10 accredited investors pursuant to which the Company sold 1,400,000 shares of common stock at a purchase price of \$1.00 per share of which 150,000 are committed to be issued at December 31, 2006, for an aggregate purchase price of \$1,400,000. The Company paid \$137,500, issued 125,000 shares of common stock at a fair market value of \$148,750, and committed to pay \$16,500 and to issue 15,000 shares of common stock at a fair market value of \$17,550 to Chicago Investment Group of Illinois, L.L.C. as a placement agent for this transaction which is accrued at December 31, 2006. The cash and accrued stock costs have been off-set against the proceeds received.

In January 2007, the Company issued 150,000 shares committed to be issued at December 31, 2006 for shares sold in 2006. In January 2007, the Company also issued 15,000 shares committed to be issued at December 31, 2006 for common stock costs related to shares sold in 2006. The total value for these shares was \$17,550 which was based on the market value of the shares issued and was recorded as an accrued liability at December 31, 2006. In January and February 2007, the Company completed a private placement transaction with six accredited investors pursuant to which the Company sold a total of 265,000 shares of common stock at a purchase price of \$1.00 per share, for an aggregate purchase price of \$265,000. The Company paid \$29,150 and issued 26,500 shares of common stock at a fair market value of \$32,130 to Chicago Investment Group of Illinois, L.L.C. as a placement agent for this transaction. The cash costs have been off-set against the proceeds received. Also in January and February 2007, the Company completed a private placement transaction with 13 accredited investors pursuant to which the Company sold a total of 1,745,743 shares of common stock at a purchase price of \$1.05 per share, for an aggregate purchase price of \$1,833,031. The Company paid \$238,293 and issued 174,574 shares of common stock at a fair market value of \$200,760 to Network 1 Financial Securities, Inc. as placement agent for this transaction. The cash costs have been off-set against the proceeds received.

In May and June 2009 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 1,750,000 shares of common stock at a purchase price of \$0.90 per share, for an aggregate purchase price of \$1,575,000. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 875,000 shares of common stock at an exercise price of \$1.00 per share. The Company paid

\$227,250 and issued 175,000 shares of common stock at a fair market value of \$197,750 to Maxim Group, LLC as a placement agent for this transaction. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. During the three months ended June 30, 2009, the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 2,868,994 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$2,151,749. 186,667 of the 2,868,994 common shares sold were committed to be issued but not outstanding at June 30, 2009 and which were issued in July 2009. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 1,434,510 shares of common stock at an exercise price of \$1.50 per share. The Company paid \$255,323, has accrued \$24,404 to be paid as of June 30, 2009, which was paid in July 2009, and was committed to issue 286,900 shares of common stock at June 30, 2009 at a fair market value of \$295,507 to Network 1 Financial Securities, Inc. as placement agent for this transaction, which were issued in August 2009. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. In July 2009 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 1,040,570 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$780,427. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 520,120 shares of common stock at an exercise price of \$1.50 per share. The Company paid \$101,485 and issued 100,016 shares of common stock in August 2009 at a fair market value of \$95,015 to Network 1 Financial Securities, Inc. as placement agent for this transaction. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. In July and September 2009 the Company completed a private placement transaction with a total of two accredited investors pursuant to which the Company sold a total of 309,000 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$231,750. The proceeds received are for general corporate purposes. In September 2009 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 1,696,733 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$1,272,550. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 848,366 shares of common stock at an exercise price of \$1.00 per share. The Company paid \$180,432 and was committed to issue 169,673 shares of common stock at a fair market value of \$169,673 to Maxim Group, LLC as a placement agent for this transaction which were issued in November 2009. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. During the three months ended December 31, 2009, the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 1,486,367 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$1,114,775. 266,600 of the 1,486,367 common shares sold are committed to be issued but not outstanding at December 31, 2009 and which were issued in January 2010. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 743,185 shares of common stock at an exercise price of \$0.95 per share. The Company paid \$118,926, has accrued \$25,994 to be paid as of December 31, 2009, which was paid in January 2010, and is committed to issue 148,637 shares of common stock at December 31, 2009 at a fair market value of \$132,287 to Network 1 Financial Securities, Inc. as placement agent for this transaction. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. In December 2009 the Company completed a private placement transaction with an accredited investor pursuant to which the Company sold a total of 500,000 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$375,000. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 250,000 shares of common stock at an exercise price of \$1.00 per share. The Company paid \$48,750 and is committed to issue 50,000 shares of common stock at a fair market value of \$45,000 to Maxim Group, LLC as a placement agent for this transaction at December 31, 2009, which were issued in January 2010. The cash costs have been off-set against the proceeds received, which are for general corporate purposes.

The Company issued 50,000 shares of common stock, which were committed to be issued at December 31, 2009 to Maxim Group, LLC in January 2010. The Company issued 148,637 shares of common stock, which were committed to be issued at December 31, 2009 to Network 1 Financial Securities, Inc. in March 2010. During the three months ended March 31, 2010 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 250,000 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$187,500. The proceeds received are for general corporate purposes. The transaction is a Regulation S offering to foreign investors as defined by Regulation S of the Securities Act. During the three months ended March 31, 2010, the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 1,564,683 shares of common stock at a purchase price of \$0.75 to \$0.80 per share, for an aggregate purchase price of \$1,178,824. 1,106,250 of the 1,564,683 common shares sold were committed to be issued but not outstanding at March 31, 2010 and which were issued in April 2010. In connection with the sale of common stock, the Company also issued warrants to the investors to purchase up to 739,217 shares of common stock at an exercise price of \$1.00 per share. 266,600 shares of common stock that were committed to be issued at December 31, 2009 were issued in January 2010. During the three months ended March 31, 2010, the Company paid \$44,697, and has accrued \$108,550 to be paid as of March 31, 2010, which was paid in April 2010 to Network 1 Financial Securities, Inc. as a placement agent for this transaction. The Company issued 45,843 shares of

common stock at a fair market value of \$60,971, and was committed to issue 110,625 shares of common stock at a fair market value of \$164,831 to Network 1 Financial Securities, Inc. as a placement agent for this transaction and which were issued in May 2010. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. During the three months ended March 31, 2010 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 1,360,322 shares of common stock at a purchase price of \$0.935 per share, for an aggregate purchase price of \$1,271,901. 213,904 of the 1,360,322 common shares sold were committed to be issued but not outstanding at March 31, 2010 which were issued in April 2010. The Company paid \$127,190, and was committed to issue 136,032 shares of common stock at a fair market value of \$191,805 to Brewer Financial Services, LLC as a placement agent for this transaction which were issued in April 2010. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. During the three months ended March 31, 2010 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 92,000 shares of common stock at a purchase price of \$0.75 to \$1.00 per share, for an aggregate purchase price of \$75,250. The proceeds received are for general corporate purposes. During the three months ended June 30, 2010 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 150,000 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$112,500. The proceeds received are for general corporate purposes. The transaction is a Regulation S offering to foreign investors as defined by Regulation S of the Securities Act. During the three months ended June 30, 2010, the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 3,531,250 shares of common stock at a purchase price of \$0.75 to \$0.80 per share, for an aggregate purchase price of \$2,815,000. In connection with the sale of common stock, the Company also issued warrants to an investor to purchase up to 100,000 shares of common stock at an exercise price of \$1.00 per share. During the three months ended June 30, 2010, the Company paid \$365,949 and issued 353,125 shares of common stock at a fair market value of \$462,594 to Network 1 Financial Securities, Inc. as a placement agent for this transaction. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. During the three months ended June 30, 2010 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 200,000 shares of common stock at a purchase price of \$1.00 per share, for an aggregate purchase price of \$200,000. The proceeds received are for general corporate purposes. During the three months ended September 30, 2010 the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 139,000 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$104,250. The proceeds received are for general corporate purposes. The transaction is a Regulation S offering to foreign investors as defined by Regulation S of the Securities Act. During the three months ended September 30, 2010, the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 556,150 shares of common stock at a purchase price of \$0.935 per share, for an aggregate purchase price of \$520,000. The Company paid \$67,600 and issued 55,614 shares of common stock at a fair market value of \$52,278 to Network 1 Financial Securities, Inc. as a placement agent for this transaction. The cash costs have been off-set against the proceeds received, which are for general corporate purposes. During the three months ended December 31, 2010 the Company completed a private placement transaction with an accredited investor pursuant to which the Company sold a total of 20,000 shares of common stock at a purchase price of \$0.75 per share, for an aggregate purchase price of \$15,000. The proceeds received are for general corporate purposes. The transaction is a Regulation S offering to foreign investors as defined by Regulation S of the Securities Act. In December 2010, we completed a registered direct offering with Lincoln Park Capital Fund, LLC, pursuant to which Lincoln Park purchased 1,000,000 shares of our common stock for an aggregate purchase price of \$1,000,000. In connection with the sale of common stock, the Company also issued warrants to the investor to purchase up to 500,000 shares of common stock at an exercise price of \$1.50 per share. The Company issued 300,000 common shares to Lincoln Park at a fair market value of \$273,000 as commitment shares in consideration for Lincoln Park to enter into the purchase agreement. In addition to the foregoing investment, under the purchase agreement, the Company could, in our sole discretion, direct Lincoln Park to purchase up to an additional \$30,000,000 of our common stock over the 30-month term of the purchase agreement at no less than \$0.75 per share. In January 2011, the Company directed Lincoln Park Capital Fund, LLC to purchase 50,000 shares of our common stock for an aggregate purchase price of \$44,665. The Company issued 2,233 common shares to Lincoln Park at a fair market value of \$1,995 as commitment shares in consideration for Lincoln Park to enter into the purchase agreement. On June 23, 2013, our agreement with Lincoln Park Capital Fund, LLC expired.

On January 13, 2011, the Company and certain investors entered into a securities purchase agreement, pursuant to which the Company agreed to sell in a registered direct public offering an aggregate of 5,454,550 shares of its common stock and warrants to purchase a total of 7,527,279 shares of its common stock to such investors for aggregate gross proceeds of \$5,100,004. The warrants consist of the following: Series A Warrants to purchase up to 40% of the shares of common stock, or 2,181,821 shares, Series B Warrants to purchase up to 70% of the shares of common stock, or 3,818,185 shares, and Series C Warrants to purchase up to 28% of the common stock, or 1,527,273 shares. The Series A Warrants and the Series C Warrants have an exercise price of \$1.12 per share, subject to adjustment, and expire five years after their issuance. The

Series B Warrants have an exercise price \$0.935 per share, subject to adjustment, and expire 150 days after their issuance. The Series C Warrants are only exercisable to the extent that the Series B Warrants are exercised and only in the same percentage that the Series B Warrants are exercised. At March 31, 2011, 1,497,328 of the Series B Warrants were exercised resulting in 598,931 of the Series C Warrants becoming exercisable. The Series A Warrants and Series C Warrants contain additional anti-dilution provisions such that, subject to customary exceptions, in the event of an issuance or deemed issuance by the Company of common stock or securities convertible into common stock at a price per share less than the then applicable exercise price, the then applicable exercise price will be reduced to the new issuance price. The Company determined that these warrants should be classified as liabilities in accordance with Financial Accounting Standards Board Accounting Standards Codification 815-40-15-5 ("ASC 815"), "Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock", because the warrants in question contain exercise price reset features that require the exercise price of the warrants be adjusted if the Company issues certain other equity related instruments at a lower price per share. The value of the warrant liability was determined based on the Monte-Carlo Simulation model at the date the warrants were issued. The warrant liability was then revalued at each quarter ended March 31, June 30, September 30 and December 31, 2011 and 2012. The Series B Warrants do not contain exercise reset provisions. However, the Series B Warrants required the Company to deliver registered shares of common stock and if the Company was not in a position to do so when the shares are exercised, it is assumed they would have to settle the shares in cash. As a result, the Series B Warrants were recorded as a liability in accordance with ASC 815 and recorded at fair value on the date of issuance using a Black-Scholes option pricing model. The warrant liability initially recorded on January 13, 2011 for all three series of warrants was \$3,204,197. During the three months ended March 31, 2011, 1,497,328 of the Series B Warrants were exercised for \$1,400,001, resulting in 1,497,528 common shares being issued. The Company determined the fair value of the warrants exercised on the date of exercise and adjusted the related warrant liability accordingly, resulting in a gain of \$188,509. The adjusted fair value of the Series B Warrants exercised of \$211,569 was reclassified into additional paid-in capital. During the three months ended June 30, 2011, the remainder of the Series B Warrants was exercised for \$2,171,801, resulting in 2,320,857 shares being issued. The Company determined the fair value of the warrants exercised on the date of exercise and adjusted the related warrant liability accordingly, resulting in a gain of \$272,077. The adjusted fair value of the Series B Warrants exercised of \$273,898 was reclassified into additional paid-in capital. For the year ended December 31, 2011 there was a gain recognized from the revaluation of the warrant liability of \$1,457,639. At December 31, 2012, the Series A Warrants and the Series C Warrants exercise price of \$1.12 per share was reduced to \$0.675 per share due to a new issuance price, net of commissions, from a private offering of common stock and warrants to accredited investors during the three months ended December 31, 2012 and pursuant to their exercise price reset provision. For the year ended December 31, 2012 there was a gain recognized from the revaluation of the warrant liability of \$495,338. During the three months ended December 31, 2013, 1,269,520 of the Series A Warrants were exercised. During the three months ended December 31, 2013, 748,663 of the Series C Warrants were exercised. The Company determined the fair value of the Series A and Series C Warrants exercised on the date of exercise and adjusted the related warrant liability accordingly. The adjusted fair value of the Series A and Series C Warrants exercised of \$1,620,081 was reclassified into additional paid-in capital. For the year ended December 31, 2013 there was a loss recognized from the revaluation of the warrant liability of \$3,873,187.

On April 20, 2011, the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$4,615,300. The Company accepted subscriptions, in the aggregate, for 4,120,803 shares of common stock, one year warrants to purchase 2,060,402 shares of common stock, and five year warrants to purchase 2,060,402 shares of common stock. Investors received one year warrants and five year warrants, in each case, to purchase up to 50% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.25 per share. The purchase price for each share of common stock together with the warrants was \$1.12. The Company used the proceeds, after deducting offering expenses of approximately \$25,000, for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company issued five year warrants to purchase 649,518 shares of common stock with an exercise price of \$1.12 to Network 1 Financial Securities, Inc., which represents 20% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc.

During the three months ended December 31, 2011, the Company completed a private offering of common stock in its Pure-ific Corporation subsidiary and warrants to accredited investors for gross proceeds of \$500,000. The Company sold 666,666 Units in its Pure-ific Corporation subsidiary which totaled a 33 percent ownership in the subsidiary as of December 31, 2011 and 500,000 warrants to purchase 500,000 shares of the Company at an exercise price of \$1.25 per share with a five year term. Since at the time of the sale and as of December 31, 2013 and 2012, the carrying value of the net assets in Pure-ific Corporation was \$0 and the Company has legal rights to retain the proceeds from the offering, no value was ascribed to the non-controlling interest in the subsidiary. Also, since the Company maintains a controlling interest in Pure-ific Corporation, the sale was accounted for as an equity transaction. The Company intends to use the proceeds, after deducting offering expenses of approximately \$56,500, to spin-off Pure-ific Corporation as a new publicly traded Company. Network 1 Financial Securities, Inc. served as placement agent for the offering.

During the three months ended June 30, 2012 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,077,796. The Company accepted subscriptions, in the aggregate, for 1,855,176 shares of common stock, and five year warrants to purchase 1,855,176 shares of common stock. Investors received five year fully vested warrants to purchase up to 100% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.25 per share. The purchase price for each share of common stock together with the warrants was \$1.12. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company issued five year fully vested warrants to purchase 371,035 shares of common stock with an exercise price of \$1.12 to Network 1 Financial Securities, Inc., which represents 20% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended December 31, 2012 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,379,365. The Company accepted subscriptions, in the aggregate, for 3,172,486 shares of common stock, and five year warrants to purchase 3,172,486 shares of common stock. Investors received five year fully vested warrants to purchase up to 100% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$279,317 and issued five year fully vested warrants to purchase 317,249 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended December 31, 2012 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$710,000. The Company accepted subscriptions, in the aggregate, for 946,666 shares of common stock, and five year warrants to purchase 946,666 shares of common stock. Investors received five year fully vested warrants to purchase up to 100% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Maxim Group LLC served as placement agent for the offering. In connection with the offering, the Company paid \$97,300 and issued five year fully vested warrants to purchase 94,667 shares of common stock with an exercise price of \$1.00 to Maxim Group LLC, which represents 10% of the total number of shares of common stock sold to investors solicited by Maxim Group LLC.

During the three months ended March 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$4,045,510. The Company accepted subscriptions, in the aggregate, for 5,394,013 shares of common stock, and five year warrants to purchase 7,277,264 shares of common stock. Investors received five year fully vested warrants to purchase up to 100% to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$522,640 and issued five year fully vested warrants to purchase 539,401 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended June 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,641,501. The Company accepted subscriptions, in the aggregate, for 3,522,001 shares of common stock, and five year warrants to purchase 5,283,003 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$314,173, accrued \$32,500 at June 30, 2013 which was paid in July 2013 and issued five year fully vested warrants to purchase 352,200 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc.

On July 22, 2013 the Company entered into a Purchase Agreement with Alpha Capital Anstalt pursuant to which the Company may, in the Company's sole discretion, direct the purchase up to \$30,000,000 of the Company's common stock over the 30-month term of the Purchase Agreement. From time to time during the term of the Purchase Agreement, the Company may, in its sole discretion direct the purchase up to 100,000 shares of the Company's common stock at a per share purchase price equal to the lesser of (i) the lowest sale price of the Company's common stock reported on the OTCQB on the

purchase date and (ii) the arithmetic average of the three lowest closing sale prices for the Company's common stock during the 12 consecutive business days ending on the business day immediately preceding the purchase date. The Company may, under certain circumstances, at its discretion, increase the amount of common stock that it sells on each purchase date. The committed obligation under any single regular purchase shall not exceed \$250,000, unless the parties mutually agree to increase the dollar amount of any regular purchase. In no event may Alpha Capital Anstalt purchase shares of the Company's common stock for less than \$0.75 per share. In consideration of entering into the Purchase Agreement and making the commitment to purchase the Purchase Shares, the Company issued 250,000 shares of the Company's common stock to Alpha Capital Anstalt. Costs charged to operations for this commitment fee were \$162,500. The Purchase Agreement may be terminated by the Company at any time, at its discretion, without cost to the Company.

During the three months ended September 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$4,613,037. The Company accepted subscriptions, in the aggregate, for 6,150,718 shares of common stock and five year warrants to purchase 9,226,077 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$564,686 and issued five year fully vested warrants to purchase 615,072 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended September 30, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$2,687,500. The Company accepted subscriptions, in the aggregate, for 3,583,333 shares of common stock and five year warrants to purchase 5,375,000 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Maxim Group LLC served as placement agent for the offering. In connection with the offering, the Company paid \$349,375 and issued five year fully vested warrants to purchase 358,333 shares of common stock with an exercise price of \$1.00 to Maxim Group LLC, which represents 10% of the total number of shares of common stock sold to investors solicited by Maxim Group LLC. During the three months ended December 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$5,820,588. The Company accepted subscriptions, in the aggregate, for 7,760,784 shares of common stock and five year warrants to purchase 11,641,176 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company plans to use the proceeds for working capital and other general corporate purposes. Network 1 Financial Securities, Inc. served as placement agent for the offering. In connection with the offering, the Company paid \$747,302 and issued five year fully vested warrants to purchase 776,078 shares of common stock with an exercise price of \$1.00 to Network 1 Financial Securities, Inc., which represents 10% of the total number of shares of common stock sold to investors solicited by Network 1 Financial Securities, Inc. During the three months ended December 31, 2013 the Company completed a private offering of common stock and warrants to accredited investors for gross proceeds of \$1,312,500. The Company accepted subscriptions, in the aggregate, for 1,750,000 shares of common stock and five year warrants to purchase 2,625,000 shares of common stock. Investors received five year fully vested warrants to purchase up to 150% of the number of shares purchased by the investors in the offering. The warrants have an exercise price of \$1.00 per share. The purchase price for each share of common stock together with the warrants was \$0.75. The Company used the proceeds for working capital and other general corporate purposes. Maxim Group LLC served as placement agent for the offering. In connection with the offering, the Company paid \$170,625 and issued five year fully vested warrants to purchase 175,000 shares of common stock with an exercise price of \$1.00 to Maxim Group LLC, which represents 10% of the total number of shares of common stock sold to investors solicited by Maxim Group LLC.

(g) Pursuant to a Standby Equity Distribution Agreement ("SEDA") dated July 28, 2004 between the Company and Cornell Capital Partners, L.P. ("Cornell"), the Company could, at its discretion, issue shares of common stock to Cornell at any time until June 28, 2006. As of December 31, 2006 there were no shares issued pursuant to the SEDA. The facility is subject to having in effect a registration statement covering the shares. A registration statement covering 2,023,552 shares was declared effective by the Securities and Exchange Commission on November 16, 2004. The maximum aggregate amount of the equity placements pursuant to the SEDA was \$20 million, and the Company could draw down up to \$1 million per month. Pursuant to the SEDA, on July 28, 2004, the Company issued 190,084 shares of common stock to Cornell and 7,920 shares of common stock to Newbridge Securities Corporation as commitment shares. These 198,004 shares had a FMV of \$310,866 on July 28, 2004 which was being amortized over the term of the commitment period which was one year from the date of registration. The full amount was amortized as of December 31, 2006.

(h) The Company issued 175,000 warrants each month from March 2005 to November 2005, resulting in total warrants of 1,575,000, to Gryffindor Capital Partners I, L.L.C. pursuant to the terms of the Second Amended and Restated Note dated November 26, 2004. Total interest costs charged to operations were \$985,010.

(i) In March 2010, the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 10,583,324 units (the "Units"), at purchase price of \$0.75 per Unit, each Unit consisting of one share of 8% convertible preferred stock, par value \$.001 per share (the "8% Convertible Preferred Stock") and a warrant to purchase one-half share of common stock, par value \$.001 per share, totaling 5,291,654 warrants with an exercise price of \$1.00 per share of common stock, for an aggregate amount of gross proceeds of \$7,937,449. The Company paid \$1,054,318, and issued 1,058,333 shares of common stock at a fair market value of \$1,407,583 to Maxim Group, LLC as a placement agent for this transaction. The cash costs have been offset against the proceeds received, which are for general corporate purposes.

At the option of the holder, each share of preferred stock is convertible at any time into one share of common stock. At the option of the Company, but only after such time that the volume-weighted average price of common stock exceeds \$2.25 and the average daily trading volume exceeds 150,000 shares for 30 consecutive days, the Company may convert all or a portion of the outstanding preferred stock into common stock. At the option of the Company, but only after such time that the volume-weighted average price of common stock exceeds \$2.25 and the average daily trading volume exceeds 150,000 shares for 30 consecutive days, the Company may redeem all or a portion of the outstanding preferred stock at the original issue price of \$0.75 per share, plus all accrued and unpaid dividends. Prior to redemption, the holders of the preferred stock can elect to convert to common stock. Upon voluntary or involuntary liquidation, winding-up or dissolution of the Company, the holders of preferred stock will be entitled to receive out of the assets of the Company, cash in an amount equal to the original issue price of \$0.75 per share plus all accrued or unpaid dividends prior to any payments made to common shareholders.

In April 2010, the Company completed a private placement transaction with accredited investors pursuant to which the Company sold a total of 2,700,000 units (the "Units"), at purchase price of \$0.75 per Unit, each Unit consisting of one share of 8% convertible preferred stock, par value \$.001 per share (the "8% Convertible Preferred Stock") and a warrant to purchase one-half share of common stock, par value \$.001 per share, totaling 1,350,000 warrants with an exercise price of \$1.00 per share of common stock, for an aggregate amount of gross proceeds of \$2,025,000. The proceeds received are for general corporate purposes.

The Company determined that these warrants issued in March and April, 2010 should be classified as liabilities in accordance ASC 815 because the warrants in question contain exercise price reset features that require the exercise price of the warrants be adjusted if the Company issues certain other equity related instruments at a lower price per share.

The preferred stock was determined to have characteristics more akin to equity than debt. As a result, the conversion option was determined to be clearly and closely related to the preferred stock and therefore does not need to be bifurcated and classified as a liability. The proceeds received from the issuance of the preferred stock were first allocated to the fair value of the warrants with the remainder allocated to the preferred stock. The fair value of the preferred stock if converted on the date of issuance was greater than the value allocated to the preferred stock. As a result, a beneficial conversion amount was recorded upon issuance. The fair value of the warrants recorded from the March 2010 issuance was \$3,651,241 resulting in a beneficial conversion amount of \$4,286,208. The beneficial conversion and the amount allocated to the warrants have been recorded as a deemed dividend as of March 31, 2010 and are included in dividends on preferred stock on the consolidated statements of operations. The fair value of the warrants recorded from the April 2010 issuance was \$1,039,500 resulting in a beneficial conversion amount of \$985,000. The beneficial conversion and the amount allocated to the warrants have been recorded as a deemed dividend as of June 30, 2010 and are included in dividends on preferred stock on the consolidated statements of operations.

The value of the warrant liability was determined based on the Monte-Carlo Simulation model at the date the warrants were issued. The warrant liability is then revalued at each subsequent quarter. The warrant liability was initially recorded on March 11, 2010 for \$3,651,241 which is the value of the warrants issued on that date based on the Monte-Carlo Simulation model. The warrant liability was then revalued at each quarter ended March 31, June 30, September 30 and December 31, 2010, 2011 and 2012. On April 27, 2010 an additional warrant liability was recorded for \$1,039,500 which is the value of warrants issued on that date based on the Monte-Carlo Simulation model. In November 2010, 901,664 of the warrants included in the warrant liability were exercised. The Company determined the fair value of the warrants exercised on the date

of exercise and adjusted the related warranty liability to this amount. The adjusted fair value of the warrants exercised of \$197,700 was reclassified into additional paid-in capital. For the year ended December 31, 2010 there was a gain recognized from the revaluation the warranty liability of \$2,139,645. For the year ended December 31, 2011 there was a gain recognized from the revaluation of the warrant liability of \$546,999. For the year ended December 31, 2012 there was a gain recognized from the revaluation of the warrant liability of \$1,272,580. During the three months ended December 31, 2013, 1,146,662 of the warrants included in the warrant liability were exercised. The Company determined the fair value of the warrants exercised on the date of exercise and adjusted the related warrant liability accordingly. The adjusted fair value of the warrants exercised of \$765,997 was reclassified into additional paid-in capital. For the year ended December 31, 2013 there was a loss recognized from the revaluation of the warrant liability of \$6,911,583.

Dividends on the 8% Convertible Preferred Stock accrue at an annual rate of 8% of the original issue price and are payable in either cash or common stock. If the dividend is paid in common stock, the number of shares of common stock will equal the quotient of the amount of cash dividends divided by the market price of the stock on the dividend payment date. The dividends are payable quarterly on the 15th day after the quarter-end. The Company anticipates paying the dividends in common stock. The Company has a deficit and, as a result, the dividends will be recorded against additional paid-in capital. At March 31, 2010, the Company recognized dividends of \$34,794 which are included in dividends on preferred stock on the consolidated statement of operations. In April 2010, the Company issued 40,478 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of April 15, 2010. At June 30, 2010, the Company recognized dividends of \$219,391 which are included in dividends on preferred stock on the consolidated statement of operations. In July 2010, the Company issued 179,991 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of July 15, 2010. At September 30, 2010, the Company recognized dividends of \$111,484 which are included in dividends on preferred stock on the consolidated statement of operations. In October 2010, the Company issued 118,384 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of October 15, 2010. At December 31, 2010, the Company recognized dividends of \$79,748 which are included in dividends on preferred stock on the consolidated statement of operations. In January 2011, the Company issued 82,169 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of January 15, 2011. At March 31, 2011, the Company recognized dividends of \$69,934 which are included in dividends on preferred stock on the consolidated statement of operations. In April 2011, the Company issued 67,991 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of April 15, 2011. At June 30, 2011, the Company recognized dividends of \$64,224 which are included in dividends on preferred stock on the condensed consolidated statement of operations. In July 2011, the Company issued 63,043 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of July 15, 2011. At September 30, 2011, the Company recognized dividends of \$59,465 which are included in dividends on preferred stock on the condensed consolidated statement of operations. In October 2011, the Company issued 64,273 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of October 15, 2011. At December 31, 2011, the Company recognized dividends of \$53,385 which are included in dividends on preferred stock on the condensed consolidated statement of operations. In January 2012, the Company issued 64,183 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of January 15, 2012. At March 31, 2012, the Company recognized dividends of \$50,631 which are included in dividends on preferred stock on the consolidated statement of operations. In April 2012, the Company issued 58,490 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of April 16, 2012. At June 30, 2012, the Company recognized dividends of \$51,194 which are included in dividends on preferred stock on the consolidated statement of operations. In July 2012, the Company issued 61,424 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of July 16, 2012. At September 30, 2012, the Company recognized dividends of \$43,884 which are included in dividends on preferred stock on the consolidated statement of operations. In October 2012, the Company issued 69,222 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of October 15, 2012. At December 31, 2012, the Company recognized dividends of \$37,478 which are included in dividends on preferred stock on the consolidated statement of operations. In January 2013, the Company issued 61,022 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of January 15, 2013. At March 31, 2013, the Company recognized dividends of \$21,921 which are included in dividends on preferred stock on the consolidated statement of operations. In April 2013, the Company issued 29,384 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of April 15, 2013. At June 30, 2013, the Company recognized dividends of \$22,164 which are included in dividends on preferred stock on the consolidated statement of operations. In July 2013, the Company issued 34,598 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of July 15, 2013. At September 30, 2013, the Company recognized dividends of \$10,586 which are included in dividends on preferred stock on the consolidated statement of operations. In October 2013, the Company issued 12,066 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of October 15, 2013. At December 31, 2013, the Company recognized no dividends due because of the full conversion of preferred stock to common stock as of December 31, 2013.

During the three months ended September 30, 2010 there were 5,836,661 shares of the Company's preferred stock that converted into 5,836,661 shares of the Company's common stock. During the three months ended December 31, 2010 there were 2,056,665 shares of the Company's preferred stock that converted into 2,056,665 shares of the Company's common stock. During the three months ended March 31, 2011 there were 500,001 shares of the Company's redeemable preferred stock that converted into 499,999 shares of the Company's common stock. During the three months ended June 30, 2011 there were 671,665 shares of the Company's redeemable preferred stock that converted into 671,665 shares of the Company's common stock. During the three months ended September 30, 2011 there were 370,000 shares of the Company's redeemable preferred stock that converted into 370,000 shares of the Company's common stock. During the three months ended December 31, 2011 there were 316,667 shares of the Company's redeemable preferred stock that converted into 316,667 shares of the Company's common stock. During the three months ended March 31, 2012 there were 100,000 shares of the Company's redeemable preferred stock that converted into 100,000 shares of the Company's common stock. During the three months ended September 30, 2012 there were 490,000 shares of the Company's redeemable preferred stock that converted into 490,000 shares of the Company's common stock. During the three months ended December 31, 2012 there were 463,480 shares of the Company's redeemable preferred stock that converted into 463,480 shares of the Company's common stock. During the three months ended March 31, 2013 there were 593,000 shares of the Company's redeemable preferred stock that converted into 593,000 shares of the Company's common stock. During the three months ended June 30, 2013 there were 403,520 shares of the Company's redeemable preferred stock that converted into 403,520 shares of the Company's common stock. During the three months ended September 30, 2013 there were 734,999 shares of the Company's redeemable preferred stock that converted into 734,999 shares of the Company's common stock. During the three months ended December 31, 2013 there were 746,666 shares of the Company's redeemable preferred stock that converted into 746,666 shares of the Company's common stock. At December 31, 2013 there was no 8% Convertible Preferred Stock outstanding.

(j) On February 22, 2013, the Company entered into a Securities Purchase Agreement with certain accredited investors for the issuance and sale in a private placement of an aggregate of \$2,550,000 of Units at a purchase price of \$0.75 per Unit. Each Unit consists of one share of Series A 8% Convertible Preferred Stock, par value \$.001 per share, and a warrant to purchase one and one-quarter shares of the Company's common stock, par value \$.001 per share (subject to adjustment) at an exercise price of \$1.00 per whole share (subject to adjustment). The total Series A 8% Convertible Preferred Stock issued was 3,400,001 shares, and the total warrants were 4,250,000. The Company used the net proceeds of the private placement for working capital, FDA trials, securing licensing partnerships, and general corporate purposes.

The Company determined that warrants issued in February, 2013 with the Series A 8% Convertible Preferred Stock should be classified as liabilities in accordance with ASC 815 because the warrants in question contain exercise price reset features that require the exercise price of the warrants be adjusted if the Company issues certain other equity related instruments at a lower price per share.

The preferred stock was determined to have characteristics more akin to equity than debt. As a result, the conversion option was determined to be clearly and closely related to the preferred stock and therefore does not need to be bifurcated and classified as a liability. The proceeds received from the issuance of the preferred stock were first allocated to the fair value of the warrants with the remainder allocated to the preferred stock. The fair value of the preferred stock if converted on the date of issuance was greater than the value allocated to the preferred stock. As a result, a beneficial conversion amount was recorded upon issuance. The fair value of the warrants recorded from the February 2013 issuance was \$1,297,950 resulting in a beneficial conversion amount of \$1,025,950. The beneficial conversion has been recorded as a deemed dividend as of March 31, 2013 and is included in dividends on preferred stock on the consolidated statements of operations.

The value of the warrant liability was determined based on the Monte-Carlo Simulation model at the date the warrants were issued. The warrant liability is then revalued at each subsequent quarter. During the three months ended December 31, 2013, 2,400,000 of the warrants included in the warrant liability were exercised, resulting in 2,400,000 common shares being issued. The Company determined the fair value of the warrants exercised on the date of exercise and adjusted the related warrant liability accordingly. The adjusted fair value of the warrants exercised of \$2,016,000 was reclassified into additional paid-in capital. For the year ended December 31, 2013 there was a loss recognized from the revaluation of the warrant liability of \$3,886,360.

Dividends on the Series A 8% Convertible Preferred Stock accrue at an annual rate of 8% of the original issue price and are payable in either cash or common stock. If the dividend is paid in common stock, the number of shares of common stock will equal the quotient of the amount of cash dividends divided by the market price of the stock on the dividend payment date. The dividends are payable quarterly on the 15th day after the quarter-end. The Company anticipates paying the dividends in common stock although was required to pay the initial dividends due in cash. The Company has a deficit and, as a result, the

dividends are recorded against additional paid-in capital. At March 31, 2013, the Company recognized dividends of \$29,063 which are included in dividends on preferred stock on the consolidated statement of operations and were paid in April 2013. At June 30, 2013, the Company recognized dividends of \$50,860 which are included in dividends on preferred stock on the consolidated statement of operations. In July 2013, the Company issued 79,401 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of July 15, 2013. At September 30, 2013, the Company recognized dividends of \$28,104 which are included in dividends on preferred stock on the consolidated statement of operations. In October 2013, the Company issued 32,033 shares of common stock in dividends on preferred stock in lieu of cash dividends due as of October 15, 2013. At December 31, 2013, the Company recognized no dividends due because of the full conversion of preferred stock to common stock as of January 15, 2014.

During the three months ended September 30, 2013 there were 441,667 shares of the Company's Series A 8% Convertible Preferred Stock that converted into 441,667 shares of the Company's common stock. During the three months ended December 31, 2013 there were 2,925,000 shares of the Company's Series A 8% Convertible Preferred Stock that converted into 2,925,000 shares of the Company's common stock. At January 15, 2014 there was no Series A 8% Convertible Preferred Stock outstanding.

5. Stock Incentive Plan and Warrants

The Company maintains two long-term incentive compensation plans, the Provectus Pharmaceuticals, Inc. 2002 Stock Plan, which provided for the issuance of 18,450,000 shares of common stock pursuant to stock options, and the 2012 Stock Plan, which provides for the issuance of up to 20,000,000 shares of common stock pursuant to stock options, stock appreciation rights, stock purchase rights and long-term performance awards granted to key employees and directors of and consultants to the Company.

Options granted under the 2002 Stock Plan were either "incentive stock options" within the meaning of Section 422 of the Internal Revenue Code or options which are not incentive stock options. Options granted under the 2012 Stock Plan may be either "incentive stock options" within the meaning of Section 422 of the Internal Revenue Code or options which are not incentive stock options. The stock options are exercisable over a period determined by the Board of Directors (through its Compensation Committee), but generally no longer than 10 years after the date they are granted.

For stock options granted to employees during 2013, 2012 and 2011, the Company has estimated the fair value of each option granted using the Black-Scholes option pricing model with the following assumptions:

	2013	2012	2011
Weighted average fair value per options granted	\$0.57	\$0.73	\$0.78
Significant assumptions (weighted average) risk-free interest rate at grant date	0.25%	0.25%	0.25%
Expected stock price volatility	83% – 85%	83% – 87%	87% – 91%
Expected option life (years)	10	10	10

On March 1, 2004, the Company issued 1,200,000 stock options to employees. The options vest over three years with 225,000 options vesting on the date of grant. The exercise price is the fair market price on the date of issuance. On May 27, 2004, the Company issued 100,000 stock options to the Board of Directors. The options vested immediately on the date of grant. The exercise price is the fair market price on the date of issuance. On June 28, 2004, the Company issued 100,000 stock options to an employee. The options vest over four years with 25,000 options vesting on the date of grant. The exercise price is the fair market price on the date of issuance.

On January 7, 2005, the Company issued 1,200,000 stock options to employees. The options vest over four years with no options vesting on the date of grant. The exercise price is the fair market price on the date of issuance. On May 19, 2005, the Company issued 100,000 stock options to the Board of Directors. The options vested immediately on the date of grant. The exercise price is the fair market price on the date of issuance. On May 25, 2005, the Company issued 1,200,000 stock options to employees. The options vest over three years with no options vesting on the date of grant. The exercise price is \$0.75 which is greater than the fair market price on the date of issuance. On December 9, 2005, the Company issued 775,000 stock options to employees. The options vest over three years with no options vesting on the date of grant. The exercise price is the fair market price on the date of issuance. During 2005, an employee of the Company exercised 26,516 options at an exercise price of \$1.10 per share of common stock for \$29,167.

Two employees of the Company exercised a total of 114,979 options during the three months ended March 31, 2006 at an exercise price of \$1.10 per share of common stock for \$126,477. On June 23, 2006, the Company issued 4,000,000 stock options to employees. The options vest over three years with no options vesting on the date of grant. The exercise price is the

fair market price on the date of issuance. On June 23, 2006, the Company issued 200,000 stock options to its Members of the Board. The options vested on the date of grant. The exercise price is the fair market price on the date of issuance. One employee of the Company exercised a total of 7,166 options during the three months ended June 30, 2006 at an exercise price of \$1.10 per share of common stock for \$7,882 and another employee of the Company exercised a total of 12,500 options during the three months ended June 30, 2006 at an exercise price of \$0.32 per share of common stock for \$4,000. One employee of the Company exercised a total of 14,000 options during the three months ended September 30, 2006 at an exercise price of \$1.10 per share of common stock for \$15,400 and another employee of the Company exercised a total of 3,125 options during the three months ended September 30, 2006 at an exercise price of \$0.32 per share of common stock for \$1,000. One employee of the Company exercised a total of 7,000 options during the three months ended December 31, 2006 at an exercise price of \$1.10 per share of common stock for \$7,700.

One employee of the Company exercised a total of 120,920 options during the three months ended March 31, 2007 at an exercise price of \$1.10 per share of common stock for \$133,012. Another employee of the Company exercised a total of 9,375 options during the three months ended March 31, 2007 at an exercise price of \$0.32 per share of common stock for \$3,000. One employee of the Company exercised a total of 100,000 options during the three months ended September 30, 2007 at an exercise price of \$0.64 per share of common stock for \$64,000. Another employee of the Company exercised a total of 25,000 options during the three months ended September 30, 2007 at an exercise price of \$0.32 per share of common stock for \$8,000. One employee of the Company exercised a total of 50,000 options during the three months ended December 31, 2007 at an exercise price of \$0.64 per share of common stock for \$32,000. Another employee of the Company exercised a total of 6,250 options during the three months ended December 31, 2007 at an exercise price of \$0.32 per share of common stock for \$2,000. On June 21, 2007, the Company issued 200,000 stock options to its Members of the Board. The options vested on the date of grant. The exercise price is the fair market price on the date of issuance.

One employee of the Company exercised a total of 193,281 options during the three months ended June 30, 2008 at an exercise price of \$0.32 to \$1.02 per share of common stock for \$109,600. Another employee of the Company exercised a total of 44,795 options during the three months ended June 30, 2008 at an exercise price of \$1.10 per share of common stock for \$49,275. One employee of the Company exercised a total of 66,666 options during the three months ended December 31, 2008 at an exercise price of \$0.94 per share of common stock for \$62,666. On June 3, 2008, the Company issued 50,000 stock options to a newly appointed member of the board of directors. The options vested on the date of grant. The exercise price is the fair market price on the date of issuance. On June 27, 2008, the Company issued 200,000 stock options to its re-elected members of the board of directors. The options vested on the date of grant. The exercise price is the fair market price on the date of issuance.

One employee of the Company exercised a total of 156,250 options during the three months ended June 30, 2009 at an exercise price of \$0.64 per share of common stock for \$100,000. Another employee of the Company exercised a total of 150,000 options during the three months ended June 30, 2008 at an exercise price of \$0.64 per share of common stock for \$96,000. On June 19, 2009, the Company issued 250,000 stock options to its re-elected Members of the Board. The options vested on the date of grant. The exercise price is the fair market price on the date of issuance, and all options were outstanding at June 30, 2009. One employee of the Company exercised options during the three months ended September 30, 2009 at an exercise price of \$1.02 per share of common stock for \$20,400 for 20,000 options and an exercise price of \$0.94 per share of common stock for \$47,000 for 50,000 options. One employee of the Company exercised options during the three months ended December 31, 2009 at an exercise price of \$1.02 per share of common stock for \$15,300 for 15,000 options and an exercise price of \$0.94 per share of common stock for \$78,334 for 83,334 options.

One employee of the Company exercised 105,469 options at an exercise price of \$0.64 per share of common stock for \$67,500 and 52,419 options at an exercise price \$0.75 per share of common stock for \$39,315 during the three months ended June 30, 2010. On June 18, 2010, the Company issued 250,000 stock options to its re-elected members of the board. The options vested on the date of grant. The exercise price is the fair market price on the date of issuance, and all options were outstanding at June 30, 2010. One employee of the Company exercised 75,000 options at an exercise price of \$1.10 per share of common stock for \$82,500 and 100,000 options at an exercise price \$1.00 per share of common stock for \$100,000 during the three months ended September 30, 2010. On July 22, 2010, the Company issued 4,000,000 stock options to its employees. The options vested on the date of grant. The exercise price is the fair market price on the date of issuance, and 3,400,000 options were outstanding at December 31, 2010. One employee of the Company exercised 500,000 options at an exercise price of \$1.00 per share of common stock for \$500,000 during the three months ended December 31, 2010. Another employee of the Company exercised 133,333 options at an exercise price of \$0.75 per share of common stock for \$100,000 during the three months ended December 31, 2010.

One employee of the Company exercised 133,333 options at an exercise price of \$0.75 per share of common stock for \$100,000 during the three months ended March 31, 2011. One employee of the Company exercised 350,000 options at an

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exercise price of \$1.00 per share of common stock for \$350,000 during the three months ended June 30, 2011. Another employee of the Company exercised 133,333 options at an exercise price of \$0.75 per share of common stock for \$100,000 during the three months ended June 30, 2011. On July 6, 2011, the Company issued 250,000 stock options to its re-elected members of the board. On July 12, 2011, the Company issued 50,000 stock options to a newly appointed member of the board. On September 6, 2011, the Company issued 4,000,000 stock options to its employees. All of the stock options issued in 2011 vest on the date of grant and have an exercise price equal to the fair market price on the date of issuance. One employee of the Company exercised 100,000 options at an exercise price of \$1.00 per share of common stock for \$100,000 and 100,000 options at an exercise price of \$0.93 per share of common stock for \$93,000 during the three months ended September 30, 2011. One employee of the Company exercised 300,000 options at an exercise price of \$0.93 per share of common stock for \$279,000 and 100,000 options at an exercise price of \$0.75 per share of common stock for \$75,000 during the three months ended December 31, 2011. Another employee of the Company exercised 75,000 options at an exercise price of \$0.32 per share of common stock for \$24,000 and 25,000 options at an exercise price of \$0.60 per share of common stock for \$15,000 during the three months ended December 31, 2011.

On May 14, 2012, the Company issued 50,000 stock options to a newly appointed member of the board. On June 28, 2012, the Company issued 200,000 stock options to its re-elected members of the board. All of the stock options issued in 2012 vest on the date of grant and have an exercise price equal to the fair market price on the date of issuance.

One employee of the Company exercised 18,750 options at an exercise price of \$0.32 per share of common stock for \$6,000 and 25,000 options at an exercise price of \$0.60 per share of common stock for \$15,000 during the three months ended June 30, 2013. One former non-employee member of the board forfeited 25,000 stock options on May 29, 2013. On August 19, 2013, the Company issued 250,000 stock options to its re-elected members of the board. All of the stock options issued in 2013 vest on the date of grant and have an exercise price equal to the fair market price on the date of issuance.

The compensation cost relating to share-based payment transactions is measured based on the fair value of the equity or liability instruments issued. For purposes of estimating the fair value of each stock option on the date of grant, the Company utilized the Black-Scholes option-pricing model. The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions including the expected volatility factor of the market price of the Company's common stock (as determined by reviewing its historical public market closing prices). Because the Company's employee stock options have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee and board member stock options. Included in the results for the year ended December 31, 2013, is \$142,310 of stock-based compensation expense which relates to the fair value of stock options vested in 2013. Included in the results for the year ended December 31, 2012, is \$183,028 of stock-based compensation expense which relates to the fair value of stock options vested in 2012. Included in the results for the year ended December 31, 2011, is \$3,368,950 of stock-based compensation expense which related to the fair value of stock options vested in 2011.

The following table summarizes the options granted, exercised, outstanding and exercisable as of December 31, 2011, 2012 and 2013:

	Shares	Exercise Price Per Share	Weighted Average Exercise Price
Outstanding at January 1, 2011	11,907,622	\$0.32 – 1.50	\$ 0.98
Granted	4,300,000	\$0.93 – 1.04	\$ 0.94
Exercised	(1,316,666)	\$0.32 – 1.00	\$ 0.86
Forfeited	—	—	—
Outstanding and exercisable at December 31, 2011	14,890,956	\$0.32 – 1.50	\$ 0.98
Outstanding at January 1, 2012	14,890,956	\$0.32 – 1.50	\$ 0.98
Granted	250,000	\$0.84 – 0.93	\$ 0.86
Exercised	—	—	—
Forfeited	—	—	—
Outstanding and exercisable at December 31, 2012	15,140,956	\$0.32 – 1.50	\$ 0.97
Outstanding at January 1, 2013	15,140,956	\$0.32 – 1.50	\$ 0.97
Granted	250,000	\$ 0.67	\$ 0.67
Exercised	(43,750)	\$0.32 – 0.60	\$ 0.48
Forfeited	(25,000)	\$ 0.60	\$ 0.60
Outstanding and exercisable at December 31, 2013	15,322,206	\$0.62 – 1.50	\$ 0.97

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The following table summarizes information about stock options outstanding at December 31, 2013 in order of issuance from oldest to newest:

Exercise Price	Number Outstanding at December 31, 2013	Weighted Average Remaining contractual Life	Outstanding Weighted Average Exercise price	Number Exercisable at December 31, 2013	Exercisable Weighted Average Exercise Price
\$1.10	789,624	0.17 years	\$ 1.10	789,624	\$ 1.10
\$0.95	100,000	0.42 years	\$ 0.95	100,000	\$ 0.95
\$1.25	100,000	0.50 years	\$ 1.25	100,000	\$ 1.25
\$0.64	600,000	1.00 years	\$ 0.64	600,000	\$ 0.64
\$0.75	722,582	1.42 years	\$ 0.75	722,582	\$ 0.75
\$0.94	575,000	1.92 years	\$ 0.94	575,000	\$ 0.94
\$1.02	4,135,000	2.50 years	\$ 1.02	4,135,000	\$ 1.02
\$1.50	200,000	3.50 years	\$ 1.50	200,000	\$ 1.50
\$1.16	50,000	4.42 years	\$ 1.16	50,000	\$ 1.16
\$1.00	150,000	4.50 years	\$ 1.00	150,000	\$ 1.00
\$1.04	250,000	5.50 years	\$ 1.04	250,000	\$ 1.04
\$1.16	250,000	6.50 years	\$ 1.16	250,000	\$ 1.16
\$1.00	3,000,000	6.50 years	\$ 1.00	3,000,000	\$ 1.00
\$1.04	250,000	7.50 years	\$ 1.04	250,000	\$ 1.04
\$0.99	50,000	7.50 years	\$ 0.99	50,000	\$ 0.99
\$0.93	3,600,000	7.67 years	\$ 0.93	3,600,000	\$ 0.93
\$0.93	50,000	8.38 years	\$ 0.93	50,000	\$ 0.93
\$0.84	200,000	8.50 years	\$ 0.84	200,000	\$ 0.84
\$0.67	250,000	9.71 years	\$ 0.67	250,000	\$ 0.67
	<u>15,322,206</u>	<u>4.69 years</u>	<u>\$ 0.97</u>	<u>15,322,206</u>	<u>\$ 0.97</u>

The weighted-average grant-date fair value of options granted during 2013 was \$0.57. The total intrinsic value of options exercised during the year ended December 31, 2013 which were in the money was \$7,000.

The weighted-average grant-date fair value of options granted during 2012 was \$0.73. There were no options exercised during the year ended December 31, 2012.

The weighted-average grant-date fair value of options granted during 2011 was \$0.78. The total intrinsic value of options exercised during the year ended December 31, 2011 which were in the money was \$108,583.

The following is a summary of nonvested stock option activity for the year ended December 31, 2013:

	Number of Shares	Weighted Average Grant-Date Fair Value
Nonvested at December 31, 2012	—	\$ —
Granted	250,000	\$ 0.57
Vested	(250,000)	\$ 0.57
Canceled	—	\$ —
Nonvested at December 31, 2013	<u>—</u>	<u>\$ —</u>

As of December 31, 2013, there was no unrecognized compensation cost related to nonvested share-based compensation arrangements granted under the Plan.

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The following is a summary of the aggregate intrinsic value of shares outstanding and exercisable at December 31, 2013. The aggregate intrinsic value of stock options outstanding and exercisable is defined as the difference between the market value of the Company's stock as of the end of the period and the exercise price of the stock options which are in the money.

	Number of Shares	Aggregate Intrinsic Value
Outstanding and Exercisable at December 31, 2013	<u>15,322,206</u>	<u>\$ 22,056,294</u>

The following table summarizes the warrants granted, exercised, outstanding and exercisable as of December 31, 2011, 2012 and 2013.

	Warrants	Exercise Price Per Warrant	Weighted Average Exercise Price
Outstanding at January 1, 2011	15,422,719	\$0.75 – 2.00	\$ 1.09
Granted	14,484,601	\$0.94 – 2.00	\$ 1.15
Exercised	(3,820,185)	\$0.90 – 0.94	\$ 0.93
Forfeited	<u>(967,888)</u>	<u>\$0.75 – 2.00</u>	<u>\$ 1.06</u>
Outstanding and exercisable at December 31, 2011	<u>25,119,247</u>	<u>\$0.91 – 2.00</u>	<u>\$ 1.15</u>
Outstanding at January 1, 2012	25,119,247	\$0.91 – 2.00	\$ 1.15
Granted	10,399,414	\$0.68 – 1.50	\$ 1.00
Exercised	—	—	—
Forfeited	<u>(5,480,644)</u>	<u>\$0.91 – 1.50</u>	<u>\$ 1.29</u>
Outstanding and exercisable at December 31, 2012	<u>30,038,017</u>	<u>\$0.68 – 2.00</u>	<u>\$ 1.05</u>
Outstanding at January 1, 2013	30,038,017	\$0.68 – 2.00	\$ 1.05
Granted	53,675,050	\$0.68 – 1.12	\$ 1.00
Exercised	(8,379,845)	\$0.68 – 1.25	\$ 0.93
Forfeited	<u>(2,295,806)</u>	<u>\$0.68 – 1.12</u>	<u>\$ 0.87</u>
Outstanding and exercisable at December 31, 2013	<u>73,037,416</u>	<u>\$0.68 – 2.00</u>	<u>\$ 1.03</u>

The following table summarizes information about warrants outstanding at December 31, 2013.

Exercise Price	Number Outstanding and Exercisable at December 31, 2013	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price
\$0.68	1,690,911	2.00	\$ 0.68
\$0.95	982,401	0.87	\$ 0.95
\$1.00	59,170,338	4.07	\$ 1.00
\$1.12	3,760,036	1.94	\$ 1.12
\$1.15	160,000	1.50	\$ 1.15
\$1.25	5,623,729	1.73	\$ 1.25
\$1.45	80,000	1.50	\$ 1.45
\$1.50	1,170,001	2.17	\$ 1.50
\$1.75	200,000	2.00	\$ 1.75
\$2.00	200,000	2.25	\$ 2.00
	<u>73,037,416</u>	<u>3.64</u>	<u>\$ 1.03</u>

6. Convertible Debt

(a) Pursuant to a Convertible Secured Promissory Note and Warrant Purchase Agreement dated November 26, 2002 (the "Purchase Agreement") between the Company and Gryffindor Capital Partners I, L.L.C., a Delaware limited liability company ("Gryffindor"), Gryffindor purchased the Company's \$1 million Convertible Secured Promissory Note dated November 26, 2002 (the "Note"). The Note bore interest at 8% per annum, payable quarterly in arrears, and was due and payable in full on November 26, 2004. Subject to certain exceptions, the Note was convertible into shares of the Company's common stock on or after November 26, 2003, at which time the principal amount of the Note was convertible into common stock at the rate of one share for each \$0.737 of principal so converted and any accrued but unpaid interest on the Note was convertible at the rate of one share for each \$0.55 of accrued but unpaid interest so converted. The Company's obligations under the Note were secured by a first priority security interest in all of the Company's assets, including the capital stock of the Company's wholly owned subsidiary Xantech Pharmaceuticals, Inc., a Tennessee corporation ("Xantech"). In addition, the Company's obligations to Gryffindor were guaranteed by Xantech, and Xantech's guarantee was secured by a first priority security interest in all of Xantech's assets.

Pursuant to the Purchase Agreement, the Company also issued to Gryffindor and to another individual Common Stock Purchase Warrants dated November 26, 2002 (the "Warrants"), entitling these parties to purchase, in the aggregate, up to 452,919 shares of common stock at a price of \$0.001 per share. Simultaneously with the completion of the transactions described in the Purchase Agreement, the Warrants were exercised in their entirety. The \$1,000,000 in proceeds received in 2002 was allocated between the long-term debt and the warrants on a pro-rata basis. The value of the warrants was determined using a Black-Scholes option pricing model. The allocated fair value of these warrants was \$126,587 and was recorded as a discount on the related debt and amortized over the life of the debt using the effective interest method.

In 2003, an additional \$25,959 of principal was added to the 2002 convertible debt outstanding.

Pursuant to an agreement dated November 26, 2004 between the Company and Gryffindor, the Company issued Gryffindor a Second Amended and Restated Senior Secured Convertible Note dated November 26, 2004 in the amended principal amount of \$1,185,959 which included the original note principal plus accrued interest. The second amended note bore interest at 8% per annum, payable quarterly in arrears, was due and payable in full on November 26, 2005, and amended and restated the amended note in its entirety. Subject to certain exceptions, the Note was convertible into shares of the Company's common stock on or after November 26, 2004, at which time the principal amount of the Note was convertible into common stock at the rate of one share for each \$0.737 of principal so converted and any accrued but unpaid interest on the Note was convertible at the rate of one share for each \$0.55 of accrued but unpaid interest so converted. The Company issued warrants to Gryffindor to purchase up to 525,000 shares of the Company's common stock at an exercise price of \$1.00 per share in satisfaction of issuing Gryffindor the Second Amended and Restated Senior Secured Convertible Note dated November 26, 2004. The value of these warrants was determined to be \$105,250 using a Black-Scholes option-pricing model and was recorded as a discount on the related debt and was amortized over the life of the debt using the effective interest method. Amortization of \$95,157 has been recorded as additional interest expense as of December 31, 2005. The Company recorded additional expense of \$36,945 related to the beneficial conversion feature of the interest on the Gryffindor convertible debt as of December 31, 2005.

On November 26, 2005 the Company entered into a redemption agreement with Gryffindor to pay \$1,185,959 of the Gryffindor convertible debt and accrued interest of \$94,877. Also on November 26, 2005 the Company issued a legal assignment attached to and made a part of that certain Second Amended and Restated Senior Secured Convertible Note dated November 26, 2004 in the original principal amount of \$1,185,959 together with interest of \$94,877 paid to the order of eight investors dated November 26, 2005 for a total of \$1,280,836. The Company subsequently entered into debt conversion agreements with seven of the investors for an aggregate of \$812,000 of convertible debt which was converted into 1,101,764 shares of common stock at \$0.737 per share. As of December 31, 2005, the Company had \$468,836 in principal and \$3,647 in accrued interest owed to holders of the convertible debentures due on November 26, 2006. At December 31, 2005, the Company recorded additional interest expense of \$2,584 related to the beneficial conversion feature of the interest on the November 2005 convertible debt. The \$1,280,836 in principal was issued when the conversion price was lower than the market value of the Company's common stock on the date of issue. As a result, a discount of \$404,932 was recorded for this beneficial conversion feature. The debt discount of \$404,932 is being amortized over the life of the debt using the effective interest method. At December 31, 2005, \$270,924 of the debt discount has been amortized which includes \$256,711 of the unamortized portion of the debt discount related to the debt which was converted. In conjunction with the November 26, 2005 financing, the Company incurred debt issuance costs consisting of cash of \$128,082, 356,335 shares of common stock valued at \$345,645 and 1,000,000 warrants valued at \$789,000. The warrants are exercisable over five years, have an exercise price of \$1.00, a fair market value of \$0.79 and were valued using the Black-Scholes option-pricing model. The total debt issuance costs of \$1,262,727 were recorded as an asset and amortized over the term of the debt. At December 31, 2005,

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\$835,294 of the debt issuance costs have been amortized which includes \$800,520 related to the debt that was converted as of December 31, 2005. The 356,335 shares of common stock were not issued as of December 31, 2005 and therefore have been recorded as an accrued liability at December 31, 2005.

In May 2006, the Company entered into a debt conversion agreement with one of the November 2005 accredited investors for \$86,586 of its convertible debt which was converted into 117,483 shares of common stock at \$0.737 per share. In addition, accrued interest expense of \$3,078 due at the time of the debt conversion was paid in 5,597 shares of common stock. In June 2006, the Company entered into a debt conversion agreement with one of the November 2005 accredited investors for \$382,250 of convertible debt which was converted into 518,657 shares of common stock at \$0.737 per share. In addition, accrued interest expense of \$15,800 due at the time of the debt conversion was paid in 28,727 shares of common stock. As of December 31, 2006, all principal and accrued interest owed to holders of the November 2005 convertible debentures had been converted. At March 31, 2006, the Company recorded additional interest expense of \$8,354 related to the beneficial conversion feature of the interest on the November 2005 convertible debt. At June 30, 2006, the Company recorded additional interest expense of \$8,093 related to the beneficial conversion feature of the interest on the November 2005 convertible debt. In 2006 the remaining \$417,886 of debt issuance costs have been amortized which includes \$189,948 of the unamortized portion of the deferred loan costs related to the converted debt at the time of conversion. In 2006 the remaining debt discount of \$134,008 has been amortized.

(b) On November 19, 2003, the Company completed a short-term unsecured debt financing in the aggregate amount of \$500,000. The notes bear interest of 8% and were due in full on November 19, 2004. The notes were convertible into common shares at a conversion rate equal to the lower of (i) 75% of the average market price for the 20 trading days ending on the 20th trading day subsequent to the effective date or (ii) \$0.75 per share. Pursuant to the note agreements, the Company also issued warrants to purchase up to 500,000 shares of the Company's common stock at an exercise price of \$1.00 per share. During 2005, 52,000 of the warrants were exercised and the remaining warrants expired on November 19, 2005.

The \$500,000 proceeds received was allocated between the debt and the warrants on a pro-rata basis. The value of the warrants was determined using a Black-Scholes option-pricing model. The allocated fair value of these warrants was \$241,655 and was recorded as a discount to the related debt. In addition, the conversion price was lower than the market value of the Company's common stock on the date of issue. As a result, an additional discount of \$258,345 was recorded for this beneficial conversion feature. The combined debt discount of \$500,000 was being amortized over the term of the debt using the effective interest method.

In conjunction with the debt financing, the Company issued warrants to purchase up to 100,000 shares of the Company's common stock at an exercise price of \$1.25 per share in satisfaction of a finder's fee. The value of these warrants was determined to be \$101,000 using a Black-Scholes option-pricing model. In addition, the Company incurred debt issuance costs of \$69,530 which were payable in cash. Total debt issuance costs of \$170,530 were recorded as an asset and amortized over the term of the debt. In 2004, in conjunction with the June 25, 2004 transaction (Note 4(1)), the Company entered into a redemption agreement for its \$500,000 of short-term convertible debt. Payments on the convertible debt corresponded to payments received from the sale of common stock. As a result, the unamortized portion of the debt discount at the date of extinguishment of \$193,308 and the unamortized portion of the deferred loan costs of \$65,930 were recorded as a loss on extinguishment of debt. In addition to principal payments, the redemption payments included accrued interest and a premium payment of \$100,519. This premium payment has been recorded as a loss on extinguishment. As part of this redemption, the Company repurchased the beneficial conversion feature amount of \$258,345 in 2004.

(c) On July 28, 2004, the Company entered into an agreement to issue 8% convertible debentures to Cornell in the amount of \$375,000 which was due together with interest on July 28, 2007. This debt had a subordinated security interest in the assets of the Company. The Company issued a second secured convertible debenture on October 7, 2004 which had the same conversion terms as the prior debenture and was issued on the date the Company filed a registration statement for the shares underlying both debentures. This was due together with interest on October 7, 2007 and had a subordinated security interest in the assets of the Company. The debentures were convertible into common stock at a price per share equal to the lesser of (a) an amount equal to 120% of the closing Volume Weighted Average Price (VWAP) of the common stock as of the Closing Date (\$1.88 on Closing Date) or (b) an amount equal to 80% of the lowest daily VWAP of the Company's common stock during the 5 trading days immediately preceding the conversion date. There was a floor conversion price of \$.75 until December 1, 2004.

The accounting guidance requires the issuer to assume that the holder will not convert the instrument until the time of the most beneficial conversion. The accounting guidance also requires that if the conversion terms are based on an unknown future amount, which is the case in item (b) above, the calculation should be performed using the commitment date which in this case is July 28, 2004 and October 7, 2004, respectively. As a result, the beneficial conversion amount was computed

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using 80% of the lowest fair market value for the stock for the five days preceding July 28, 2004 and October 7, 2004, respectively, which resulted in a beneficial conversion amount of \$254,006 and \$106,250, respectively. The beneficial conversion amount was being amortized over the term of the debt which was three years.

In conjunction with the debt financing, the Company issued warrants to purchase up to 150,000 shares of the Company's common stock at an exercise price of \$1.00 per share in satisfaction of a finder's fee. The value of warrants was determined to be \$144,000 using a Black-Scholes option-pricing model. In addition, the Company incurred debt issuance costs of \$162,500 which were payable in cash. Total debt issuance costs of \$306,500 were recorded as an asset and amortized over the term of the debt.

In February 2005, the Company entered into a redemption agreement with Cornell Capital Partners to pay \$50,000 of the Cornell convertible debt. As a result, the unamortized portion of the debt discount of \$27,715 and deferred loan costs of \$20,702, which related to this amount at the date of extinguishments, were recorded as a loss on extinguishment of debt. The Company also paid a \$5,000 prepayment penalty which has been recorded as loss on extinguishment of debt. As part of this redemption, the Company has repurchased the beneficial conversion feature related to the redeemed amount of \$16,449.

In March 2005, the Company entered into a debt conversion agreement with Cornell Capital Partners for \$50,000 of its convertible debt which was converted into 66,667 shares of common stock at \$0.75 per share. As a result of this conversion, the unamortized portion of the debt discount of \$24,890 and deferred loan costs of \$18,779, which related to this amount at the date of conversion, have been recorded as additional interest expense.

In April 2005, the Company entered into a redemption agreement with Cornell Capital Partners to pay \$650,000 of the Cornell convertible debt. As a result, the unamortized portion of the debt discount of \$233,425 and deferred loan costs of \$205,741, which related to this amount at the date of extinguishments, were recorded as a loss on extinguishment of debt. The Company also paid a \$65,000 prepayment penalty which has been recorded as loss on extinguishment of debt. As part of this redemption, the Company has repurchased the beneficial conversion feature related to the redeemed amount of \$127,679.

(d) In March 2005, the Company entered into agreements to issue Senior Convertible Debentures to two (2) accredited investors with Network 1 Financial Securities, Inc. in the aggregate amount of \$450,000. This debt has a security interest in the assets of the Company, a maturity date of March 30, 2007, and is convertible into shares of the Company's common stock at a per share conversion price of \$0.75. In April 2005, the Company entered into agreements to issue Senior Convertible Debentures to five (5) accredited investors in the aggregate amount of \$2,700,000. This debt has a security interest in the assets of the Company, a maturity date of March 30, 2007, and is convertible into shares of the Company's common stock at a per share conversion price of \$0.75.

The Company was obligated to pay the principal of the Senior Convertible Debentures in installments as follows: Twelve (12) equal monthly payments of principal (the "Monthly Amount") plus, to the extent not otherwise paid, accrued but unpaid interest plus any other obligations of the Company to the Investor under this Debenture, the Purchase Agreement, or the Registration Rights Agreement, or otherwise. The first such installment payment was due and payable on March 30, 2006, and subsequent installments shall be due and payable on the thirtieth (30th) day of each succeeding month thereafter (each a "Payment Date") until the Company's obligations under this Debenture is satisfied in full. The Company shall have the option to pay all or any portion of any Monthly Amount in newly issued, fully paid and nonassessable shares of Common Stock, with each share of Common Stock having a value equal to (i) eighty-five percent (85%) multiplied by (ii) the Market Price as of the third (3rd) Trading Day immediately preceding the Payment Date (the "Payment Calculation Date").

Interest at the greater of (i) the prime rate (adjusted monthly), plus 4% and (ii) 8% was due on a quarterly basis. At the time the interest was payable, upon certain conditions, the Company had the option to pay all or any portion of accrued interest in either cash or shares of the Company's common stock valued at 85% multiplied by the market price as of the third trading date immediately preceding the interest payment date.

The Company could prepay the Senior Convertible Debentures in full by paying the holders the greater of (i) 125% multiplied by the sum of the total outstanding principal, plus accrued and unpaid interest, plus default interest, if any or (ii) the highest number of shares of common stock issuable upon conversion of the total amount calculated pursuant to (i) multiplied by the highest market price for the common stock during the period beginning on the date until prepayment.

On or after any event or series of events which constitutes a fundamental change, the holder could, in its sole discretion, require the Company to purchase the debentures, from time to time, in whole or in part, at a purchase price equal to 110% multiplied by the sum of the total outstanding principal, plus accrued and unpaid interest, plus any other obligations otherwise due under the debenture. Under the senior convertible debentures, fundamental change means (i) any person becomes a beneficial owner of securities representing 50% or more of the (a) outstanding shares of common stock or (b) the

combined voting power of the then outstanding securities; (ii) a merger or consolidation whereby the voting securities outstanding immediately prior thereto fail to continue to represent at least 50% of the combined voting power of the voting securities immediately after such merger or consolidation; (iii) the sale or other disposition of all or substantially all or the Company's assets; (iv) a change in the composition of the Board within two years which results in fewer than a majority of directors are directors as of the date of the debenture; (v) the dissolution or liquidation of the Company; or (vi) any transaction or series of transactions that has the substantial effect of any of the foregoing.

The Purchasers of the \$3,150,000 in Senior Convertible Debentures also purchased Class A Warrants and Class B Warrants under the Securities Purchase Agreement. Class A Warrants are exercisable at any time between March 10, 2005 through and including March 30, 2010 depending on the particular Purchaser. Class B Warrants were exercisable for a period through and including 175 days after an effective registration of the common stock underlying the warrants, which began June 20, 2005 and ended December 12, 2005. The range of the per share exercise price of a Class A Warrant is \$0.93 to \$0.99 and the range of the per share exercise price of the Class B Warrant was \$0.8925 to \$0.945.

The Purchasers of the Senior Convertible Debentures received a total of 4,200,000 Class A Warrants and a total of 2,940,000 Class B Warrants. 1,493,333 of the Class B Warrants were exercised in December, 2005 for proceeds of \$1,122,481. The warrant holders were given an incentive to exercise their warrants due to the lowering of the exercise price to \$0.75. Interest expense of \$236,147 was recorded to recognize expense related to this conversion incentive. The remaining Class B Warrants were forfeited in December, 2005 at the expiration of their exercise period.

The \$3,150,000 proceeds received in March and April 2005 was allocated between the debt and the warrants on a pro-rata basis. The value of the warrants was determined using a Black-Scholes option-pricing model. The allocated fair value of these warrants was \$1,574,900 and was recorded as a discount to the related debt. In addition, the conversion prices were lower than the market value of the Company's common stock on the date of issue. As a result, an additional discount of \$1,228,244 was recorded for this beneficial conversion feature. The combined debt discount of \$2,803,144 was being amortized over the life of the debt using the effective interest method.

In June 2005, the Company entered into a debt conversion agreement with one of the April accredited investors for \$150,000 of its convertible debt which was converted into 200,000 shares of common stock at \$0.75 per share, and \$2,833 of accrued interest was converted into 3,777 shares of common stock at \$0.75 per share. In July 2005, the Company entered into a debt conversion agreement with two of the April accredited investors for an aggregate of \$350,000 of convertible debt which was converted into 466,666 shares of common stock at \$0.75 per share. In September 2005, the Company entered into a debt conversion agreement with one of the March accredited investors for \$400,000 of its convertible debt which was converted into 533,333 shares of common stock at \$0.75 per share. In October 2005, the Company entered into a debt conversion agreement with two of the March accredited investors for an aggregate of \$100,000 of convertible debt which was converted into 133,334 shares of common stock at \$0.75 per share. In November 2005, the Company entered into a debt conversion agreement with three of the April accredited investors for an aggregate of \$675,000 of convertible debt which was converted into 900,000 shares of common stock at \$0.75 per share.

In conjunction with the financing, the Company incurred debt issuance costs consisting of \$387,500 in cash and 980,000 of warrants valued at \$426,700. The warrants are exercisable over five years, have exercise prices ranging from \$0.98—\$1.23, fair market values ranging from \$0.42—\$0.44 and were valued using the Black-Scholes option pricing model. The total debt issuance costs of \$814,200 were recorded as an asset and amortized over the term of the debt.

The Company chose to pay the quarterly interest due at June 30, 2005, September 30, 2005 and December 31, 2005 in common stock instead of cash. As a result, accrued interest at June 30, 2005 of \$78,904 was paid in 165,766 shares of common stock resulting in additional interest expense of \$28,843. 159,780 shares were issued July 11, 2005 and the remaining 5,986 shares were issued November 7, 2005. The accrued interest due September 30, 2005 of \$72,985 was converted into 97,955 shares of common stock resulting in additional interest expense of \$15,299. 66,667 of these shares were issued on September 30, 2005 and the remaining 31,288 shares were issued October 20, 2005. The interest due December 31, 2005 of \$50,486 was converted into 65,742 shares of common stock resulting in additional interest expense of \$10,922. The 65,742 shares were not issued as of December 31, 2005 and were recorded in accrued liabilities at December 31, 2005. The shares were issued January 9, 2006.

In January 2006, the Company entered into a debt conversion agreement with one of the March 2005 accredited investors for \$250,000 of its convertible debt which was converted into 333,333 shares of common stock at \$0.75 per share. In March 2006, the Company entered into a total of three debt conversion agreements with two of the March 2005 accredited investors for an aggregate of \$500,000 of convertible debt which was converted into 666,667 shares of common stock at \$0.75 per share. In May 2006, the Company entered into a debt conversion agreement with one of the March 2005 accredited investors

for \$25,000 of its convertible debt which was converted into 33,333 shares of common stock at \$0.75 per share. In September 2006, the Company entered into a debt conversion agreement with one of the March 2005 accredited investors for \$112,500 of its convertible debt which was converted into 150,000 shares of common stock at \$0.75 per share. In November 2006, the Company entered into a debt conversion agreement with one of the March 2005 accredited investors for \$200,000 of its convertible debt which was converted into 266,666 shares of common stock at \$0.75 per share. In December 2006, the Company entered into a debt conversion agreement with one of the March 2005 accredited investors for \$20,000 of its convertible debt which was converted into 26,667 shares of common stock at \$0.75 per share.

In 2006, \$928,090 of the total debt discount had been amortized which includes \$386,451 of the unamortized portion of the debt discount related to the converted debt at the time of the debt conversions. In 2006, \$287,493 of the deferred loan costs have been amortized which includes \$112,256 of the unamortized portion of the deferred loan costs related to the converted debt at the time of the debt conversions.

The Company chose to pay the quarterly interest due at March 31, 2006, June 30, 2006, September 30, 2006 and December 31, 2006 in common stock instead of cash. As a result, accrued interest due March 31, 2006 of \$33,274 was converted into 35,939 shares of common stock resulting in additional interest expense of \$4,975. 7,656 of these shares were issued March 20, 2006 and the remaining shares of 28,283 were issued March 31, 2006. The accrued interest due June 30, 2006 of \$21,305 was converted into 24,674 shares of common stock resulting in additional interest expense of \$3,650. These shares were issued June 30, 2006. The accrued interest due September 30, 2006 of \$21,010 was converted into 18,888 shares of common stock resulting in additional interest expense of \$2,167. These shares were issued September 29, 2006. The accrued interest due December 31, 2006 of \$15,086 was converted into 14,760 shares of common stock resulting in additional interest expense of \$1,843. These shares were issued December 29, 2006.

In January 2007, the Company entered into a separate debt conversion agreement with two of its March 2005 accredited investors for \$245,833 of convertible debt which was converted into 327,777 shares of common stock at \$0.75 per share. In February 2007, the Company entered into a separate debt conversion agreement with two of its March 2005 accredited investors for \$121,667 of convertible debt which was converted into 162,223 shares of common stock at \$0.75 per share.

In February 2007, the remaining total debt discount has been amortized, which is \$2,797. In February 2007, the remaining deferred loan costs have been amortized, which is \$3,713.

At December 31, 2007 the Company had no remaining principal or accrued interest owed to holders of the March 2005 convertible debentures due on March 31, 2007.

The Company chose to pay a portion of the quarterly interest due at February 28, 2007 in common stock instead of cash. The accrued interest not paid in cash that was due February 28, 2007 of \$1,109 was converted into 1,141 shares of common stock resulting in additional interest expense of \$149. 358 of these shares were issued on January 25, 2007 and the remaining shares of 783 were issued on February 28, 2007.

7. Related Party Transactions

During 2002, a shareholder who is also an employee and member of the Company's board of directors loaned the Company \$109,000. During 2003, the same shareholder loaned the Company an additional \$40,000. During 2005, the same shareholder loaned the Company an additional \$25,000. In December 2005, the Company approved a request from the shareholder to exchange the total loan amount of \$174,000 plus accrued interest of \$24,529 for 264,705 shares of common stock at \$0.75 per share which were committed to be issued at December 31, 2005. These shares were issued on January 3, 2006. In connection with this transaction which was based on the same terms as the private placement conducted at the same time, the Company also issued warrants to the shareholder to purchase up to 330,881 shares of common stock at an exercise price of \$0.935 per share. In December 2007, the employee exercised all of these warrants.

The Company paid one non-employee member of the Board \$105,000 for consulting services performed in 2011 as of July 12, 2011, the day of his resignation from the Board. The Company paid two other non-employee members of the Board \$129,000 for consulting services performed as of December 31, 2011.

The Company paid one non-employee member of the board \$54,000 for consulting services performed as of December 31, 2012. The Company paid another non-employee member of the board \$75,000 for consulting services performed as of December 31, 2012 and issued 100,000 fully vested warrants in exchange for services. Consulting costs charged to operations were \$47,520 for the services for which these warrants were issued. As the fair market value of these services was not readily determinable, these services were valued based on the fair market value, determined using the Black-Scholes option-pricing model. The Company paid a third non-employee member of the board \$75,000 for consulting services performed as of December 31, 2012.

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The Company paid one non-employee member of the board \$54,000 for consulting services performed as of December 31, 2013. The Company paid another non-employee member of the board \$75,000 for consulting services performed as of December 31, 2013. The Company paid a third non-employee member of the board \$75,000 for consulting services performed as of December 31, 2013.

8. Income Taxes

Reconciliations between the statutory federal income tax rate and the Company's effective tax rate follow:

Years Ended December 31,	2013		2012		2011	
	Amount	%	Amount	%	Amount	%
Federal statutory rate	\$ (9,417,000)	(34.0)	\$ (4,273,000)	(34.0)	\$ (6,608,000)	(34.0)
State taxes	(1,246,000)	(4.5)	(566,000)	(4.5)	(874,000)	(4.5)
Adjustment to valuation allowance	5,015,000	18.1	4,596,000	36.5	6,406,000	33.0
Non-deductible compensation	—	—	924,000	7.0	1,848,000	9.5
Loss (gain) on warrant liability	5,648,000	20.4	(681,000)	(5.0)	(772,000)	(4.0)
Actual tax benefit	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>	<u>—</u>

The components of the Company's deferred income taxes are summarized below:

December 31,	2013	2012
Deferred tax assets		
Net operating loss carry-forwards	\$ 30,995,000	\$ 26,980,000
Stock-based compensation	6,299,000	6,245,000
Warrants for services	4,527,000	3,839,000
Deferred tax asset	<u>41,821,000</u>	<u>37,064,000</u>
Deferred tax liabilities		
Patent amortization	(1,638,000)	(1,896,000)
Valuation allowance	<u>(40,183,000)</u>	<u>(35,168,000)</u>
Net deferred taxes	<u>\$ —</u>	<u>\$ —</u>

A valuation allowance against deferred tax assets is required if, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets may not be realized. The Company is in the development stage and realization of the deferred tax assets is not considered more likely than not. As a result, the Company has recorded a valuation allowance for the net deferred tax asset.

Since inception of the Company on January 17, 2002, the Company has generated tax net operating losses of approximately \$81 million, expiring in 2022 through 2033. The tax loss carry-forwards of the Company may be subject to limitation by Section 382 of the Internal Revenue Code with respect to the amount utilizable each year. This limitation reduces the Company's ability to utilize net operating loss carry-forwards. The amount of the limitation has not been quantified by the Company. In addition, the Company acquired certain net operating losses in its acquisition of Valley Pharmaceuticals, Inc. (Note 2). However, the amount of these net operating losses has not been determined and even if recorded, the amount would be fully reserved.

The Company has determined that there are no uncertain tax positions as of December 31, 2013 or 2012 and does not expect any significant change within the next year.

9. 401(K) Profit Sharing Plan

In January 2007, the Company established the Provectus Pharmaceuticals, Inc. Cash Balance Defined Benefit Plan and Trust (the "Plan"), effective January 1, 2007, for the exclusive benefit of its four employees and their beneficiaries. In September 2010, the Company terminated the Cash Balance Defined Benefit Plan and Trust (the "Plan") for its employees. There was an immaterial settlement charge that was not recorded after the termination of the Plan. The Company transferred approximately

\$1,353,000 in assets from the Plan to the 401(K) Profit Sharing Plan of the Company which was formed in the three months ended September 30, 2010. Company contributions to the 401(K) Profit Sharing Plan are discretionary. Contributions made by the Company in 2010 totaled approximately \$497,000 and include the amounts originally contributed to the Plan in 2010. Contributions made by the Company in 2011 totaled approximately \$130,000. Contributions made by the Company in 2012 totaled approximately \$132,000 and were included in other accrued expenses. Contributions made by the Company in 2013 totaled approximately \$226,000.

10. Fair Value of Financial Instruments

The FASB's authoritative guidance on fair value measurements establishes a framework for measuring fair value, and expands disclosure about fair value measurements. This guidance enables the reader of the financial statements to assess the inputs used to develop those measurements by establishing a hierarchy for ranking the quality and reliability of the information used to determine fair values. Under this guidance, assets and liabilities carried at fair value must be classified and disclosed in one of the following three categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

In determining the appropriate levels, the Company performs a detailed analysis of the assets and liabilities that are measured and reported on a fair value basis. At each reporting period, all assets and liabilities for which the fair value measurement is based on significant unobservable inputs are classified as Level 3. The fair value of derivative instruments is determined by management with the assistance of an independent third party valuation specialist. The warrant liability is a derivative instrument and is classified as Level 3. The Company used the Monte-Carlo Simulation model to estimate the fair value of the warrants except for the Series B Warrants. Significant assumptions used at December 31, 2013 for the 2010 warrants include a weighted average term of 1.2 years, a 5% probability that the warrant exercise price would be reset, a volatility range between 66.5% and 69.5% and a risk free interest rate range between 0.13% and 0.38%. Significant assumptions used at December 31, 2012 for the 2010 warrants include a weighted average term of 2.2 years, a 5% probability that the warrant exercise price would be reset, a volatility range between 58.9% and 63.4% and a risk free interest rate range between 0.25% and 0.36%. Significant assumptions used at December 31, 2013 for the 2011 Series A and C Warrants include a weighted average term of 2.0 years, a 5% probability that the warrant exercise price would be further reset, volatility of 64.7% and a risk free interest rate range between 0.38% and 0.78%. Significant assumptions used at December 31, 2012 for the 2011 Series A and C Warrants include a weighted average term of 3.0 years, a 5% probability that the warrant exercise price would be reset, a volatility range between 58.9% and 63.4% and a risk free interest rate range between 0.25% and 0.36%. As of December 31, 2011, there was no warrant liability for the Series B Warrants because they had all been exercised. Significant assumptions used at December 31, 2013 for the 2013 warrants include a weighted average term of 4.1 years, a 5% probability that the warrant exercise price would be reset, volatility of 67.2% and a risk free interest rate range between 0.78% and 1.78%.

The warrant liability measured at fair value on a recurring basis is as follows:

	Total	Level 1	Level 2	Level 3
Derivative instruments:				
Warrant liability at December 31, 2013	\$12,866,572	\$ —	\$ —	\$12,866,572
Warrant liability at December 31, 2012	\$ 1,299,570	\$ —	\$ —	\$ 1,299,570

A reconciliation of the warranty liability measured at fair value on a recurring basis with the use of significant unobservable inputs (Level 3) from January 1, 2012 to December 31, 2013 follows:

Balance at January 1, 2012	\$ 3,067,488
Issuance of warrants	—
Net gain included in earnings	(1,767,918)
Exercise of warrants	—
Balance at December 31, 2012	\$ 1,299,570
Balance at January 1, 2013	\$ 1,299,570
Issuance of warrants	1,297,950
Net loss included in earnings	14,671,130
Exercise of warrants	(4,402,078)
Balance at December 31, 2013	\$12,866,572

11. Litigation

Except as described below, we are not involved in any legal proceedings nor are we party to any pending claims that we believe could reasonably be expected to have a material adverse effect on our business, financial condition, or results of operations.

On January 2, 2013, Glenn Kleba (the "Plaintiff") derivatively on behalf of the Company, filed a shareholder derivative complaint in the Circuit Court for the State of Tennessee, Knox County (the "Court"), against H. Craig Dees, Timothy C. Scott, Eric A. Wachter, and Peter R. Culpepper (collectively, the "Executives"), Stuart Fuchs, Kelly M. McMasters, and Alfred E. Smith, IV (collectively, together with the Executives, the "Individual Defendants"), and against the Company as a nominal defendant (the "Shareholder Derivative Lawsuit"). The Shareholder Derivative Lawsuit alleges (i) breach of fiduciary duties, (ii) waste of corporate assets, and (iii) unjust enrichment, all three claims based on the Plaintiff's allegations that the defendants authorized and/or accepted stock option awards in violation of the terms of the Company's 2002 Stock Plan (the "Plan") by issuing stock options in excess of the amounts authorized under the Plan and delegated to defendant H. Craig Dees the sole authority to grant himself and the other Executives cash bonuses that the Plaintiff alleges to be excessive.

In April 2013, the Company's Board of Directors established a special litigation committee to investigate the allegations of the Shareholder Derivative Complaint and make a determination as to how the matter should be resolved. The special litigation committee conducted its investigation, and proceedings in the case were stayed pending the conclusion of the committee's investigation. The Company has established a reserve of \$100,000 for potential liabilities because such is the amount of the self-insured retention of its insurance policy.

On March 6, 2014, the Company filed a Joint Notice of Settlement (the "Settlement") in the Shareholder Derivative Lawsuit. In addition to the Company, the parties to the Settlement are the Plaintiff and the Individual Defendants. By entering into the Settlement, the settling parties have resolved the derivative claims to their mutual satisfaction. The Individual Defendants have not admitted the validity of any claims or allegations and the Plaintiff has not admitted that any claims or allegations lack merit or foundation. By the terms of the Settlement, (i) the Executives each agreed (A) to re-pay to the Company \$2.24 Million of the cash bonuses they received in 2010 and 2011, which amount equals 70% of such bonuses or an estimate of the after-tax net proceeds to each Executive; provided, however, that subject to certain terms and conditions set forth in the term sheet, which sets forth the terms and conditions of the Settlement (the "Term Sheet"), the Executives are entitled to a 2:1 credit such that total actual repayment may be \$1.12 Million each; (B) to reimburse the Company for 25% of the actual costs incurred by the Company as a result of the Shareholder Derivative Lawsuit; and (C) to grant to the Company a first priority security interest in 1,000,000 shares of the Company's common stock owned by each such Executive to serve as collateral for the amounts due to the Company under the Term Sheet; (ii) Drs. Dees and Scott and Mr. Culpepper agreed to retain incentive stock options for 100,000 shares but shall forfeit 50% of the nonqualified stock options granted to each such Executive in both 2010 and 2011. The Term Sheet also requires that each of the Executives enter into new employment agreements with the Company and that the Company adhere to certain corporate governance principles and processes in the future. Under the Settlement, Messrs. Fuchs and Smith and Dr. McMasters have the option to either (A) pay the Company \$25,000 cash or (B) forfeit options to purchase 50,000 shares of the Company's common stock. The Company, the Plaintiff and the Individual Defendants will release each other from any and all claims related to the Shareholder Derivative Lawsuit, as well as dismiss the Shareholder Derivative Lawsuit with prejudice upon the Company and the Individual Defendants entering into a formal settlement agreement.

The Settlement remains subject to approval by the Court after notice to the Company's shareholders and a settlement hearing. The hearing on the terms of the proposed settlement will be held to determine whether: (1) the terms and conditions of the settlement provided for in the Settlement are fair, reasonable and adequate and in the best interest of the Company and its shareholders, (2) the judgment, as provided for in the Settlement, should be entered, and (3) the request of Plaintiff's counsel for an award of attorneys' fees and reimbursement of expenses should be granted.

12. Subsequent Events

The Company has evaluated subsequent events through the date of the filing of these financial statements. As discussed in Note 11, on March 6, 2014 the Company filed a Joint Notice of Settlement in the Shareholder Derivative Lawsuit. The Company has received \$2,672,363 thus far in 2014 due to warrant exercises and \$538,586 was received thus far in 2014 due to stock option exercises.

13. Selected Quarterly Financial Data (Unaudited)

The following tables present a summary of quarterly results of operations for 2013 and 2012:

Three Months Ended			
March 31, 2013	June 30, 2013	September 30, 2013	December 31, 2013
(in thousands, except per share data)			

Consolidated Statement of Operations Data:

Total revenues	\$ —	\$ —	\$ —	\$ —
Total operating loss	(3,247)	(3,287)	(3,650)	(2,844)
Other income (expense), net	(923)	909	(903)	(13,754)
Net loss	(4,170)	(2,378)	(4,553)	(16,598)
Dividends on preferred stock	(1,077)	(72)	(38)	—
Net loss applicable to common stockholders	\$ (5,247)	\$ (2,450)	\$ (4,591)	\$ (16,598)
Basic and diluted loss per common share	\$ (0.04)	\$ (0.02)	\$ (0.03)	\$ (0.11)
Weighted average number of common shares outstanding – basic and diluted	120,702	127,115	131,574	148,314

Three Months Ended

March 31, 2012	June 30, 2012	September 30, 2012	December 31, 2012
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(in thousands, except per share data)

Consolidated Statement of Operations Data:

Total revenues	\$ —	\$ —	\$ —	\$ —
Total operating loss	(4,205)	(4,285)	(3,594)	(2,253)
Other income (expense), net	(263)	453	1,247	332
Net loss	(4,468)	(3,833)	(2,347)	(1,921)
Dividends on preferred stock	(50)	(51)	(44)	(38)
Net loss applicable to common stockholders	\$ (4,518)	\$ (3,884)	\$ (2,391)	\$ (1,959)
Basic and diluted loss per common share	\$ (0.04)	\$ (0.03)	\$ (0.02)	\$ (0.02)
Weighted average number of common shares outstanding – basic and diluted	110,775	112,267	113,167	115,948

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
3.1†	Certificate of Incorporation of Provectus Biopharmaceuticals, Inc. (the “Company”)
3.2†	Certificate of Designation for the Company’s 8% Convertible Preferred Stock
3.3†	Certificate of Designation for the Company’s Series A 8% Convertible Preferred Stock
3.4†	Bylaws of the Company
4.1	Specimen certificate for the Company’s common shares, \$.001 par value per share (incorporated by reference to Exhibit 4.1 of the Company’s annual report on Form 10-KSB filed with the SEC on April 15, 2003).
4.2	Form of Series A Warrant issued to each of the purchasers identified on the signature pages of the Securities Purchase Agreement dated as of January 13, 2011 (incorporated by reference to Exhibit 4.1 of the Company’s current report on Form 8-K filed with the SEC on January 13, 2011).
4.3	Form of Series B Warrant issued to each of the purchasers identified on the signature pages of the Securities Purchase Agreement dated as of January 13, 2011 (incorporated by reference to Exhibit 4.2 of the Company’s current report on Form 8-K filed with the SEC on January 13, 2011).
4.4	Form of Series C Warrant issued to each of the purchasers identified on the signature pages of the Securities Purchase Agreement dated as of January 13, 2011 (incorporated by reference to Exhibit 4.3 of the Company’s current report on Form 8-K filed with the SEC on January 13, 2011).
4.5	Form of Warrant issued to Lincoln Park Capital, LLC (incorporated by reference to Exhibit 4.1 of the Company’s current report on Form 8-K filed with the SEC on December 23, 2010).
4.6	Form of Warrant issued to investors in connection with the offering of the Company’s 8% Convertible Preferred Stock (incorporated by reference to Exhibit 10.2 of the Company’s current report on Form 8-K filed on March 12, 2010).
4.7	Form of Warrant issued to investors in connection with the offering of the Company’s Series A 8% Convertible Preferred Stock (incorporated by reference to Exhibit 10.2 of the Company’s current report on Form 8-K filed on February 28, 2013).
10.1*	Amended and Restated 2012 Stock Plan (incorporated herein by reference to Appendix A of the Company’s definitive proxy statement filed on April 30, 2012).
10.2*	Confidentiality, Inventions and Non-competition Agreement dated as of November 26, 2002 between the Company and H. Craig Dees (incorporated by reference to Exhibit 10.8 of the Company’s annual report on Form 10-KSB filed on April 15, 2003).
10.3*	Confidentiality, Inventions and Non-competition Agreement dated as of November 26, 2002 between the Company and Timothy C. Scott (incorporated by reference to Exhibit 10.9 of the Company’s annual report on Form 10-KSB filed on April 15, 2003).
10.4*	Confidentiality, Inventions and Non-competition Agreement dated as of November 26, 2002, between the Company and Eric A. Wachter (incorporated by reference to Exhibit 10.10 of the Company’s annual report on Form 10-KSB filed on April 15, 2003).
10.5	Material Transfer Agreement dated as of July 31, 2003 between Schering-Plough Animal Health Corporation and the Company (incorporated by reference to Exhibit 10.15 of the Company’s quarterly report on Form 10-QSB filed on August 14, 2003).
10.6	Securities Purchase Agreement dated as of January 13, 2011, by and between the Company and the purchasers identified on the signature pages thereto (incorporated by reference to Exhibit 10.1 of the Company’s current report on Form 8-K filed on January 13, 2011).
10.7	Purchase Agreement dated as of July 22, 2013, by and between the Company and Alpha Capital Anstalt (incorporated by reference to Exhibit 10.1 of the Company’s current report on Form 8-K filed on July 26, 2013).

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10.8	Registration Rights Agreement dated as of December 22, 2010, by and between the Company and Lincoln Park Capital Fund, LLC (incorporated by reference to Exhibit 10.2 of the Company's current report on Form 8-K filed on December 23, 2010).
10.9	Form of Securities Purchase Agreement by and among the Company and the investors set forth on the signature pages affixed thereto used in connection with the offering of the 8% Convertible Preferred Stock and related warrants (incorporated by reference to Exhibit 10.1 of the Company's current report on Form 8-K filed on March 12, 2010).
10.10	Form of Registration Rights Agreement by and among the Company and the stockholders set forth on the signature pages affixed thereto used in connection with the offering of the 8% Convertible Preferred Stock and related warrants (incorporated by reference to Exhibit 10.3 of the Company's current report on Form 8-K filed on March 12, 2010).
10.11	Form of Securities Purchase Agreement by and among the Company and the investors set forth on the signature pages affixed thereto used in connection with the offering of the Series A 8% Convertible Preferred Stock and related warrants (incorporated by reference to Exhibit 10.1 of the Company's current report on Form 8-K filed on February 28, 2013).
10.12	Form of Registration Rights Agreement by and among the Company and the stockholders set forth on the signature pages affixed thereto used in connection with the offering of the Series A 8% Convertible Preferred Stock and related warrants (incorporated by reference to Exhibit 10.3 of the Company's current report on Form 8-K filed on February 28, 2013).
10.13*†	Executive Employment Agreement by and between the Company and H. Craig Dees, Ph.D., dated July 1, 2013.
10.14*†	Executive Employment Agreement by and between the Company and Eric Wachter, Ph.D., dated July 1, 2013.
10.15*†	Executive Employment Agreement by and between the Company and Timothy C. Scott, Ph.D., dated July 1, 2013.
10.16*†	Executive Employment Agreement by and between the Company and Peter Culpepper, dated July 1, 2013.
14	Code of Ethics (incorporated by reference to Exhibit 14 of the Company's annual report on Form 10-K filed on March 16, 2011).
21	Subsidiaries of the Company (incorporated by reference to Exhibit 21 of the Company's annual report on Form 10-K filed on March 16, 2011).
23†	Consent of Independent Registered Public Accounting Firm
31.1†	Certification of CEO pursuant to Rules 13a-14(a) of the Securities Exchange Act of 1934.
31.2†	Certification of CFO pursuant to Rules 13a-14(a) of the Securities Exchange Act of 1934.
32†	Certification Pursuant to 18 U.S.C. Section 1350.
101	The following financial information from Provectus Biopharmaceuticals, Inc.'s Annual Report on Form 10-K for the period ended December 31, 2013, filed with the SEC on March 13, 2014, formatted in Extensible Business Reporting Language (XBRL): (i) the Consolidated Balance Sheet as of December 31, 2013 and December 31, 2012; (ii) the Consolidated Statements of Operations for the years ended December 31, 2013, 2012 and 2011, and cumulative amounts from January 17, 2002 (Inception) through December 31, 2013; (iii) the Consolidated Statements of Equity for the years ended December 31, 2013, 2012 and 2011; (iv) the Consolidated Statements of Cash Flows for the years ended December 31, 2013, 2012 and 2011, and cumulative amounts from January 17, 2002 (Inception) through December 31, 2013; and (v) Notes to Consolidated Financial Statements.**

† Filed herewith.

* Indicates a management contract or compensatory plan or arrangement.

** Pursuant to Rule 406T of Regulation S-T, the XBRL related information in Exhibit 101 to this Annual Report on Form 10-K shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be deemed part of a registration statement, prospectus or other document filed under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filings.

Certificate of Incorporation

STATE of DELAWARE
CERTIFICATE of INCORPORATION
A STOCK CORPORATION

ARTICLE I
NAME

The name of the Corporation is Provectus Biopharmaceuticals, Inc.

ARTICLE II
REGISTERED AGENT

Its registered office in the State of Delaware is to be located at 160 Greentree Drive, Suite 101, in the City of Dover, County of Kent, Zip Code 19904.

The registered agent of this Corporation in the State of Delaware at such address is National Registered Agents, Inc.

ARTICLE III
PURPOSE

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("DGCL").

ARTICLE IV
CAPITALIZATION

A. The total number of shares which the Corporation shall have authority to issue is 275,000,000 shares of capital stock, of which 250,000,000 shares shall be designated Common Stock, \$0.001 par value per share ("Common Stock"), and 25,000,000 shall be designated Preferred Stock, \$0.001 par value per share ("Preferred Stock").

1. *Common Stock.* All preferences, voting powers, relative, participating, optional or other special rights and privileges, and qualifications, limitations, or restrictions of the Common Stock are expressly made subject and subordinate to those that may be fixed with respect to any shares of the Preferred Stock. Except as otherwise required by law or this Certificate of Incorporation, each share of Common Stock shall entitle the holder thereof to one (1) vote, in person or by proxy, on each matter submitted to a vote of stockholders of the Corporation. Subject to the preferential rights of the Preferred Stock, the holders of shares of Common Stock shall be entitled to receive, when and if declared by the Board of Directors, out of the assets of the Corporation which are by law available therefor, dividends payable either in cash, in property or in shares of capital stock. In the event of any dissolution, liquidation or winding up of the affairs of the Corporation, after distribution in full of the preferential amounts, if any, to be distributed to the holders of shares of the Preferred Stock, holders of Common Stock shall be entitled, unless otherwise provided by law or this Certificate of Incorporation, to receive all of the remaining assets of the Corporation of whatever kind available for distribution to stockholders ratably in proportion to the number of shares of Common Stock held by them respectively.

2. *Preferred Stock*. The Preferred Stock may be issued from time to time in one or more series, as determined by the Board of Directors of the Corporation (the "Board of Directors"). The Board of Directors is expressly authorized to provide for the issue, in one or more series, of all or any of the remaining shares of Preferred Stock and, in the resolution or resolutions providing for such issue, to establish for each such series the number of its shares, the voting powers, full or limited, of the shares of such series, or that such shares shall have no voting powers, and the designations, preferences and relative, participating, optional or other special rights of the shares of such series, and the qualifications, limitations or restrictions thereof. The Board of Directors is further expressly authorized to increase or decrease (but not below the number of shares of any such series then outstanding) the number of shares of any series, the number of which was fixed by it, subsequent to the issuance of shares of such series then outstanding, subject to the powers, preferences and rights, and the qualifications, limitations and restrictions thereof stated in the Certificate of Incorporation or the resolution of the Board of Directors originally fixing the number of shares of such series. If the number of shares of any series is so decreased, then the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

ARTICLE V

EXCULPATION AND INDEMNIFICATION

A. Limitation of Liability. A director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL as it presently exists or may hereafter be amended. Any amendment, modification or repeal of the foregoing sentence shall not adversely affect any right arising prior to the time of such amendment, modification or repeal.

B. Right of Indemnification. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a "Covered Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding"), by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director, officer, employee or agent of the Corporation or, while a director, officer, employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except as otherwise provided in section D of this Article V, the Corporation shall not be required to indemnify a Covered Person in connection with a Proceeding (or part thereof) commenced by such Covered Person unless the commencement of such Proceeding (or part thereof) by the Covered Person was authorized in the specific case by the Board of Directors.

C. Prepayment of Expenses. The Corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any Proceeding in advance of its final disposition, provided, however, that, to the extent required by law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article V or otherwise.

D. Claims. If a claim for indemnification (following the final disposition of the Proceeding with respect to which indemnification is sought, including any settlement of such Proceeding) or advancement of expenses under this Article V is not paid in full within thirty days after a written claim therefor by the Covered Person has been received by the Corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid

the expense of prosecuting such claim to the fullest extent permitted by applicable law. In any such action the Corporation shall have the burden of proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under this Article V and applicable law.

E. Non-Exclusivity of Rights. The rights conferred on any Covered Person by this Article V shall not be exclusive of any other rights which such Covered Person may have or hereafter acquire under any statute, any other provision of this Certificate of Incorporation, the Bylaws of the Corporation, or any agreement, vote of stockholders or disinterested directors or otherwise.

F. Insurance. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such liability under this Article V, the DGCL or otherwise.

G. Amendment or Repeal. Any right to indemnification or to advancement of expenses of any Covered Person arising hereunder shall not be eliminated or impaired by an amendment to or repeal of this Article V after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought.

H. Other Indemnification and Advancement of Expenses. This Article V shall not limit the right of the Corporation, to the extent and in the manner permitted by law, to indemnify and to advance expenses to persons other than Covered Persons when and as authorized by appropriate corporate action.

ARTICLE VI MANAGEMENT

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. The management of the business and the conduct of the affairs of the Corporation is vested in its Board. The Board shall fix the number of directors that constitute the whole Board in the manner provided in the Bylaws, subject to any restrictions that may be set forth in this Certificate of Incorporation.

B. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the Corporation. Any adoption, amendment or repeal of the Bylaws of the Corporation by the Board of Directors shall require the approval of a majority of the directors then in office. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by the Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of the Bylaws of the Corporation.

ARTICLE VII
STOCKHOLDER MEETINGS

Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide; provided, however, that any action required to be taken at any annual or special meeting of stockholders of the Corporation, or any action which may be taken at any annual or special meeting of such stockholders, may not be taken without a meeting. No action shall be taken by the stockholders by written consent.

ARTICLE VIII
INCORPORATOR

The name and mailing address of the incorporator is as follows:

Lori B. Metrock
Baker, Donelson, Bearman, Caldwell & Berkowitz, PC
Baker Donelson Center, Suite 800
211 Commerce Street
Nashville, TN 37201

I, the Undersigned, for the purpose of forming a corporation under the laws of the State of Delaware, do make, file and record this Certificate, and do certify that the facts herein stated are true, and I have accordingly hereunto set my hand this 17th day of December, A.D. 2013.

INCORPORATOR

/s/ Lori B. Metrock

Lori B. Metrock, Incorporator

PROVECTUS BIOPHARMACEUTICALS, INC.**CERTIFICATE OF DESIGNATION****(Pursuant to Section 151 of the General Corporation Law of the State of Delaware)****8% Convertible Preferred Stock****par value \$.001 per share**

PROVECTUS BIOPHARMACEUTICALS, INC., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "Corporation"), by its Chief Financial Officer and Chief Operating Officer,

DOES HEREBY CERTIFY:

FIRST: That, pursuant to authority expressly vested in the Board of Directors of the Corporation (the "Board of Directors") by the provisions of its certificate of incorporation (the "Certificate of Incorporation"), the Board of Directors duly adopted by unanimous written consent the following resolution providing for the designation of 13,333,333 shares of 8% Convertible Preferred Stock, \$.001 per share:

RESOLVED, that the Board of Directors, pursuant to authority expressly vested in it by the provisions of the Certificate of Incorporation of the Corporation, the Board of Directors hereby authorizes the issuance from time to time of the 8% Convertible Preferred Stock of the Corporation and hereby fixes the powers, designations, preferences, limitations, restrictions and relative rights of the 8% Convertible Preferred Stock of the Corporation, in addition to those set forth in said Certificate of Incorporation, to be in their entirety as follows:

1. Designation and Number of Shares. One series of Preferred Stock is established and designated as 8% Convertible Preferred Stock, par value \$.001 per share (the "8% Convertible Preferred Stock"). The number of shares constituting the 8% Convertible Preferred Stock shall be 13,333,333 shares.

2. Definitions. For the purpose of this Certificate of Designation, the following definitions apply:

(a) "Affiliate" means, with respect to any person: (a) that directly or indirectly, through one or more intermediaries Controls, or is controlled by, or is under common control with, such person.

(b) "Business Day" means each Monday, Tuesday, Wednesday, Thursday or Friday on which banking institutions are not authorized or obligated by law, regulation or executive order to close in New York, New York.

(c) "Common Stock" means the common stock, par value \$.001 per share, authorized for issuance under the Certificate of Incorporation.

(d) "Control" (including the terms "controlling," "controlled by" or "under common control with") means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract or otherwise.

(e) "Conversion Price" means \$0.75 per share of 8% Convertible Preferred Stock, as adjusted from time to time as set forth in this Certificate of Designation.

(f) "Junior Stock" means the Common Stock and each other class or series of the Corporation's capital stock, whether common, preferred or otherwise, the terms of which do not provide that shares of such class or series rank senior to or on par with the 8% Convertible Preferred Stock as to distributions of dividends and distributions upon the liquidation, winding-up and dissolution of the Corporation

(g) "Market Price" means, as of a determination date, (i) the volume-weighted average price of Common Stock on the OTCBB for the 15 Trading Days immediately preceding such date calculated by adding up the dollars traded for every transaction on each Trading Day (price multiplied by the number of shares traded) and then dividing by the total shares traded for the Trading Day, or (ii) if the OTCBB is not the principal trading market for the shares of Common Stock, the volume-weighted average price of Common Stock on the principal trading market for the Common Stock during the same period and calculated in the same manner set forth above, or (iii) if market value cannot be calculated as of such date on any of the foregoing bases, the Market Price shall be the fair market value as reasonably determined in good faith by the Board of Directors of the Corporation. The manner of determining the Market Price of the Common Stock set forth in the foregoing definition shall apply with respect to any other security in respect of which a determination as to market value must be made under this Certificate of Designation.

(h) "Original Issue Price" means the original issue price of \$0.75 per share of 8% Convertible Preferred Stock, as adjusted for any combinations, consolidations, recapitalizations, reorganizations, reclassifications, stock distributions, stock dividends (other than any dividend paid on the 8% Convertible Preferred Stock) or splits with respect to such shares.

(i) "Trading Day" means any day on which the Common Stock is traded for any period of the OTCBB or on the principal securities exchange or other securities market on which the Common Stock is then being traded.

3. Dividends.

(a) The holders of 8% Convertible Preferred Stock shall be entitled to receive, only out of assets legally available for payment of dividends, cumulative cash dividends on the Original Issue Price, and no more, payable quarterly in arrears on each January 15, April 15, July 15 and October 15; provided, however, if any such day is not a Business Day, then payment of any dividend otherwise payable on that date will be made on the next succeeding day that is a Business Day (without any interest or other payment in

respect of such delay) (each such day on which dividends are payable a "Dividend Payment Date"). The period from and including the date of issuance of the 8% Convertible Preferred Stock or any Dividend Payment Date to but excluding the next Dividend Payment Date is a "Dividend Period." Dividends on each share of 8% Convertible Preferred Stock will accrue on the Original Issue Price for each related Dividend Period at a rate equal to 8% per annum.

(b) The Corporation may determine to distribute duly authorized, fully paid and non-assessable shares of Common Stock in lieu of the cash dividend set forth in Section 3(a). The number of shares of Common Stock payable under this Section shall be the quotient of amount of the cash dividend per share of 8% Convertible Preferred Stock calculated under Section 3(a) divided by the Market Price determined as of the Dividend Payment Date.

(c) Any accrued and unpaid dividends payable under Section 3(a) which are not paid within five Business Days of such accrued and unpaid dividends' Dividend Payment Date shall bear interest at the rate of 13% per annum from such Dividend Payment Date until the dividend is paid in full. Such additional interest shall be paid in cash or Common Stock in the manner set forth in Section 3(a) or Section 3(b).

(d) No distribution shall be made with respect to the Common Stock or the 8% Convertible Preferred Stock (except for the dividend permitted this Section 3) until all accumulated dividends have been declared and paid on the 8% Convertible Preferred Stock. After the payment of the dividends described in this Section 3, the Board of Directors may declare and pay dividends on Common Stock; provided, however, that any dividend declared on the Common Stock shall be paid on a pro rata basis to holders of Common Stock and 8% Convertible Preferred Stock on an as-converted basis.

4. Liquidation Rights. Upon the voluntary or involuntary liquidation, winding-up or dissolution of the Corporation, the Corporation shall designate a time period (which shall not be less than ten business days) during which the holders of 8% Convertible Preferred Stock may exercise their rights to convert all or a portion of their 8% Convertible Preferred Stock into Common Stock as set forth in Section 6. Each holder of 8% Convertible Preferred Stock that does not exercise its rights to convert shall be entitled to receive out of the assets of the Corporation, for each share of 8% Convertible Preferred Stock, cash in an amount equal to (i) the Original Issue Price plus (ii) all accrued but unpaid dividends on the share, before any payment or distribution shall be made on the Junior Stock, but after payment of all outstanding indebtedness and all amounts due on liquidation, dissolution or winding-up in respect of all preferred stock of the Corporation which by its terms is senior to the 8% Convertible Preferred Stock, if any. After the payment to the holders of 8% Convertible Preferred Stock of the full preferential amounts set forth above, the holders of 8% Convertible Preferred Stock shall have no right or claim to any of the remaining assets of the Corporation. Shares of 8% Convertible Preferred Stock shall not be entitled to participate in the liquidation as shares of Common Stock without first foregoing

the 8% Convertible Preferred Stock liquidation preference. If the assets of the Corporation available for distribution to the holders of 8% Convertible Preferred Stock upon any liquidation, dissolution or winding-up of the Corporation are insufficient to pay the full preferential amount to which the holders of 8% Convertible Preferred Stock are entitled, then the holders of 8% Convertible Preferred Stock shall share in such distribution of assets pro rata in accordance with the amount that would be payable on such distribution if the amounts to which the holders of 8% Convertible Preferred Stock were entitled were paid in full.

For purposes of this Section 4, a merger or other corporate reorganization in which the Corporation's stockholders shall receive cash or securities of another corporation or entity (except in connection with a consolidation or merger in which the holders of voting stock of the Corporation immediately before the consolidation or merger will in the aggregate own more than 50% of the voting shares of the continuing or surviving corporation after the consolidation or merger) or any transaction in which all or substantially all of the assets of the Corporation are sold shall be treated as a liquidation for purposes of the liquidation preference contained in this Section 4. Prior to the consummation of such transaction, the Corporation shall designate a time period (which shall not be less than ten business days) during which the holders of 8% Convertible Preferred Stock may exercise their rights to convert all or a portion of their 8% Convertible Preferred Stock into Common Stock as set forth in Section 6.

5. Voting Rights.

(a) *Generally.* Except as otherwise required by Delaware law or as expressly provided in this Certificate of Designation or the Certificate of Incorporation, the holders of 8% Convertible Preferred Stock shall not have any voting rights. With respect to any matter on which the holders of Common Stock shall be entitled to vote, the holders of shares of 8% Convertible Preferred Stock shall vote together with the holders of Common Stock, and not as a separate class, and each share of 8% Convertible Preferred Stock shall have a number of votes equal to the number of shares of Common Stock then issuable upon conversion.

(b) *Certain Actions.* In addition to the voting rights described in Section 5(a) above, so long as at least 25% of the aggregate number of originally-issued shares of 8% Convertible Preferred Stock are outstanding, the Corporation will not, without the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of 8% Convertible Preferred Stock, voting as a separate class, (i) take any action that creates any new class or series of equity securities or any other security convertible into equity securities ranking senior to the 8% Convertible Preferred Stock with respect to redemption, voting, dividends, or liquidation rights; (ii) amend, alter, or repeal any provision of the Certificate of Incorporation or Bylaws in a manner that is adverse to the relative rights, preferences, qualifications, limitation or restrictions of the 8% Convertible Preferred Stock; (iii) declare or pay a dividend or distribution on any securities of the Corporation prior to the payment of the dividends required by this Certificate of Designation to the holders of 8% Convertible Preferred Stock; or (iv) approve any of the actions set forth in the second paragraph of Section 4.

6. Optional Conversion by Holder. The 8% Convertible Preferred Stock shall be convertible into Common Stock of the Corporation as follows:

(a) *Optional Conversion*. Subject to and upon compliance with the provisions of this Section 6, the holder of any shares of 8% Convertible Preferred Stock shall have the right at such holder's option, at any time or from time to time, to convert shares of 8% Convertible Preferred Stock into such number of shares of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price by the Conversion Price, multiplied by the number of shares of 8% Convertible Preferred Stock being converted.

(b) *Mechanics of Conversion*. The holder of any shares of 8% Convertible Preferred Stock may exercise the conversion right specified in Section 6(a) by surrendering to the Corporation or any transfer agent of the Corporation the certificate or certificates for the shares to be converted, accompanied by written notice specifying the number of shares to be converted. Conversion shall be deemed to have been effected on the date when delivery of notice of an election to convert and certificates for shares is made and such date is referred to herein as the "Conversion Date." Subject to the provisions of this Section 6, as promptly as practicable thereafter (and after surrender of the certificate or certificates representing shares of 8% Convertible Preferred Stock to the Corporation or any transfer agent of the Corporation), the Corporation shall issue and deliver to or upon the written order of such holder a certificate or certificates for the number of full shares of Common Stock to which such holder is entitled. Subject to the provisions of this Section 6, the person in whose name the certificate or certificates for Common Stock are to be issued shall be deemed to have become a holder of record of such Common Stock on the applicable Conversion Date. Upon conversion of only a portion of the number of shares covered by a certificate representing shares of 8% Convertible Preferred Stock surrendered for conversion, the Corporation shall issue and deliver to or upon the written order of the holder of the certificate so surrendered for conversion, at the expense of the Corporation, a new certificate covering the number of shares of 8% Convertible Preferred Stock representing the unconverted portion of the certificate so surrendered. All rights with respect to the 8% Convertible Preferred Stock that are converted pursuant to Section 6(a), including the rights, if any, to receive dividends, receive notices and vote (other than as a holder of Common Stock), will terminate upon the Corporation's conversion pursuant to Section 6(a).

(c) *Fractional Shares*. No fractional shares of Common Stock shall be issued upon conversion of shares of 8% Convertible Preferred Stock. If more than one share of 8% Convertible Preferred Stock shall be surrendered for conversion at any one time by the same holder, the number of full shares of Common Stock issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of 8% Convertible Preferred Stock so surrendered. Instead of any fractional shares of Common Stock which would otherwise be issuable upon conversion of any shares of 8% Convertible Preferred Stock, the Corporation shall pay a cash adjustment in respect of such fractional interest in an amount equal to (i) that fractional interest multiplied by (ii) the sum of (A) the Original Issue Price plus (B) any dividends on such share of 8% Convertible Preferred Stock which such holder is entitled to receive, but has not yet received.

7. Optional Conversion by the Corporation.

(a) *Optional Conversion.* Subject to the final sentence of this Section 7(a), if, at any time, the volume-weighted average price of Common Stock on the principal trading market for the Common Stock for the 30 Trading Days immediately preceding such date calculated by adding up the dollars traded for every transaction on each Trading Day (price multiplied by the number of shares traded) and then dividing by the total shares traded for the Trading Day exceeds 300% of the Conversion Price (which is \$2.25 as of the Initial Issue Date) and the average daily trading volume exceeds 150,000 shares for 30 consecutive Trading Days, then the Corporation shall perpetually thereafter have the right, at any time or from time to time, to convert all or a portion of the shares of 8% Convertible Preferred Stock into such number of shares of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price by the Conversion Price, multiplied by the number of shares of 8% Convertible Preferred Stock being converted. If only a portion of 8% Convertible Preferred Stock then outstanding is to be converted, the Corporation shall select the shares to be converted in whatever reasonable manner its Board of Directors determines; provided, however that, subject to the next sentence, such selection shall be pro rata among the holders of the 8% Convertible Preferred Stock. Notwithstanding the foregoing, (i) during the first six months following the original issuance of shares of 8% Convertible Preferred Stock and (ii) during any time in the succeeding six months during which the holder of such 8% Convertible Preferred Stock is ineligible to rely upon Rule 144 promulgated under the Securities Act of 1933, as amended, for the resale of such 8% Convertible Preferred Stock due solely to the Corporation's failure to satisfy Rule 144(c)(1), the Corporation's right to convert such shares of 8% Convertible Preferred Stock held by such holder shall be suspended.

(b) *Procedural Requirements.* The Corporation shall send written notice of the conversion to all holders of record of shares of 8% Convertible Preferred Stock that are converted pursuant to Section 7(a) (such notice need not be sent in advance of the occurrence of the conversion). Upon receipt of such notice, each holder of shares of 8% Convertible Preferred Stock being converted shall surrender his, her or its certificate or certificates for all such shares of 8% Convertible Preferred Stock (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. All rights with respect to the 8% Convertible Preferred Stock that are converted pursuant to Section 7(a), including the rights, if any, to receive dividends, receive notices and vote (other than as a holder of Common Stock), will terminate upon the Corporation's conversion pursuant to Section 7(a). As soon as practicable after the conversion and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for 8% Convertible Preferred Stock, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the

number of full shares of Common Stock issuable on such conversion in accordance with the provisions of Section 7(a), together with cash as provided in Section 6(c) in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the 8% Convertible Preferred Stock. No fractional shares of Common Stock shall be issued upon conversion of shares of 8% Convertible Preferred Stock, and a cash adjustment shall be paid for such fractional shares as set forth in Section 6(c).

8. Adjustments to Conversion Price.

(a) *Adjustment for Stock Splits and Combinations* If at any time or from time to time after the date that the first share of 8% Convertible Preferred Stock is issued (the "Original Issue Date") the Corporation effects a subdivision of the outstanding Common Stock without a corresponding subdivision of the 8% Convertible Preferred Stock, the Conversion Price in effect immediately before that subdivision shall be proportionately decreased. Conversely, if at any time or from time to time after the Original Issue Date the Corporation combines the outstanding shares of Common Stock into a smaller number of shares without a corresponding combination of the 8% Convertible Preferred Stock, the Conversion Price in effect immediately before that subdivision shall be proportionately increased. Any adjustment under this Section 8(a) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) *Adjustment for Common Stock Dividends and Distributions* If at any time from time to time after the Original Issue Date the Corporation pays a dividend or other distribution in additional shares of Common Stock to the holders of Common Stock, the Conversion Price in effect immediately before the dividend or distribution shall be decreased as follows:

(i) The Conversion Price shall be adjusted by multiplying the Conversion Price then in effect by a fraction equal to:

(1) a numerator which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance, and

(2) the denominator which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

(ii) If the Corporation fixes a record date to determine which holders of Common Stock are entitled to receive such dividend or other distribution, the Conversion Price shall be fixed as of the close of business on such record date and the number of shares of Common Stock shall be calculated immediately prior to the close of business on such record date; and

(iii) If such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price shall be adjusted to reflect the actual payment of such dividend or distribution.

(c) *Adjustment for Reclassification, Exchange and Substitution.* If at any time or from time to time after the Original Issue Date, the Common Stock issuable upon the conversion of the 8% Convertible Preferred Stock is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification or otherwise (other than a subdivision or combination of shares or stock dividend or a reorganization, merger, consolidation or sale of assets provided for elsewhere in this Section 8), in any such event each holder of 8% Convertible Preferred Stock shall then have the right to convert such stock into the kind and amount of stock and other securities and property receivable upon such recapitalization, reclassification or other change by holders of the maximum number of shares of Common Stock into which such shares of 8% Convertible Preferred Stock could have been converted immediately prior to such recapitalization, reclassification or change, all subject to further adjustment as provided herein or with respect to such other securities or property by the terms thereof.

(d) *Reorganizations, Mergers or Consolidations.* If at any time or from time to time after the Original Issue Date, there is a capital reorganization of the Common Stock or the merger or consolidation of the Corporation with or into another corporation or another entity or person, as a part of such capital reorganization, provision shall be made so that the holders of the 8% Convertible Preferred Stock shall thereafter be entitled to receive upon conversion of the 8% Convertible Preferred Stock the number of shares of stock or other securities or property of the Corporation to which a holder of the number of shares of Common Stock deliverable upon conversion would have been entitled on such capital reorganization, subject to adjustment in respect of such stock or securities by the terms thereof. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 8 with respect to the rights of the holders of 8% Convertible Preferred Stock after the capital reorganization to the end that the provisions of this Section 8 (including adjustment of the number of shares of Common Stock that may be issued upon conversion of the 8% Convertible Preferred Stock) shall be applicable after that event and be as nearly equivalent as practicable. As a condition to the consummation of any such transaction, the Corporation shall arrange for the person or entity obligated to issue securities or deliver cash or other assets upon conversion of the 8% Convertible Preferred Stock to, concurrently with the consummation of such transaction, assume the Corporation's obligations hereunder by executing an instrument so providing and further providing for adjustments which shall be as nearly equivalent as may be practical to the adjustments provided for in this Section 8. The provisions of this paragraph (d) shall apply to successive consolidations, mergers, sales and transfers.

(e) *Adjustments for Dilutive Issues.*

(i) Special Definitions. For purposes of Section 8(e), the following definitions shall apply:

(1) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(2) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(3) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Section 8(e)(ii), deemed to be issued) by the Corporation after the Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "Exempted Securities"):

(A) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on the 8% Convertible Preferred Stock;

(B) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Section 8(a) through Section 8(d);

(C) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation;

(D) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(E) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Corporation;

(F) shares of Common Stock, Options or Convertible Securities issued to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board of Directors of the Corporation;

(G) shares of Common Stock, Options or Convertible Securities issued pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided, that such issuances are approved by the Board of Directors of the Corporation; or

(H) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the Board of Directors of the Corporation.

(ii) Deemed Issue of Additional Shares of Common Stock

(1) If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(2) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price pursuant to the terms of Section 8(e)(iii), are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the

original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this Section 8(e)(ii)(2) shall have the effect of increasing the Conversion Price to an amount which exceeds the lower of (i) the Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(3) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price pursuant to the terms of Section 8(e)(iii) (either because the consideration per share (determined pursuant to Section 8(e)(iv)) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Conversion Price then in effect, or because such Option or Convertible Security was issued before the Original Issue Date), are revised after the Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 8(e)(ii)(1)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(4) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Conversion Price pursuant to the terms of Section 8(e)(iii), the Conversion Price shall be readjusted to such Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(5) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the

Conversion Price provided for in this Section 8(e)(ii) shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (2) and (3) of this Section 8(e)(ii)). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price that would result under the terms of this Section 8(e)(ii) at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

(iii) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock In the event the Corporation shall at any time after the Original Issue Date and prior to the date that is five years after the Original Issue Date, issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 8(e)(ii)), without consideration or for a consideration per share less than the applicable Conversion Price in effect immediately prior to such issue, then the Conversion Price shall be reduced, concurrently with such issue, to the consideration per share received by the Corporation for such issue or deemed issue of the Additional Shares of Common Stock; provided that if such issuance or deemed issuance was without consideration, then the Corporation shall be deemed to have received an aggregate of \$.001 of consideration for all such Additional Shares of Common Stock issued or deemed to be issued.

(iv) Determination of Consideration. For purposes of this Section 8(e)(iv), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(1) Cash and Property. Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(B) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

(C) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as determined in good faith by the Board of Directors of the Corporation.

(2) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 8(e)(ii), relating to Options and Convertible Securities, shall be determined by dividing

(A) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(B) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

(v) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price pursuant to the terms of Section 8(e)(iii), then, upon the final such issuance, the Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

9. Beneficial Ownership Limitation. Notwithstanding anything in this Certificate of Designation to the contrary, the right of the holder to convert the 8% Convertible Preferred Stock shall be subject to a 4.99% limitation, with the result that the Corporation shall not effect any conversion of the 8% Convertible Preferred Stock, and the holder shall not have the right to convert any portion of the 8% Convertible Preferred Stock, to the extent that after giving effect

to such conversion, the holder (together with the holder's Affiliates) would beneficially own in excess of 4.99% (the "Ownership Limitation Percentage") of the number of shares of the Common Stock outstanding immediately after giving effect to such conversion. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the holder of 8% Convertible Preferred Stock (together with the holder's Affiliates) shall include the number of shares of Common Stock issuable upon conversion of the 8% Convertible Preferred Stock for which determination is being made under this Section 9, but shall exclude the number of shares of Common Stock issuable upon (A) conversion of the remaining unconverted shares of 8% Convertible Preferred Stock beneficially owned by such holder and its Affiliates and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation. Except as set forth in the preceding sentence, for purposes of this Certificate of Designation, beneficial ownership shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended and Regulation 13d-3 thereunder. By written notice to the Corporation, a holder of 8% Convertible Preferred Stock may increase or decrease the Ownership Limitation Percentage to any percentage not in excess of 9.99% as specified in such notice; provided that any such increase will not be effective until the 61st day after such notice is delivered to the Corporation and any such increase or decrease will apply only to the requesting holder and not to any other holder of 8% Convertible Preferred Stock.

10. Reservation of Shares. The Corporation shall reserve at all times so long as any shares of 8% Convertible Preferred Stock remain outstanding, free from preemptive rights, out of its treasury stock (if applicable) or its authorized but unissued shares of Common Stock, or both, solely for the purpose of effecting the conversion of the shares of 8% Convertible Preferred Stock, sufficient shares of Common Stock to provide for the conversion of all outstanding shares of 8% Convertible Preferred Stock.

11. Redemption.

(a) Subject to Section 11(c), if, at any time, the volume-weighted average price of Common Stock on the principal trading market for the Common Stock for the 30 Trading Days immediately preceding such date calculated by adding up the dollars traded for every transaction on each Trading Day (price multiplied by the number of shares traded) and then dividing by the total shares traded for the Trading Day exceeds 300% of the Conversion Price (which is \$2.25 as of the Initial Issue Date) and the average daily trading volume exceeds 150,000 shares for 30 consecutive Trading Days, then the Corporation shall perpetually thereafter have the right to redeem the 8% Convertible Preferred Stock, in whole or in part, by paying the holders thereof the Original Price for each share of 8% Convertible Preferred Stock being redeemed, plus all dividends accrued and unpaid thereon to the date fixed for redemption. If only a portion of 8% Convertible Preferred Stock then outstanding is to be redeemed at a given time, the Corporation shall select the shares to be redeemed in whatever reasonable manner its Board of Directors determines, subject to Section 11(c). To exercise such right, the Corporation, at any time, shall give notice in writing of its election to redeem the 8% Convertible Preferred Stock to the holders of record of 8% Convertible Preferred Stock to be redeemed, addressed to them at their respective addresses appearing on the books of the Corporation. In such notice, the Corporation shall designate a date for the redemption not less than 15 days prior to the date of the notice. Prior to the date of redemption specified in the notice, a

holder may elect to convert the holder's 8% Convertible Preferred Stock into shares of Common Stock in accordance with the procedures for conversion set forth in Section 6 of this Certificate of Designation. If a holder called for redemption does not convert such holder's 8% Convertible Preferred Stock prior to the redemption date, on and after the date of redemption specified in the notice, such holder of 8% Convertible Preferred Stock shall be entitled to receive the Conversion Price for the 8% Convertible Preferred Stock called for redemption, upon presentation and surrender of the certificate or certificates for 8% Convertible Preferred Stock held by the holder, properly endorsed in blank for transfer or accompanied by proper instruments of assignment signed in blank.

(b) Unless the Corporation defaults in paying the Conversion Price pursuant to Section 11 of this Certificate of Designation, from and after the date of redemption specified in the notice (i) all dividends upon 8% Convertible Preferred Stock called for redemption shall cease, and (ii) all rights of the holders of 8% Convertible Preferred Stock called for redemption as stockholders in the Corporation shall cease, except for the right to receive the Conversion Price of the shares on and after the redemption date without interest.

(c) Notwithstanding anything in this Section 11 to the contrary, (i) during the first six months following the original issuance of shares of 8% Convertible Preferred Stock and (ii) during any time in the succeeding six months during which the holder of such 8% Convertible Preferred Stock is ineligible to rely upon Rule 144 promulgated under the Securities Act of 1933, as amended, for the resale of such 8% Convertible Preferred Stock due solely to the Corporation's failure to satisfy Rule 144(c)(1), the Corporation's right to redeem such shares of 8% Convertible Preferred Stock held by such holder shall be suspended.

12. Report or Certificate as to Adjustments. In each case of any adjustment or readjustment in the shares of Common Stock (or other securities) issuable upon the conversion of shares of 8% Convertible Preferred Stock, the Corporation at its expense will promptly deliver a certificate of the Chief Financial Officer showing in reasonable detail the computation of such adjustment or readjustment in accordance with the terms of this Certificate of Designation. The Corporation shall also cause independent certified public accountants of recognized national standing (which may be the regular auditors of the Corporation) selected by the Corporation to verify such computation and prepare a report setting forth such adjustment or readjustment and showing in detail the method of calculation thereof and the facts upon which such adjustment or readjustment is based. The Corporation will forthwith (and in any event not later than 30 days following the occurrence of the event requiring such adjustment) furnish a copy of each such report to each holder, and will, upon the written request at any time of a holder, furnish to such holder a like report setting forth the Conversion Price at the time in effect and showing how it was calculated. The Corporation will also keep copies of all such reports at its principal office and will cause the same to be available for inspection at such office during normal business hours by each holder or any prospective purchaser of shares of 8% Convertible Preferred Stock designated by the holder thereof.

13. Notices of Corporate Action. In the event of (i) any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution (other than the regularly-scheduled dividends described in Section 3 of this Certificate of Designation), or any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right; (ii) any capital reorganization of the Corporation, any reclassification or recapitalization of the capital stock of the Corporation, any consolidation or merger involving the Corporation and any other person or any transfer of all or substantially all the assets of the Corporation to any other person; or (iii) any voluntary or involuntary dissolution, liquidation or winding-up of the Corporation; then the Corporation will deliver to each holder of the 8% Convertible Preferred Stock a notice specifying (x) the date or expected date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend, distribution or right, (y) the date or expected date on which any such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place and the time, if any such time is to be fixed, as of which the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock (or other securities) for the securities or other property deliverable upon such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be furnished at least 20 days prior to the date therein specified; provided, however, if such date is prior to a public announcement relating to the events set forth and on such date the Corporation is either bound by an agreement with a third party of confidentiality with respect to the corporate action the subject of this Section 13, or the Corporation's securities are traded or quoted on any recognized national securities exchange or quotation system, then such notice shall be provided to each holder of the 8% Convertible Preferred Stock simultaneously with the notice provided to the Corporation's stockholders.

14. Severability of Provisions. Whenever possible, each provision hereof shall be interpreted in a manner as to be effective and valid under applicable law, but if any provision hereof is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating or otherwise adversely affecting the remaining provisions hereof. If a court of competent jurisdiction should determine that a provision hereof would be valid or enforceable if a period of time were extended or shortened or a particular percentage were increased or decreased, then such court may make such change as shall be necessary to render the provision in question effective and valid under application law.

15. No Other Rights or Preferences. The 8% Convertible Preferred Stock shall have no other rights or preferences other than set forth in this Certificate of Designation.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Designation on behalf of the Corporation as of the 17th day of December, 2013.

PROVECTUS BIOPHARMACEUTICALS, INC.

By: /s/ Peter R. Culpepper

Name: Peter R. Culpepper

Title: Chief Financial Officer and Chief Operating
Officer

PROVECTUS BIOPHARMACEUTICALS, INC.**CERTIFICATE OF DESIGNATION****(Pursuant to Section 151 of the General Corporation Law of the State of Delaware)****Series A 8% Convertible Preferred Stock****par value \$.001 per share**

PROVECTUS BIOPHARMACEUTICALS, INC., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "Corporation"), by its Chief Financial Officer and Chief Operating Officer,

DOES HEREBY CERTIFY:

FIRST: That, pursuant to authority expressly vested in the Board of Directors of the Corporation (the "Board of Directors") by the provisions of its certificate of incorporation (the "Certificate of Incorporation"), the Board of Directors duly adopted by unanimous written consent the following resolution providing for the designation of 5,000,000 shares of Series A 8% Convertible Preferred Stock, \$.001 per share:

RESOLVED, that the Board of Directors, pursuant to authority expressly vested in it by the provisions of the Certificate of Incorporation of the Corporation, the Board of Directors hereby authorizes the issuance from time to time of the Series A 8% Convertible Preferred Stock of the Corporation and hereby fixes the powers, designations, preferences, limitations, restrictions and relative rights of the Series A 8% Convertible Preferred Stock of the Corporation, in addition to those set forth in said Certificate of Incorporation, to be in their entirety as follows:

1. Designation and Number of Shares. One series of Preferred Stock is established and designated as Series A 8% Convertible Preferred Stock, par value \$.001 per share (the "Series A 8% Convertible Preferred Stock"). The number of shares constituting the Series A 8% Convertible Preferred Stock shall be 5,000,000 shares.

2. Definitions. For the purpose of this Certificate of Designation, the following definitions apply:

(a) "Affiliate" means, with respect to any person: (a) that directly or indirectly, through one or more intermediaries Controls, or is controlled by, or is under common control with, such person.

(b) "Business Day" means each Monday, Tuesday, Wednesday, Thursday or Friday on which banking institutions are not authorized or obligated by law, regulation or executive order to close in New York, New York.

(c) "Change of Control Transaction" means the occurrence after the date hereof of any of (a) an acquisition after the date hereof by an individual or legal entity or "group" (as described in Rule 13d-5(b)(1) promulgated under the 1934 Act) of effective control (whether through legal or beneficial ownership of capital stock of the Corporation, by contract or otherwise) of in excess of 33% of the voting securities of the Corporation (other than by means of conversion or exercise of Series A 8% Convertible Preferred Stock and the Securities issued together with the Series A 8% Convertible Preferred Stock), (b) the Corporation merges into or consolidates with any other Person, or any Person merges into or consolidates with the Corporation and, after giving effect to such transaction, the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the Corporation or the successor entity of such transaction, (c) the Corporation sells or transfers all or substantially all of its assets to another Person and the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the acquiring entity immediately after the transaction, (d) a replacement at one time or within a one year period of more than one-half of the members of the Board of Directors which is not approved by a majority of those individuals who are members of the Board of Directors on the Original Issue Date (or by those individuals who are serving as members of the Board of Directors on any date whose nomination to the Board of Directors was approved by a majority of the members of the Board of Directors who are members on the Original Issue Date), or (e) the execution by the Corporation of an agreement to which the Corporation is a party or by which it is bound, providing for any of the events set forth in clauses (a) through (d) above.

(d) "Commission" means the United States Securities and Exchange Commission.

(e) "Common Stock" means the common stock, par value \$.001 per share, authorized for issuance under the Certificate of Incorporation.

(f) "Control" (including the terms "controlling," "controlled by" or "under common control with") means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract or otherwise.

(g) "Conversion Price" means \$0.75 per share of Series A 8% Convertible Preferred Stock, as adjusted from time to time as set forth in this Certificate of Designation.

(h) "Conversion Shares" shall have the meaning as set forth in Section 6(a) herein.

(i) "Effective Date" means the date that the Registration Statement filed by the Corporation pursuant to the Registration Rights Agreement is first declared effective by the Commission.

(j) "Equity Conditions" means, during the period in question, (a) the Corporation shall have duly honored all conversions scheduled to occur or occurring by virtue of one or more Notices of Conversion of the applicable holder on or prior to the

dates so requested or required, if any, (b) the Corporation shall have paid all liquidated damages and other amounts owing to the applicable holder in respect of the Series A 8% Convertible Preferred Stock, (c)(i) there is an effective Registration Statement pursuant to which the holders are permitted to utilize the prospectus thereunder to resell all of the shares of Common Stock issuable pursuant to the Transaction Documents (and the Corporation believes, in good faith, that such effectiveness will continue uninterrupted for the foreseeable future) or (ii) all of the Conversion Shares issuable pursuant to the Transaction Documents (and shares issuable in lieu of cash payments of dividends) may be resold pursuant to Rule 144 without volume or manner-of-sale restrictions or current public information requirements as determined by the counsel to the Corporation as set forth in a written opinion letter to such effect, addressed and acceptable to the Transfer Agent and the affected holders, (d) the Common Stock is trading on a Trading Market and all of the shares of Common Stock issuable pursuant to the Transaction Documents are listed or quoted for trading on such Trading Market (and the Corporation believes, in good faith, that trading of the Common Stock on a Trading Market will continue uninterrupted for the foreseeable future), (e) there is a sufficient number of authorized, but unissued and otherwise unreserved, shares of Common Stock for the issuance of all of the shares then issuable pursuant to the Transaction Documents, (f) the issuance of the shares in question to the applicable Holder would not violate the limitations set forth in Section 9 and herein, (g) there has been no public announcement of a pending or proposed Fundamental Transaction or Change of Control Transaction that has not been consummated, (h) the applicable Holder is not in possession of any information provided by the Corporation that constitutes, or may constitute, material non-public information, and (i) for each Trading Day in a period of 20 consecutive Trading Days prior to the applicable date in question, the daily trading volume for the Common Stock on the principal Trading Market exceeds 150,000 shares per Trading Day (subject to adjustment for forward and reverse stock splits or similar capital reorganizations).

(k) "Fundamental Transaction" shall have the meaning set forth in Section 8(d).

(l) "GAAP" means United States generally accepted accounting principles.

(m) "Junior Stock" means the Common Stock and each other class or series of the Corporation's capital stock, whether common, preferred or otherwise, the terms of which do not provide that shares of such class or series rank senior to or on par with the Series A 8% Convertible Preferred Stock as to distributions of dividends and distributions upon the liquidation, winding-up and dissolution of the Corporation

(n) "Liens" means a lien, charge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

(o) "Market Price" means, as of a determination date, (i) the volume-weighted average price of Common Stock on the OTCBB for the 15 Trading Days immediately preceding such date calculated by adding up the dollars traded for every transaction on each Trading Day (price multiplied by the number of shares traded) and then dividing by the total shares traded for the Trading Day, or (ii) if the OTCBB is not the principal

trading market for the shares of Common Stock, the volume-weighted average price of Common Stock on the principal trading market for the Common Stock during the same period and calculated in the same manner set forth above, or (iii) if market value cannot be calculated as of such date on any of the foregoing bases, the Market Price shall be the fair market value as reasonably determined in good faith by the Board of Directors of the Corporation. The manner of determining the Market Price of the Common Stock set forth in the foregoing definition shall apply with respect to any other security in respect of which a determination as to market value must be made under this Certificate of Designation.

(p) "Original Issue Date" means the date of the first issuance of any shares of the Series A 8% Convertible Preferred Stock regardless of the number of transfers of any particular shares of Series A 8% Convertible Preferred Stock and regardless of the number of certificates which may be issued to evidence such Series A 8% Convertible Preferred Stock.

(q) "Original Issue Price" means the original issue price of \$0.75 per share of Series A 8% Convertible Preferred Stock, as adjusted for any combinations, consolidations, recapitalizations, reorganizations, reclassifications, stock distributions, stock dividends (other than any dividend paid on the Series A 8% Convertible Preferred Stock) or splits with respect to such shares.

(r) "Permitted Indebtedness" means (a) the Indebtedness existing on the Original Issue Date and set forth on Schedule 4.30 attached to the Purchase Agreement and (b) lease obligations and purchase money indebtedness of up to \$250,000, in the aggregate, incurred in connection with the acquisition of capital assets and lease obligations with respect to newly acquired or leased assets

(s) "Permitted Lien" means the individual and collective reference to the following: (a) Liens for taxes, assessments and other governmental charges or levies not yet due or Liens for taxes, assessments and other governmental charges or levies being contested in good faith and by appropriate proceedings for which adequate reserves (in the good faith judgment of the management of the Corporation) have been established in accordance with GAAP, (b) Liens imposed by law which were incurred in the ordinary course of the Corporation's business, such as carriers', warehousemen's and mechanics' Liens, statutory landlords' Liens, and other similar Liens arising in the ordinary course of the Corporation's business, and which (x) do not individually or in the aggregate materially detract from the value of such property or assets or materially impair the use thereof in the operation of the business of the Corporation and its consolidated Subsidiaries or (y) are being contested in good faith by appropriate proceedings, which proceedings have the effect of preventing for the foreseeable future the forfeiture or sale of the property or asset subject to such Lien, (c) Liens incurred in connection with Permitted Indebtedness under clause (a) thereunder, and (d) Liens incurred in connection with Permitted Indebtedness under clause (b) thereunder, provided that such Liens are not secured by assets of the Corporation or its Subsidiaries other than the assets so acquired or leased.

(t) "Person" means an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

(u) "Purchase Agreement" means the Securities Purchase Agreement, dated as of the February 22, 2013, among the Corporation and the original holders, as amended, modified or supplemented from time to time in accordance with its terms.

(v) "Registration Rights Agreement" means the Registration Rights Agreement, dated as of the date of the Purchase Agreement, among the Corporation and the original holders, in the form of Exhibit B attached to the Purchase Agreement.

(w) "Registration Statement" means a registration statement meeting the requirements set forth in the Registration Rights Agreement and covering the resale of the Underlying Shares by each holder as provided for in the Registration Rights Agreement.

(x) "Rule 144" means Rule 144 promulgated by the Commission pursuant to the 1933 Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

(y) "Trading Day" means a day on which the principal Trading Market is open for business.

(z) "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE MKT, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange or the OTC Bulletin Board (or any successors to any of the foregoing).

(aa) "Transaction Documents" means this Certificate of Designation, the Purchase Agreement, the Warrants, the Registration Rights Agreement, all exhibits and schedules thereto and hereto, and any other documents or agreements executed in connection with the transactions contemplated pursuant to the Purchase Agreement.

(bb) "Underlying Shares" means, collectively, the Conversion Shares and the Warrant Shares.

(cc) "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTC Bulletin Board is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board,

(c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink OTC Markets, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Securities then outstanding and reasonably acceptable to the Corporation, the fees and expenses of which shall be paid by the Corporation.

(dd) "Warrants" means, collectively, the Common Stock purchase warrants delivered to the Holder at the Closing in accordance with Section 3.2(a) of the Purchase Agreement, which Warrants shall be exercisable immediately and have a term of exercise equal to five years, in the form of Exhibit A attached to the Purchase Agreement.

(ee) "Warrant Shares" means the shares of Common Stock issuable upon exercise of the Warrants.

(ff) "8% Convertible Preferred Stock" shall mean shares of the Corporation's 8% Convertible Preferred Stock, par value \$0.001 per share, convertible into Common Stock, with such terms as described in the Certificate of Designation for such 8% Convertible Preferred Stock, as may be amended from time to time.

(gg) "1933 Act" means the Securities Act of 1933, as amended, or any successor statute, and the rules and regulations promulgated thereunder.

3. Rank. The Series A 8% Convertible Preferred Stock shall rank (i) senior to the Junior Stock and (ii) on parity with the 8% Convertible Preferred Stock and any other class or series of capital stock of the Corporation created specifically ranking by its terms on parity with the Series A 8% Convertible Preferred Stock, in each case as to distributions of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary and the payment of dividends.

4. Dividends.

(a) The holders of Series A 8% Convertible Preferred Stock shall be entitled to receive, only out of assets legally available for payment of dividends, cumulative cash dividends on the Original Issue Price, and no more, payable quarterly in arrears on each January 15, April 15, July 15 and October 15; provided, however, if any such day is not a Business Day, then payment of any dividend otherwise payable on that date will be made on the next succeeding day that is a Business Day (without any interest or other payment in respect of such delay) (each such day on which dividends are payable a "Dividend Payment Date") in cash, or at the Corporation's option, in duly authorized, validly issued, fully paid and non-assessable shares of Common Stock as set forth in this Section 4(a), or a combination thereof (the dollar amount to be paid in shares of Common Stock, the "Dividend Share Amount"). The period from and including the date of issuance of the Series A 8% Convertible Preferred Stock or any Dividend Payment Date to but excluding the next Dividend Payment Date is a "Dividend Period." Dividends on each share of

Series A 8% Convertible Preferred Stock will accrue on the Original Issue Price for each related Dividend Period at a rate equal to 8% per annum. The form of dividend payments to each holder shall be determined in the following order of priority: (i) if funds are legally available for the payment of dividends and the Equity Conditions have not been met during the 20 consecutive Trading Days immediately prior to the applicable Dividend Payment Date (the "Dividend Notice Period"), in cash only, (ii) if funds are legally available for the payment of dividends and the Equity Conditions have been met during the Dividend Notice Period, at the sole election of the Corporation, in cash or shares of Common Stock which shall be valued at the Dividend Conversion Rate, (iii) if funds are not legally available for the payment of dividends and the Equity Conditions have been met during the Dividend Notice Period, in shares of Common Stock which shall be valued at the Dividend Conversion Rate (as defined in Section 4(b)), (iv) if funds are not legally available for the payment of dividends and the Equity Condition relating to an effective Registration Statement has been waived by such Holder, as to such Holder only, in unregistered shares of Common Stock which shall be valued at the Dividend Conversion Rate, and (v) if funds are not legally available for the payment of dividends and the Equity Conditions have not been met during the Dividend Notice Period, then, at the election of such Holder, such dividends shall accrue to the next Dividend Payment Date or shall be accreted to, and increase, the outstanding Original Issue Price.

(b) The number of shares of Common Stock payable under this Section shall be the quotient of amount of the cash dividend per share of Series A 8% Convertible Preferred Stock calculated under Section 4(a) divided by the Market Price determined as of the Dividend Payment Date (the "Dividend Conversion Rate" and such shares of Common Stock, the "Dividend Conversion Shares").

(c) Any accrued and unpaid dividends payable under Section 4(a) which are not paid within five Business Days of such accrued and unpaid dividends' Dividend Payment Date shall bear interest at the rate of 13% per annum from such Dividend Payment Date until the dividend is paid in full. Such additional interest shall be paid in cash or Common Stock in the manner set forth in Section 4(a) or Section 4(b).

(d) No distribution shall be made with respect to the Common Stock or the Series A 8% Convertible Preferred Stock (except for the dividend permitted this Section 4) until all accumulated dividends have been declared and paid on the Series A 8% Convertible Preferred Stock. After the payment of the dividends described in this Section 4, the Board of Directors may declare and pay dividends on Common Stock; provided, however, that any dividend declared on the Common Stock shall be paid on a pro rata basis to holders of Common Stock and Series A 8% Convertible Preferred Stock on an as-converted basis.

5. Liquidation Rights. Upon the voluntary or involuntary liquidation, winding-up or dissolution of the Corporation, the Corporation shall designate a time period (which shall not be less than ten business days) during which the holders of Series A 8% Convertible Preferred Stock may exercise their rights to convert all or a portion of their Series A 8% Convertible Preferred Stock into Common Stock as set forth in Section 7. Each holder of Series A 8% Convertible Preferred Stock that does not exercise its rights to convert shall be entitled to receive

out of the assets of the Corporation, for each share of Series A 8% Convertible Preferred Stock, cash in an amount equal to (i) the Original Issue Price plus (ii) all accrued but unpaid dividends on the share, before any payment or distribution shall be made on the Junior Stock, but after payment of all outstanding indebtedness and all amounts due on liquidation, dissolution or winding-up in respect of all preferred stock of the Corporation which by its terms is senior to the Series A 8% Convertible Preferred Stock, if any. After the payment to the holders of Series A 8% Convertible Preferred Stock of the full preferential amounts set forth above, the holders of Series A 8% Convertible Preferred Stock shall have no right or claim to any of the remaining assets of the Corporation. Shares of Series A 8% Convertible Preferred Stock shall not be entitled to participate in the liquidation as shares of Common Stock without first foregoing the Series A 8% Convertible Preferred Stock liquidation preference. If the assets of the Corporation available for distribution to the holders of Series A 8% Convertible Preferred Stock upon any liquidation, dissolution or winding-up of the Corporation are insufficient to pay the full preferential amount to which the holders of Series A 8% Convertible Preferred Stock are entitled, then the holders of Series A 8% Convertible Preferred Stock shall share in such distribution of assets pro rata in accordance with the amount that would be payable on such distribution if the amounts to which the holders of Series A 8% Convertible Preferred Stock were entitled were paid in full.

For purposes of this Section 5, a merger or other corporate reorganization in which the Corporation's stockholders shall receive cash or securities of another corporation or entity (except in connection with a consolidation or merger in which the holders of voting stock of the Corporation immediately before the consolidation or merger will in the aggregate own more than 50% of the voting shares of the continuing or surviving corporation after the consolidation or merger) or any transaction in which all or substantially all of the assets of the Corporation are sold shall be treated as a liquidation for purposes of the liquidation preference contained in this Section 5. Prior to the consummation of such transaction, the Corporation shall designate a time period (which shall not be less than ten business days) during which the holders of Series A 8% Convertible Preferred Stock may exercise their rights to convert all or a portion of their Series A 8% Convertible Preferred Stock into Common Stock as set forth in Section 7.

6. Voting Rights.

(a) *Generally.* Except as otherwise required by Delaware law or as expressly provided in this Certificate of Designation or the Certificate of Incorporation, the holders of Series A 8% Convertible Preferred Stock shall not have any voting rights. With respect to any matter on which the holders of Common Stock shall be entitled to vote, the holders of shares of Series A 8% Convertible Preferred Stock shall vote together with the holders of Common Stock, and not as a separate class, and each share of Series A 8% Convertible Preferred Stock shall have a number of votes equal to the number of shares of Common Stock then issuable upon conversion, subject to the Ownership Limitation Percentage (as defined in Section 10).

(b) *Certain Actions.* In addition to the voting rights described in Section 6(a) above, so long as at least 25% of the aggregate number of originally-issued shares of Series A 8% Convertible Preferred Stock are outstanding, the Corporation will not, without the written consent or affirmative vote of the holders of at least a majority of the

then outstanding shares of Series A 8% Convertible Preferred Stock, voting as a separate class, (i) take any action that creates any new class or series of equity securities or any other security convertible into equity securities ranking senior or pari passu to the Series A 8% Convertible Preferred Stock with respect to redemption, voting, dividends, or liquidation rights; (ii) amend, alter, or repeal any provision of the Certificate of Incorporation or Bylaws in a manner that is adverse to the relative rights, preferences, qualifications, limitation or restrictions of the Series A 8% Convertible Preferred Stock; (iii) declare or pay a dividend or distribution on any securities of the Corporation prior to the payment of the dividends required by this Certificate of Designation to the holders of Series A 8% Convertible Preferred Stock; (iv) other than Permitted Indebtedness, enter into, create, incur, assume, guarantee or suffer to exist any indebtedness for borrowed money of any kind, including but not limited to, a guarantee, on or with respect to any of its property or assets now owned or hereafter acquired or any interest therein or any income or profits therefrom; (v) other than Permitted Liens, enter into, create, incur, assume or suffer to exist any Liens of any kind, on or with respect to any of its property or assets now owned or hereafter acquired or any interest therein or any income or profits therefrom; (vi) repay, repurchase or offer to repay, repurchase or otherwise acquire more than a de minimis number of shares of its Common Stock, Common Stock Equivalents or Junior Stock, other than as to (x) the Conversion Shares or Warrant Shares as permitted or required under the Transaction Documents and (y) repurchases of Common Stock or Convertible Securities of departing officers and directors of the Corporation, provided that such repurchases shall not exceed an aggregate of \$100,000 for all officers and directors; or (vii) approve any of the actions set forth in the second paragraph of Section 5.

7. Optional Conversion by Holder. The Series A 8% Convertible Preferred Stock shall be convertible into Common Stock of the Corporation as follows:

(a) *Optional Conversion*. Subject to and upon compliance with the provisions of this Section 7, the holder of any shares of Series A 8% Convertible Preferred Stock shall have the right at such holder's option, at any time or from time to time, to convert shares of Series A 8% Convertible Preferred Stock into such number of shares of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price by the Conversion Price, multiplied by the number of shares of Series A 8% Convertible Preferred Stock being converted (the "Conversion Shares"). Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as Annex A (a "Notice of Conversion"). Each Notice of Conversion shall specify the number of shares of Preferred Stock to be converted, the number of shares of Series A 8% Convertible Preferred Stock owned prior to the conversion at issue, the number of shares of Series A 8% Convertible Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable Holder delivers by facsimile such Notice of Conversion to the Corporation (such date, the "Conversion Date"). If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be the date that such Notice of Conversion to the Corporation is deemed delivered hereunder. No ink-original Notice of Conversion shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of

Conversion form be required. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. To effect conversions of shares of Series A 8% Convertible Preferred Stock, a Holder shall not be required to surrender the certificate(s) representing the shares of Series A 8% Convertible Preferred Stock to the Corporation unless all of the shares of Preferred Stock represented thereby are so converted, in which case such Holder shall deliver the certificate representing such shares of Series A 8% Convertible Preferred Stock promptly following the Conversion Date at issue. Shares of Series A 8% Convertible Preferred Stock converted into Common Stock or redeemed in accordance with the terms hereof shall be canceled and shall not be reissued.

(b) *Mechanics of Conversion.* Not later than three (3) Trading Days after each Conversion Date (the Share Delivery Date"), the Corporation shall deliver, or cause to be delivered, to the converting holder (A) a certificate or certificates representing the Conversion Shares which, on or after the earlier of (i) the six month anniversary of the Original Issue Date or (ii) the Effective Date, shall be free of restrictive legends and trading restrictions (other than those which may then be required by the Purchase Agreement) representing the number of Conversion Shares being acquired upon the conversion of the Series A 8% Convertible Preferred Stock (including, if the Corporation has given continuous notice pursuant to Section 4(a) for payment of dividends in shares of Common Stock at least 20 Trading Days prior to the date on which the Notice of Conversion is delivered to the Corporation, shares of Common Stock representing the payment of accrued dividends otherwise determined pursuant to Section 3(a) but assuming that the Dividend Notice Period is the 20 Trading Days period immediately prior to the date on which the Notice of Conversion is delivered to the Corporation and excluding for such issuance the condition that the Corporation deliver the Dividend Share Amount as to such dividend payment prior to the commencement of the Dividend Notice Period), and (B) a bank check in the amount of accrued and unpaid dividends (if the Corporation has elected or is required to pay accrued dividends in cash). On or after the earlier of (i) the six month anniversary of the Original Issue Date or (ii) the Effective Date, the Corporation shall use its best efforts to deliver any certificate or certificates required to be delivered by the Corporation under this Section 7 electronically through the Depository Trust Company or another established clearing corporation performing similar functions.

(c) *Failure to Deliver Certificates.* If, in the case of any Notice of Conversion, such certificate or certificates are not delivered to or as directed by the applicable holder by the Share Delivery Date, the holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such certificate or certificates, to rescind such Conversion, in which event the Corporation shall promptly return to the holder any original Series A 8% Convertible Preferred Stock certificate delivered to the Corporation and the holder shall promptly return to the Corporation the Common Stock certificates issued to such holder pursuant to the rescinded Conversion Notice.

(d) *Obligation Absolute; Partial Liquidated Damages* The Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Series A 8% Convertible Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such holder or any other person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares; provided, however, that such delivery shall not operate as a waiver by the Corporation of any such action that the Corporation may have against such holder. In the event a holder shall elect to convert any or all of its Series A 8% Convertible Preferred Stock, the Corporation may not refuse conversion based on any claim that such holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, unless an injunction from a court, on notice to holder, restraining and/or enjoining conversion of all or part of the Series A 8% Convertible Preferred Stock of such holder shall have been sought and obtained, and the Corporation posts a surety bond for the benefit of such holder in the amount of 150% of the aggregate Original Issue Price of the Series A 8% Convertible Preferred Stock which is subject to the injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such holder to the extent it obtains judgment. In the absence of such injunction, the Corporation shall issue Conversion Shares and, if applicable, cash, upon a properly noticed conversion. If the Corporation fails to deliver to a Holder such certificate or certificates pursuant to Section 7(b) on the second Trading Day after the Share Delivery Date applicable to such conversion, the Corporation shall pay to such Holder, in cash, as liquidated damages and not as a penalty, for each \$5,000 of Series A 8% Convertible Preferred Stock being converted, \$50 per Trading Day (increasing to \$100 per Trading Day on the third Trading Day and increasing to \$200 per Trading Day on the sixth Trading Day after such damages begin to accrue) for each Trading Day after such second Trading Day after the Share Delivery Date until such certificates are delivered or Holder rescinds such conversion.

(e) *Compensation for Buy-In on Failure to Timely Deliver Certificates Upon Conversion* In addition to any other rights available to the holder, if the Corporation fails for any reason to deliver to a holder the applicable certificate or certificates by the Share Delivery Date pursuant to Section 7(b), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such holder of the Conversion Shares which such holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "Buy-In"), then the Corporation shall (A) pay in cash to such holder (in addition to any other remedies available to or elected by such holder) the amount, if any, by which (x) such holder's total purchase price (including any brokerage commissions) for the Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the

option of such holder, either reissue (if surrendered) the shares of Series A 8% Convertible Preferred Stock equal to the number of shares of Series A 8% Convertible Preferred Stock submitted for conversion (in which case, such conversion shall be deemed rescinded) or deliver to such holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 7(b). For example, if a holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted conversion of shares of Series A 8% Convertible Preferred Stock with respect to which the actual sale price of the Conversion Shares (including any brokerage commissions) giving rise to such purchase obligation was a total of \$10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such holder \$1,000. The holder shall provide the Corporation written notice indicating the amounts payable to such holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver certificates representing shares of Common Stock upon conversion of the shares of Series A 8% Convertible Preferred Stock as required pursuant to the terms hereof

(f) *Transfer Taxes and Expenses.* The issuance of certificates for shares of the Common Stock on conversion of this Series A 8% Convertible Preferred Stock shall be made without charge to any holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such certificates, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate upon conversion in a name other than that of the holders of such shares of Series A 8% Convertible Preferred Stock and the Corporation shall not be required to issue or deliver such certificates unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Conversion.

(g) *Fractional Shares.* No fractional shares of Common Stock shall be issued upon conversion of shares of Series A 8% Convertible Preferred Stock. If more than one share of Series A 8% Convertible Preferred Stock shall be surrendered for conversion at any one time by the same holder, the number of full shares of Common Stock issuable upon conversion thereof shall be computed on the basis of the aggregate number of shares of Series A 8% Convertible Preferred Stock so surrendered. Instead of any fractional shares of Common Stock which would otherwise be issuable upon conversion of any shares of Series A 8% Convertible Preferred Stock, the Corporation shall pay a cash adjustment in respect of such fractional interest in an amount equal to (i) that fractional interest multiplied by (ii) the sum of (A) the Original Issue Price plus (B) any dividends on such share of Series A 8% Convertible Preferred Stock which such holder is entitled to receive, but has not yet received.

8. Optional Conversion by the Corporation.

(a) *Optional Conversion.* If, at any time, the VWAP for the 30 Trading Days immediately preceding such date calculated by adding up the dollars traded for every transaction on each Trading Day (price multiplied by the number of shares traded) and then dividing by the total shares traded for the Trading Day exceeds 300% of the Conversion Price (which is \$2.25 as of the Initial Issue Date) and the average daily trading volume exceeds 150,000 shares subject to adjustment for forward and reverse stock splits and the like) for 30 consecutive Trading Days ("Threshold Period"), the Corporation may, within 1 Trading Day after the end of any such Threshold Period, deliver a written notice to all holders ("Company Conversion Notice" and the date such notice is delivered to all Holders, the "Company Conversion Notice Date"), to convert all or a portion of the shares of Series A 8% Convertible Preferred Stock into such number of shares of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price by the Conversion Price, multiplied by the number of shares of Series A 8% Convertible Preferred Stock being converted. The "Conversion Date" for purposes of Section 7 shall be deemed to occur on the third Trading Day following the Forced Conversion Notice Date (such third Trading Day, the "Company Conversion Date"). If only a portion of Series A 8% Convertible Preferred Stock then outstanding is to be converted, the Corporation shall select the shares to be converted in whatever reasonable manner its Board of Directors determines; provided, however that, subject to the next sentence, such selection shall be pro rata among the holders of the Series A 8% Convertible Preferred Stock. Notwithstanding the foregoing, if the Equity Conditions have not been met during the applicable Threshold Period through and including the later of the Company Conversion Date and the Trading Day after the date that the Conversion Shares issuable pursuant to such conversion are actually delivered to the holders pursuant to the Company Conversion Notice, the Corporation's right to deliver a Company Conversion Notice and convert such shares of Series A 8% Convertible Preferred Stock held by such holder shall be suspended. For purposes of clarification, a conversion pursuant to this Section shall be subject to all of the provisions of Section 7 and Section 10, including, without limitation, the provisions requiring payment of liquidated damages and limitations on conversions.

(b) *Procedural Requirements.* The Corporation shall send the Company Conversion Notice to all holders of record of shares of Series A 8% Convertible Preferred Stock that are converted pursuant to Section 8(a). Upon receipt of such notice, each holder of shares of Series A 8% Convertible Preferred Stock being converted shall surrender his, her or its certificate or certificates for all such shares of Series A 8% Convertible Preferred Stock (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. All rights with respect to the Series A 8% Convertible Preferred Stock that are converted pursuant to Section 8(a), including the rights, if any, to receive dividends, receive notices and vote (other than as a holder of Common Stock), will terminate upon the Company Conversion Date. As soon as practicable after the conversion and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Series A 8% Convertible Preferred Stock, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a

certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions of Section 8(a), together with cash as provided in Section 7(b) in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the Series A 8% Convertible Preferred Stock. No fractional shares of Common Stock shall be issued upon conversion of shares of Series A 8% Convertible Preferred Stock, and a cash adjustment shall be paid for such fractional shares as set forth in Section 7(b).

9. Adjustments to Conversion Price.

(a) *Adjustment for Stock Splits and Combinations* If at any time or from time to time after the date that the first share of Series A 8% Convertible Preferred Stock is issued (the "Original Issue Date") the Corporation effects a subdivision of the outstanding Common Stock without a corresponding subdivision of the Series A 8% Convertible Preferred Stock, the Conversion Price in effect immediately before that subdivision shall be proportionately decreased. Conversely, if at any time or from time to time after the Original Issue Date the Corporation combines the outstanding shares of Common Stock into a smaller number of shares without a corresponding combination of the Series A 8% Convertible Preferred Stock, the Conversion Price in effect immediately before that subdivision shall be proportionately increased. Any adjustment under this Section 9(a) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) *Adjustment for Common Stock Dividends and Distributions* If at any time from time to time after the Original Issue Date the Corporation pays a dividend or other distribution in additional shares of Common Stock to the holders of Common Stock, the Conversion Price in effect immediately before the dividend or distribution shall be decreased as follows:

(i) The Conversion Price shall be adjusted by multiplying the Conversion Price then in effect by a fraction equal to:

(1) a numerator which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance, and

(2) the denominator which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

(ii) If the Corporation fixes a record date to determine which holders of Common Stock are entitled to receive such dividend or other distribution, the Conversion Price shall be fixed as of the close of business on such record date and the number of shares of Common Stock shall be calculated immediately prior to the close of business on such record date; and

(iii) If such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price shall be adjusted to reflect the actual payment of such dividend or distribution.

(c) *Adjustment for Reclassification, Exchange and Substitution.* If at any time or from time to time after the Original Issue Date, the Common Stock issuable upon the conversion of the Series A 8% Convertible Preferred Stock is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification or otherwise (other than a subdivision or combination of shares or stock dividend or a reorganization, merger, consolidation or sale of assets provided for elsewhere in this Section 9), in any such event each holder of Series A 8% Convertible Preferred Stock shall then have the right to convert such stock into the kind and amount of stock and other securities and property receivable upon such recapitalization, reclassification or other change by holders of the maximum number of shares of Common Stock into which such shares of Series A 8% Convertible Preferred Stock could have been converted immediately prior to such recapitalization, reclassification or change, all subject to further adjustment as provided herein or with respect to such other securities or property by the terms thereof.

(d) *Reorganizations, Mergers or Consolidations.* If, at any time while this Preferred Stock is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent conversion of this Series A 8% Convertible Preferred Stock, the holder shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 10 on the conversion of this Series A 8% Convertible Preferred Stock), the number of shares of

Common Stock of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Series A 8% Convertible Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 10 on the conversion of this Series A 8% Convertible Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any conversion of this Series A 8% Convertible Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the holders new preferred stock consistent with the foregoing provisions and evidencing the holders' right to convert such preferred stock into Alternate Consideration. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Corporation under this Certificate of Designation and the other Transaction Documents (as defined in the Purchase Agreement) in accordance with the provisions of this Section 9(d) pursuant to written agreements in form and substance reasonably satisfactory to the holder and approved by the holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the holder of this Series A 8% Convertible Preferred Stock, deliver to the holder in exchange for this Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Series A 8% Convertible Preferred Stock which is convertible for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of this Series A 8% Convertible Preferred Stock (without regard to any limitations on the conversion of this Series A 8% Convertible Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the conversion price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of this Series A 8% Convertible Preferred Stock immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designation and the other Transaction Documents referring to the "Corporation" shall refer instead to the Successor

Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Corporation herein.

(e) *Adjustments for Dilutive Issues.*

(i) Special Definitions. For purposes of Section 9(e), the following definitions shall apply:

(1) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(2) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(3) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Section 9(e)(ii), deemed to be issued) by the Corporation after the Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "Exempted Securities"):

(A) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on the Series A 8% Convertible Preferred Stock;

(B) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Section 9(a) through Section 9(d);

(C) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(D) shares of Common Stock, Options or Convertible Securities issued pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided, that such issuances are approved by the Board of Directors of the Corporation; or

(E) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the Board of Directors of the Corporation.

(ii) Deemed Issue of Additional Shares of Common Stock

(1) If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(2) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Conversion Price pursuant to the terms of Section 9(e)(iii), are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this Section 9(e)(ii)(2) shall have the effect of increasing the Conversion Price to an amount which exceeds the lower of (i) the Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(3) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Conversion Price pursuant to the terms of Section 9(e)(iii) (either because the consideration per share (determined pursuant to Section 9(e)(iv)) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Conversion Price then in effect, or because such Option or Convertible Security was issued before the Original Issue Date), are revised after the Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Section 9(e)(ii)(1)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(4) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Conversion Price provided for in this Section 9(e)(ii) shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (2) and (3) of this Section 9(e)(ii)). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Conversion Price that would result under the terms of this Section 9(e)(ii) at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

(iii) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock In the event the Corporation shall at any time after the Original Issue Date, issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section 9(e)(ii)), without consideration or for a consideration per share less than the applicable Conversion Price in effect immediately prior to such issue, then the Conversion Price shall be reduced, concurrently with such issue, to the consideration per share received by the Corporation for such issue or deemed issue of the Additional Shares of Common Stock; provided that if such issuance or deemed issuance was without consideration, then the Corporation shall be deemed to have received an aggregate of \$.001 of consideration for all such Additional Shares of Common Stock issued or deemed to be issued.

(iv) Determination of Consideration. For purposes of this Section 9(e)(iv), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(1) Cash and Property. Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(B) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

(C) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as determined in good faith by the Board of Directors of the Corporation.

(2) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 9(e)(ii), relating to Options and Convertible Securities, shall be determined by dividing

(A) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a

subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(B) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

(v) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price pursuant to the terms of Section 9(e)(iii), then, upon the final such issuance, the Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

(f) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 9(b) above, if at any time the Corporation grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the holder of will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the holder could have acquired if the holder had held the number of shares of Common Stock acquirable upon complete conversion of such holder's Series A 8% Convertible Preferred Stock (without regard to any limitations on exercise hereof, including without limitation, the Ownership Limitation Percentage) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the holder's right to participate in any such Purchase Right would result in the holder exceeding the Ownership Limitation Percentage, then the holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the holder until such time, if ever, as its right thereto would not result in the holder exceeding the Ownership Limitation Percentage).

10. Beneficial Ownership Limitation. Notwithstanding anything in this Certificate of Designation to the contrary, the right of the holder to convert the Series A 8% Convertible Preferred Stock shall be subject to a 4.99% limitation, with the result that the Corporation shall not effect any conversion of the Series A 8% Convertible Preferred Stock, and the holder shall not have the right to convert any portion of the Series A 8% Convertible Preferred Stock, to the extent that after giving effect to such conversion, the holder (together with the holder's Affiliates) would beneficially own in excess of 4.99% (the "Ownership Limitation Percentage") of the number of shares of the Common Stock outstanding immediately after giving effect to such conversion. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the holder of Series A 8% Convertible Preferred Stock (together with the holder's Affiliates) shall include the number of shares of Common Stock issuable upon conversion of the Series A 8% Convertible Preferred Stock for which determination is being made under this Section 9(e)(v), but shall exclude the number of shares of Common Stock issuable upon (A) conversion of the remaining unconverted shares of Series A 8% Convertible Preferred Stock beneficially owned by such holder and its Affiliates and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation. Except as set forth in the preceding sentence, for purposes of this Certificate of Designation, beneficial ownership shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended and Regulation 13d-3 thereunder. By written notice to the Corporation, a holder of Series A 8% Convertible Preferred Stock may increase or decrease the Ownership Limitation Percentage to any percentage not in excess of 9.99% as specified in such notice; provided that any such increase will not be effective until the 61st day after such notice is delivered to the Corporation and any such increase or decrease will apply only to the requesting holder and not to any other holder of Series A 8% Convertible Preferred Stock.

11. Reservation of Shares. The Corporation shall reserve at all times so long as any shares of Series A 8% Convertible Preferred Stock remain outstanding, free from preemptive rights, out of its treasury stock (if applicable) or its authorized but unissued shares of Common Stock, or both, solely for the purpose of effecting the conversion of the shares of Series A 8% Convertible Preferred Stock, sufficient shares of Common Stock to provide for the conversion of all outstanding shares of Series A 8% Convertible Preferred Stock.

12. Report or Certificate as to Adjustments. In each case of any adjustment or readjustment in the shares of Common Stock (or other securities) issuable upon the conversion of shares of Series A 8% Convertible Preferred Stock, the Corporation at its expense will promptly deliver a certificate of the Chief Financial Officer showing in reasonable detail the computation of such adjustment or readjustment in accordance with the terms of this Certificate of Designation. The Corporation shall also cause independent certified public accountants of recognized national standing (which may be the regular auditors of the Corporation) selected by the Corporation to verify such computation and prepare a report setting forth such adjustment or readjustment and showing in detail the method of calculation thereof and the facts upon which such adjustment or readjustment is based. The Corporation will forthwith (and in any event not later than 30 days following the occurrence of the event requiring such adjustment) furnish a copy of each such report to each holder, and will, upon the written request at any time of a holder, furnish to such holder a like report setting forth the Conversion Price at the time in effect and showing how it was calculated. The Corporation will also keep copies of all such reports at its principal office and will cause the same to be available for inspection at such office during

normal business hours by each holder or any prospective purchaser of shares of Series A 8% Convertible Preferred Stock designated by the holder thereof.

13. Notices of Corporate Action. In the event of (i) any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution (other than the regularly-scheduled dividends described in Section 2(bb) of this Certificate of Designation), or any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right; (ii) any capital reorganization of the Corporation, any reclassification or recapitalization of the capital stock of the Corporation, any consolidation or merger involving the Corporation and any other person or any transfer of all or substantially all the assets of the Corporation to any other person; or (iii) any voluntary or involuntary dissolution, liquidation or winding-up of the Corporation; then the Corporation will deliver to each holder of the Series A 8% Convertible Preferred Stock a notice specifying (x) the date or expected date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend, distribution or right, (y) the date or expected date on which any such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place and the time, if any such time is to be fixed, as of which the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock (or other securities) for the securities or other property deliverable upon such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be furnished at least 20 days prior to the date therein specified; provided, however, if such date is prior to a public announcement relating to the events set forth and on such date the Corporation is either bound by an agreement with a third party of confidentiality with respect to the corporate action the subject of this Section 13, or the Corporation's securities are traded or quoted on any recognized national securities exchange or quotation system, then such notice shall be provided to each holder of the Series A 8% Convertible Preferred Stock simultaneously with the notice provided to the Corporation's stockholders.

14. Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of Delaware, without regard to the principles of conflict of laws thereof. Each party agrees that all legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by any of the Transaction Documents (whether brought against a party hereto or its respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the "New York Courts"). Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the

address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Certificate of Designation or the transactions contemplated hereby. If any party shall commence an action or proceeding to enforce any provisions of this Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

15. Severability of Provisions. Whenever possible, each provision hereof shall be interpreted in a manner as to be effective and valid under applicable law, but if any provision hereof is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating or otherwise adversely affecting the remaining provisions hereof. If a court of competent jurisdiction should determine that a provision hereof would be valid or enforceable if a period of time were extended or shortened or a particular percentage were increased or decreased, then such court may make such change as shall be necessary to render the provision in question effective and valid under application law.

16. No Other Rights or Preferences. The Series A 8% Convertible Preferred Stock shall have no other rights or preferences other than set forth in this Certificate of Designation.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Designation on behalf of the Corporation as of the 17th day of December, 2013.

PROVECTUS BIOPHARMACEUTICALS, INC.

By: /s/ Peter R. Culpepper
Name: Peter R. Culpepper
Title: Chief Financial Officer and
Chief Operating Officer

**BYLAWS
OF
PROVECTUS BIOPHARMACEUTICALS, INC.
(the "Corporation")**

**ARTICLE I
OFFICES**

1.1 Registered Office. The address of the registered office of this Corporation in the State of Delaware is 160 Greentree Drive, Suite 101, City of Dover, County of Kent, Zip Code 19904, and the name of the registered agent of this Corporation in the State of Delaware at such address is National Registered Agents, Inc.

1.2 Other Offices. The Corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the Corporation may require.

**ARTICLE II
CORPORATE SEAL**

2.1 Corporate Seal. The Corporation may have a corporate seal, which may be adopted or altered at the pleasure of the Board of Directors, and the Corporation may use such seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

**ARTICLE III
STOCKHOLDERS' MEETINGS**

3.1 Place of Meetings. Meetings of the stockholders of the Corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors, or, if not so designated, then at the office of the Corporation required to be maintained pursuant to Section 1.2 hereof.

3.2 Annual Meetings.

(a) The annual meeting of the stockholders of the Corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the Corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the Corporation's notice with respect to such meeting; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the Corporation who was a stockholder of record at the time of giving the stockholder's notice provided for in the following subsection (b), who is entitled to vote at the meeting and who complied with the notice procedures set forth below in this Section 3.2.

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to Section 3.2(a)(iii) above, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation, (ii) such other business must be a proper matter for stockholder action under Delaware General Corporation Law ("DGCL"), and (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the Corporation with a Solicitation Notice (as defined below in Section 3.2(d)(iii)(C)(2)),

such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the Corporation's voting shares required under applicable law or the Certificate of Incorporation or these Bylaws to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the Corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice.

(c) To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day, nor earlier than the close of business on the one hundred twentieth (120th) day, prior to the first anniversary of the date of the proxy statement delivered to stockholders in connection with the preceding year's annual meeting; provided, however, that in the event (i) the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, (ii) no proxy statement was delivered to stockholders in connection with the preceding year's annual meeting, or (iii) the Corporation did not hold an annual meeting in the preceding year, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the ninetieth (90th) day prior to such annual meeting and not later than the close of business on the later of the sixtieth (60th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above.

(d) Such stockholder's notice shall set forth:

(i) as to each person whom the stockholder proposes to nominate for election or reelection as a director, all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "1934 Act") (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected);

(ii) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and

(iii) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made:

(A) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner,

(B)(1) the class and number of shares of the Corporation which are owned beneficially and of record by such stockholder and such beneficial owner, (2) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or

with a value derived in whole or in part from the value of any class or series of shares of the Corporation, whether such instrument or right shall be subject to settlement in the underlying class or series of capital stock of the Corporation or otherwise (a "Derivative Instrument") directly or indirectly owned beneficially by such stockholder and such beneficial owner and any other direct or indirect opportunity to

profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation, (3) any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder has a right to vote any shares of any security of the Corporation, (4) any short interest in any security of the Corporation (for purposes of this Bylaw a person shall be deemed to have a short interest in a security if such person directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has the opportunity to profit or share in any profit derived from any decrease in the value of the subject security) held directly or indirectly by such stockholder and such beneficial owner, (5) any rights to dividends on the shares of the Corporation owned beneficially and of record by such stockholder and such beneficial owner that are separated or separable from the underlying shares of the Corporation, (6) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder or such beneficial owner is a general partner or, directly or indirectly, beneficially owns an interest in a general partner and (7) any performance-related fees (other than an asset-based fee) that such stockholder or such beneficial owner is entitled to based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, as of the date of such notice, in each case including without limitation any such interests held by members of such stockholder's or such beneficial owner's immediate family sharing the same household (which information shall be supplemented by such stockholder and beneficial owner, if any, not later than 10 days after the record date for the meeting to disclose such ownership as of the record date),

(C) any other information relating to such stockholder and beneficial owner, if any, that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Section 14 of the 1934 Act and the rules and regulations promulgated thereunder,

(1) a description of all arrangements or understandings between the stockholder or beneficial owner and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are to be made by such stockholder, and

(2) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the Corporation's voting shares required under applicable law or the Certificate of Incorporation or these Bylaws to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the Corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "Solicitation Notice").

(e) Notwithstanding anything in Section 3.2(c) of these Bylaws (as the same may be amended and/or restated from time to time, the "Bylaws") to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the Corporation at least seventy (70) days prior to the first anniversary of the preceding year's annual meeting (or, if the annual meeting is held more than thirty (30) days before or thirty (30) days after such anniversary date, at least seventy (70) days prior to such annual meeting) a stockholder's notice required by this Section 3.2 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.

(f) Only such persons who are nominated in accordance with the procedures set forth in this Section 3.2 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth

in this Section 3.2. Except as otherwise provided by law, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(g) Notwithstanding the foregoing provisions of this Section 3.2, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(h) For purposes of these Bylaws, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press, PR Newswire, Reuters or comparable national news service or in a document publicly filed by the Corporation with the U.S. Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act.

3.3 Special Meetings.

(a) Special meetings of the stockholders of the Corporation may be called, for any purpose or purposes, only by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the directors then in office.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by certified or registered mail, return receipt requested, to the Secretary of the Corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the Secretary shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 3.4 of these Bylaws. Nothing contained in this subsection (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who is a stockholder of record at the time of giving notice provided for in these Bylaws who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 3.3(c). In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice otherwise required by Section 3.2 of these Bylaws shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the one hundred twentieth (120th) day prior to such special meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment of a special meeting commence a new time period for the giving of a stockholder's notice as described above.

(d) Unless the Corporation's Certificate of Incorporation (as the same may be amended and/or restated from time to time, the "Certificate of Incorporation") provides otherwise, any special meeting of the stockholders may be cancelled by resolution duly adopted by a majority of the directors then in office upon public notice given prior to the date previously scheduled for such meeting of stockholders.

3.4 Notice Of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, date and hour of the meeting, the means of remote communication(s), if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting (as authorized by the Board of Directors in its sole discretion pursuant to Section 211(a)(2) of the DGCL), and, in the case of a special meeting, the purpose or purposes of the meeting. Notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation and otherwise is given when delivered. Notice of the time, place, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given. Neither the business to be transacted at, nor the purpose of, any annual or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission.

3.5 Quorum. At all meetings of stockholders, except where otherwise provided by statute, the Certificate of Incorporation or these Bylaws, the presence, in person or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by law or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of shares present in person or represented by proxy at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by law, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of votes cast at the meeting shall be the act of such class or classes or series.

3.6 Adjournment And Notice Of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person or represented by proxy at the meeting. When a meeting is adjourned to another time or place, notice need not be given of the adjourned meeting if the

time and place thereof, and the means of remote communication(s), if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting (as authorized by the Board of Directors in its sole discretion pursuant to Section 211(a)(2) of the DGCL), are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

3.7 Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the Corporation on the record date, as provided in Section 7.4 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote shall have the right to do so either in person or by an agent or agents authorized by a proxy granted in accordance with the DGCL. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period.

3.8 Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in Section 217(b) of the DGCL. If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of clauses (b) and (c) shall be a majority or even-split in interest.

3.9 List of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Nothing contained in this Section 3.9 shall require the Corporation to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the Corporation. In the event the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

3.10 No Action Without Meeting. Any action required to be taken at any annual or special meeting of stockholders of the Corporation, or any action which may be taken at any annual or special meeting of such stockholders, may not be taken without a meeting.

3.11 Organization.

(a) At every meeting of stockholders, (i) the Chairman of the Board of Directors or, if a Chairman of the Board of Directors has not been appointed or is absent, (ii) the Chief Executive Officer or, if the Chief Executive Officer is absent, (iii) the President or, if the President is absent, (iv) such

person as the Chairman of the Board of Directors shall appoint or, if such Chairman has not been appointed, (v) any officer of the Corporation chosen by the Board of Directors, shall act as chairman of the meeting. The Secretary, or, in his absence, such person appointed by the chairman of the meeting, shall act as secretary of the meeting.

(b) The Board of Directors shall, in advance of any meeting of stockholders, appoint one (1) or more inspector(s), who may include individual(s) who serve the Corporation in other capacities, including without limitation as officers, employees or agents, to act at the meeting of stockholders and make a written report thereof. The Board of Directors may designate one (1) or more persons as alternate inspector(s) to replace any inspector who fails to act. If no inspector or alternate has been appointed or is able to act at a meeting of stockholders, the chairman of the meeting shall appoint one (1) or more inspector(s) to act at the meeting. Each inspector, before discharging his duties, shall take and sign an oath to faithfully execute the duties of inspector with strict impartiality and according to the best of his ability. The inspector(s) or alternate(s) shall have the duties prescribed pursuant to Section 231 of the DGCL or other applicable law.

(c) The Board of Directors of the Corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the Corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV DIRECTORS

4.1 Number and Term of Office. The Board of Directors shall consist of one or more members, the number thereof to be determined from time to time by resolution of the Board of Directors. Directors need not be stockholders unless so required by the Certificate of Incorporation.

4.2 Powers. The powers of the Corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

4.3 Classes of Directors.

(a) Directors need not be stockholders unless so required by the Certificate of Incorporation. The Certificate of Incorporation or these Bylaws may prescribe other qualifications for directors.

(b) Notwithstanding the foregoing provisions of this section, each director shall serve until his successor is duly elected and qualified or until his earlier death, resignation, disqualification or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

4.4 Vacancies. Unless otherwise provided in the Certificate of Incorporation and subject to the rights of the holders of any series of preferred stock then outstanding, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even if less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Section 4.4 in the case of the death, removal, disqualification or resignation of any director.

4.5 Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. When one or more directors shall resign from the Board of Directors effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office for the unexpired portion of the term of the director whose place shall be vacated and until his successor shall have been duly elected and qualified.

4.6 Removal. Subject to the rights of the holders of any series of preferred stock then outstanding, any one or more or all of the directors may be removed from the Board of Directors, but only for cause and only by the affirmative vote of the holders of at least a majority of the voting power of all then outstanding shares of capital stock of the Corporation then entitled to vote in the election of directors, voting together as a single class. For purposes of this Article IV, "cause" shall mean, with respect to any director, (i) the willful failure by such director to perform, or the gross negligence of such director in performing, the duties of a director, (ii) the engaging by such director in willful or serious misconduct that is injurious to the Corporation or (iii) the conviction of such director of, or the entering by such director of a plea of nolo contendere to, a crime that constitutes a felony.

4.7 Meetings.

(a) Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board of Directors, the Chief Executive Officer, or a majority of the directors then in office.

(c) Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment pursuant to which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of the time and place of all special meetings of the Board of Directors shall be given to each director (i) by giving notice to such director in person or by telephone, including a voice messaging system or other system designed to record and communicate messages, during normal business hours, at least twenty-four (24) hours before the meeting, (ii) by sending a telegram or delivering notice by facsimile transmission, by electronic mail or by hand, to such director at his last known business or home address, during normal business hours, at least twenty-four (24) hours before the meeting, or (iii) by mailing notice, via first class United States mail, to such director at his last known business or home address at least three (3) days in advance of the meeting. Notice of any meeting may be waived in writing, or by electronic transmission, at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Notice of a special meeting of the Board of Directors need not specify the purpose of the meeting.

(e) The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in any written waiver of notice or any waiver by electronic transmission.

4.8 Quorum And Voting.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the directors then in office. In the event one or more directors shall be disqualified to vote at any meeting, then the required quorum shall be reduced by one for each such director so disqualified; provided, however, that in no case shall less than one-third ($\frac{1}{3}$) of the total number of directors constitute a quorum. At any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

4.9 Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing

or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

4.10 Fees And Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, or any committee thereof, including, if so approved by resolution of the Board of Directors or such committee, a fixed sum and expenses of

attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

4.11 Committees.

(a) The Board of Directors may, from time to time, appoint such committees as may be permitted by law. Such committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but no committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any provision of these Bylaws.

(b) The Board of Directors, subject to any requirements of any outstanding series of preferred stock and the provisions of subsections (a) and (b) of this Section 4.11, may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(c) Unless the Board of Directors shall otherwise provide, regular meetings of any committee appointed pursuant to this Section 4.11 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

4.12 Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman of the Board of Directors has not been appointed or is absent, the Chief Executive Officer (if a director), or if the Chief Executive Officer is absent, the President (if a director), or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, such person appointed by the chairman of the meeting, shall act as secretary of the meeting.

ARTICLE V OFFICERS

5.1 Officers Designated. The officers of the Corporation shall include, if and when designated by the Board of Directors, the Chairman of the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer and the Treasurer, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the Corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the Corporation shall be fixed by or in the manner designated by the Board of Directors or a committee thereof.

5.2 Tenure And Duties Of Officers

(a) All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors, subject to the rights, if any, of an officer under contract of employment. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) The Chairman of the Board of Directors, if such an officer be elected, shall, if present, preside at meetings of the Board of Directors and stockholders and exercise and perform such other powers and duties as may from time to time be assigned to him by the Board of Directors or as may be prescribed by these Bylaws. If there is no Chief Executive Officer or President, then the Chairman of the Board of Directors shall also be the Chief Executive Officer of the Corporation and as such shall also have the powers and duties prescribed in Section 5.2(c) below.

(c) Subject to such supervisory powers, if any, as the Board of Directors may give to the Chairman of the Board of Directors, the Chief Executive Officer, if any, shall, subject to the control of the Board of Directors, have general supervision, direction, and control of the business and affairs of the Corporation and shall report directly to the Board of Directors. All other officers, officials, employees and agents shall report directly or indirectly to the Chief Executive Officer. The Chief Executive Officer shall see that all orders and resolutions of the Board of Directors are carried into effect. In the absence of a Chairman of the Board of Directors, the Chief Executive Officer shall preside at all meetings of the Board of Directors.

(d) In the absence or disability of the Chief Executive Officer, the President shall perform all the duties of the Chief Executive Officer. When acting as the Chief Executive Officer, the President shall have all the powers of, and be subject to all the restrictions upon, the Chief Executive Officer. The President shall have such other powers and perform such other duties as from time to time may be prescribed for him by the Board of Directors, these Bylaws, the Chief Executive Officer or the Chairman of the Board of Directors.

(e) In the absence or disability of the President, the Vice President(s), if any, in order of their rank as fixed by the Board of Directors or, if not ranked, a Vice President designated by the Board of Directors, shall perform all the duties of the President and, when so acting, shall have all the powers of, and be subject to all the restrictions upon, the President. The Vice President(s) shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the Board of Directors, these Bylaws, the Chairman of the Board of Directors, the Chief Executive Officer or, in the absence of a Chief Executive Officer, the President.

(f) The Secretary shall keep or cause to be kept, at the principal executive office of the Corporation, or such other place as the Board of Directors may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The Secretary shall keep, or cause to be kept, at the principal executive office of the Corporation or at the office of the Corporation's transfer agent or registrar, as determined by resolution of the Board of Directors, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The Secretary shall give, or cause to be given, notice of all meetings of the stockholders, the Board of Directors and any committee(s) of the Board of Directors, required to be given by law or by these Bylaws. The Secretary shall keep the seal of the Corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or by these Bylaws.

(g) The Chief Financial Officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital and retained earnings.

The Chief Financial Officer shall deposit all money and other valuables in the name and to the credit of the Corporation with such depositaries as may be designated by the Board of Directors or Chief Executive Officer. The Chief Financial Officer shall disburse the funds of the Corporation as may be ordered by the Board of Directors, shall render to the Board of Directors and Chief Executive Officer, or in the absence of a Chief Executive Officer, the President, whenever they request, an account of all of his transactions as Chief Financial Officer and of the financial condition of the Corporation, and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or these Bylaws. In lieu of any contrary resolution duly adopted by the Board of Directors, the Chief Financial Officer shall also be the Treasurer of the Corporation.

(h) The Assistant Secretary(ies), if any, in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the Secretary or in the event of his inability or refusal to act, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

(i) The Assistant Treasurer(s), if any, in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election), shall, in the absence of the Chief Financial Officer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the Chief Financial Officer and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

5.3 Delegation Of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

5.4 Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission to the Board of Directors or to the Chief Executive Officer or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the Corporation under any contract with the resigning officer.

5.5 Removal. Subject to the rights, if any, of an officer under contract of employment, any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

6.1 Execution Of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the Corporation any corporate instrument or document, or to sign on behalf of the Corporation the corporate name without limitation, or to enter into contracts on behalf of the Corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the Corporation.

All checks and drafts drawn on banks or other depositaries on funds to the credit of the Corporation or in special accounts of the Corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

6.2 Voting Of Securities Owned By The Corporation. All stock and other securities of other Corporations owned or held by the Corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

7.1 Form And Execution Of Certificates. Shares of stock of the Corporation shall be represented by certificates, or shall be uncertificated. Certificates for the shares of stock of the Corporation, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by certificate shall be entitled to have a certificate signed by or in the name of the Corporation by the Chairman of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the Corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

7.2 Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the Corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The Corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the Corporation in such manner as it shall require or to give the Corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

7.3 Transfers.

(a) Transfers of record of shares of stock of the Corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

7.4 Fixing Record Dates.

(a) In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

7.5 Registered Stockholders. The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by applicable law.

**ARTICLE VIII
OTHER SECURITIES OF THE CORPORATION**

8.1 Execution Of Other Securities. All bonds, debentures and other corporate securities of the Corporation, other than stock certificates (covered in Section 7.1), may be signed by the Chairman of the Board of Directors, the Chief Executive Officer, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal, if any, may be impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; provided, however, that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and, if applicable, attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the Corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the Corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the Corporation.

**ARTICLE IX
DIVIDENDS**

9.1 Declaration Of Dividends. Dividends upon the capital stock of the Corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

9.2 Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the Corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

**ARTICLE X
FISCAL YEAR**

10.1 Fiscal Year. The fiscal year of the Corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI
INDEMNIFICATION AND ADVANCEMENT OF EXPENSES

11.1 Right To Indemnification. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a "Covered Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding"), by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director, officer, employee or agent of the Corporation or, while a director, officer, employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except as otherwise provided in Section 11.3, the Corporation shall not be required to indemnify a Covered Person in connection with a Proceeding (or part thereof) commenced by such Covered Person unless the commencement of such Proceeding (or part thereof) by the Covered Person was authorized in the specific case by the Board of Directors.

11.2 Pre-Payment of Expenses. The Corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any Proceeding in advance of its final disposition, provided, however, that, to the extent required by law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article XI or otherwise.

11.3 Claims. If a claim for indemnification (following the final disposition of the Proceeding with respect to which indemnification is sought, including any settlement of such Proceeding) or advancement of expenses under this Article XI is not paid in full within thirty days after a written claim therefor by the Covered Person has been received by the Corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim to the fullest extent permitted by applicable law. In any such action the Corporation shall have the burden of proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under this Article XI and applicable law.

11.4 Non-Exclusivity Of Rights. The rights conferred on any Covered Person by this Article XI shall not be exclusive of any other rights which such Covered Person may have or hereafter acquire under any statute, any other provision of the Certificate of Incorporation, these Bylaws, or any agreement, vote of stockholders or disinterested directors or otherwise.

11.5 Insurance. The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such liability under this Article XI, the DGCL or otherwise.

11.6 Amendment or Repeal. Any right to indemnification or to advancement of expenses of any Covered Person arising hereunder shall not be eliminated or impaired by an amendment to or repeal of this Article XI after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought.

11.7 Saving Clause. If this Article XI or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each director, officer, employee and agent to the fullest extent not prohibited by any applicable portion of this Article XI that shall not have been invalidated, or by any other applicable law. If this Article XI shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the Corporation shall indemnify each director, officer, employee and agent to the fullest extent under any other applicable law.

ARTICLE XII NOTICES

12.1 Notices.

(a) Written notice to stockholders of stockholder meetings shall be given as provided in Section 3.4 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by United States mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice to directors of special meetings shall be given as provided in Section 4.7(d) herein. Subject to the preceding sentence and except as expressly stated otherwise herein, notice may otherwise be given by the methods stated in subsection (a) above.

(c) An affidavit of mailing, executed by a duly authorized and competent employee of the Corporation or its transfer agent appointed with respect to the class of stock affected, or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more recipients, and any other permissible method or methods may be employed in respect of any other or others.

(e) Whenever notice is required to be given, under any provision of the DGCL, the Certificate of Incorporation or these Bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event the action taken by the Corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) Whenever notice is required to be given, under any provision of the DGCL, the Certificate of Incorporation or these Bylaws, to any stockholder to whom (i) notice of two (2) consecutive annual meetings, or (ii) all, and at least two (2), payments (if sent by first-class mail) of dividends or interest on securities during a twelve (12) month period, have been mailed addressed to such person at such person's address as shown on the records of the Corporation and have been returned undeliverable, the giving of such notice to such person shall not be required. Any actions or meeting which shall be taken or held without notice to such person shall have the same force and effect as if such notice had been

duly given. If any such person shall deliver to the Corporation a written notice setting forth such person's then current address, the requirement that notice be given to such person shall be reinstated. In the event that the action taken by the Corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate need not state that the Corporation did not give notice to persons not required to be given notice pursuant to Section 230(b) of the DGCL. The exception in clause (i) above to the requirement that notice be given shall not be applicable to any notice returned as undeliverable if the notice was given by electronic transmission.

(g) Except as otherwise prohibited under the DGCL, any notice given under the provisions of the DGCL, the Certificate of Incorporation or these Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall be deemed to have been given if such stockholder fails to object in writing to the Corporation within 60 days of having been given notice by the Corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the Corporation.

(h) Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the Corporation under any provision of the DGCL, the Certificate of Incorporation or these Bylaws shall be effective if given by a form of electronic transmission previously consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if (i) the Corporation is unable to deliver by electronic transmission two (2) consecutive notices given by the Corporation in accordance with such consent, and (ii) such inability becomes known to the Secretary or an Assistant Secretary of the Corporation, the transfer agent or other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Notice given pursuant to the above paragraph shall be deemed given (i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice, (ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice, (iii) if by a posting on an electronic network together with a separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice, and (iv) if by any other form of electronic transmission, when directed to the stockholder. An affidavit of the Secretary or Assistant Secretary, the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall in the absence of fraud, be prima facie evidence of the facts stated therein.

For purposes of these Bylaws, "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process. This Section 12.1 shall not apply to Section 164 (failure to pay for stock; remedies), Section 296 (adjudication of claims; appeal), Section 311 (revocation of voluntary dissolution), Section 312 (renewal, revival, extension and restoration of certificate of incorporation) or Section 324 (attachment of shares of stock) of the DGCL.

ARTICLE XIII AMENDMENTS

13.1 Amendments. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the Corporation. Any adoption, amendment or repeal of the Bylaws of the Corporation by the Board of Directors shall require the approval of a majority of the directors then in office. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Corporation;

provided, however, that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by the Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of the Bylaws of the Corporation.

ARTICLE XIV RECORDS AND REPORTS

14.1 Maintenance And Inspection Of Records.

(a) The Corporation shall, either at its principal executive office or at such place or places as designated by the Board of Directors, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these Bylaws, minute books, accounting books and other records. Any such records maintained by the Corporation may be kept on, or by means of, or be in the form of, any information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect such records pursuant to the provisions of the DGCL. When records are kept in such manner, a clearly legible paper form produced from or by means of the information storage device or method shall be admissible in evidence, and accepted for all other purposes, to the same extent as an original paper form accurately portrays the record.

(b) Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal place of business.

14.2 Inspection By Directors. Any director shall have the right to examine the Corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The court may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

ARTICLE XV CONSTRUCTION

15.1 Construction. Unless the context requires otherwise, the general provisions, rules of construction and definitions in the DGCL shall govern the construction of these Bylaws. The singular number includes the plural, and the plural number includes the singular. All pronouns used in these Bylaws shall be deemed to refer to the masculine, feminine and/or neuter, as the identity of the person or persons so designated may require.

Adopted as of December 16, 2013.

EXECUTIVE EMPLOYMENT AGREEMENT

THIS AGREEMENT made as of this 1st day of July 2013 by and between **PROVECTUS PHARMACEUTICALS, INC.**, a Nevada Corporation with its principal place of business in Knoxville, Tennessee (the "Company"), and **H. Craig Dees, Ph.D.** (the "Executive").

WITNESSETH:

WHEREAS, the Company recognizes the value of the Executive's background and experience and desires to employ the Executive as CEO of the Company; and

WHEREAS, the Executive wishes to be employed by the Company in such capacity; and

WHEREAS, the Company and the Executive mutually desire that their employment relationship be set forth under the terms of a written employment agreement;

NOW, THEREFORE, in consideration of the foregoing and of the promises and mutual agreements set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby agree as follows:

1. Employment. The Company agrees to employ the Executive, and the Executive agrees to be employed by the Company, on the terms and conditions set forth herein.
2. Term of Employment. The employment of the Executive by the Company as provided under Section 1 shall commence on July 1, 2013, and end on June 30, 2014 unless further extended or sooner terminated as hereinafter provided. On July 1, 2014 and on July 1st of each year thereafter, the term of the Executive's employment hereunder shall be extended automatically one (1) additional year, unless prior to the date of such automatic extension the Company shall have delivered to the Executive or the Executive shall have delivered to the Company written notice that the term of the Executive's employment hereunder shall not be extended.
3. Position and Duties. The Executive shall serve as CEO of the Company with responsibilities and authority as may from time to time be assigned by the Chief Executive Officer and/or the Board of Directors of the Company. Executive agrees to perform faithfully and industriously the duties which the Company may assign to him.
4. Place of Performance. In connection with the Executive's employment hereunder, the Executive shall be based at the Company's principal offices located in Knoxville, Tennessee.
5. Compensation and Benefits. In consideration of the Executive's performance of his duties hereunder, the Company shall provide the Executive with the following compensation and benefits during the term of his employment hereunder.
 - (a) Base Salary. The Company shall pay to the Executive an aggregate base salary at a rate of Five Hundred Thousand Dollars (\$500,000) per annum, payable in accordance with the Company's normal payroll practices. Such base salary may be increased from time to time by the Board of Directors in accordance with the normal business practices of the Company.

Compensation of the Executive by the base salary payments shall not be deemed exclusive and shall not prevent the Executive from participating in any other compensation or benefit program of the Company. Such base salary payments (including increases thereto) shall not in any way limit or reduce any other obligation of the Company hereunder, and no other compensation, benefit or payment hereunder shall in any limit or reduce the obligation of the Company with respect to such base salary.

- (b) Incentive Compensation. The Executive shall have the right to participate in any incentive compensation plan or bonus plan adopted by the Company without diminution of any compensation or benefit provided for in this Agreement.
- (c) Expenses. The Company, as applicable, shall promptly reimburse the Executive for all reasonable out-of-pocket expenses incurred by the Executive in his performance of services hereunder, including all such expenses of travel and living expense while away from home on business of the Company, provided that such expenses are incurred, accounted for and documented in accordance with the Company's regular policies and in compliance with IRS Guidelines.
- (d) Employee Benefits. The Executive shall be entitled to continue to participate in all Company employee benefit plans and arrangements for which he is eligible in effect on the date hereof in which the Executive participates (including, but not limited to, any employee benefit pension plan, stock option plan, life insurance plan, vacation plan, disability plan, and the group health-and-accident and medical insurance plans) as such plans may continue or be altered by the Company Board of Directors from time to time at the Board's discretion.
- (e) Vacation. The Executive shall be entitled to reasonable and customary vacation in each calendar year during the term of this Agreement, in accordance with the Company's present policies.
- (f) Services. The Company shall furnish the Executive with office space, secretarial and administrative assistance, and such other facilities and services as shall be suitable to his position and adequate for the performance of his duties hereunder.

6. Termination: This Agreement shall terminate upon the first to occur of the following:

- (a) The death of Executive;
- (b) The permanent disability of Executive, as defined in Paragraph 7(a)(vi);
- (c) Termination by Company "for cause" as defined in Paragraph 7(a)(i);
- (d) Termination by Company "without cause" or pursuant to a "Change in Control" as defined in Paragraph 7(a)(ii). The Company reserves the right to terminate the Executive at any time, subject to the Company's obligation to pay the Executive Compensation as otherwise provided for herein; or

- (e) Termination by Executive, provided that Executive shall give not less than thirty (30) days' written notice of termination.
 - (f) A significant reduction in executive duties or his reporting responsibilities to the Board of Directors shall be deemed a termination
7. Compensation and Benefits in the Event of Termination or Acquisition of the Company In the event of the termination of the Executive's employment by the Company during the term of this Agreement, compensation and benefits shall be paid as set forth below.
- (a) Definitions. For purposes of this Agreement, the following terms shall have the meanings indicated:
 - (i) As used in Paragraph 6(c), termination "for cause" shall include, but shall not be limited to, termination for Executive's use of illegal non-prescription drugs or drug or alcohol addiction; conviction of a felony; intentional breach of this Agreement by Executive; or willful negligence in carrying out the activities for which employed. "For cause" is not intended to include disagreements over management philosophy or other such intangibles.
 - (ii) "Change in Control" shall mean either:
 - (A) A sale or other disposition of substantially all of the assets of Company or a sale or disposition of a majority of the issued and outstanding common stock of Company in a single transaction or in a series of transactions to a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction; or
 - (B) A merger or consolidation of the Company with or into any other entity, if immediately after giving effect to such transaction more than fifty percent (50%) of the issued and outstanding common stock of the surviving entity of such transaction is held by a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction.
 - (C) for purposes of this sub-paragraph (ii), the definition of "person" shall be as defined in Section 13(d) and 14(d) of the Securities Exchange Act of 1934.
 - (iii) "Compensation" shall mean the base salary provided for in Paragraph 5(a) hereof.

- (iv) "Coincident with" shall mean any time within nine months prior to the occurrence of a Change in Control of the Company.
 - (v) "Date of Termination" shall mean (A) if the Executive's employment is terminated by reason of his death, his date of death; (B) if the Executive's employment is terminated for Disability, thirty (30) days after Notice of Termination is given (provided that the Executive shall not have returned to the performance of his duties as provided under subparagraph (vi) of this paragraph (a)); or (C) if the Executive's employment is terminated by action of either party for any other reason, the date specified in the Notice of Termination.
 - (vi) "Disability" shall mean the Executive's failure to satisfactorily perform his regular duties on behalf of the Company on a full-time basis for ninety (90) consecutive days or such lesser period of time as provided under the disability insurance policy provided through Company, by reason of the Executive's incapacity due to physical or mental illness, except where within thirty (30) days after Notice of Termination is given following such absence, the Executive shall have returned to the satisfactory, full-time performance of such duties. Any determination of Disability hereunder shall be made by the Board of Directors in good faith and on the basis of the certificates of a majority of at least three (3) qualified physicians chosen by it for such purpose, one (1) of whom shall be the Executive's regular attending physician.
 - (vii) "Notice of Termination" shall mean a written notice which shall include the specific termination provision under this Agreement relied upon, and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment. Any purported termination of the Executive's employment hereunder by action of either party shall be communicated by delivery of a Notice of Termination to the other party. Any purported termination of the Executive's employment hereunder which is not effected in accordance with the foregoing shall be ineffective for purposes of this Agreement.
 - (viii) "Retirement" shall mean termination of the Executive's employment pursuant to the Company's regular retirement policy applicable to the position held by the Executive at the time of such termination.
- (b) Termination or Failure to Extend by Company Not for Cause Prior to a Change of Control In the event the Executive's employment hereunder is terminated by action of the Company without cause prior to, but not coincident with, a Change of Control, or this Agreement is not extended by the Company without cause prior to, but not coincident with, a Change in Control, the Executive shall be entitled to receive payments under this Agreement as though the Agreement was in effect through the end of the period set forth in Paragraph 2 hereof, including any automatic extensions in effect as of the date of such termination. Any such

payments due shall be paid on a monthly basis, subject to withholding and FICA and other applicable adjustments, in accordance with the normal payroll practices of the Company. Executive acknowledges that such payments serve as total satisfaction of Executive's claims under this Agreement.

- (c) Termination By the Company at any time For Cause or by the Executive Prior to a Change in Control In the event the Executive's employment hereunder is terminated (A) by action of the Company for Cause either before, coincident with, or after a Change in Control; (B) by action of the Executive prior to, but not coincident with, a Change in Control; or (C) by reason of the Executive's death, disability or retirement prior to a Change in Control, the following compensation and benefits shall be paid and provided the Executive (or his beneficiary):
- (1) The Executive's base salary provided under Paragraph 5(a) through the last day of the month in which the Date of Termination occurs, at the annual rate in effect at the time Notice of Termination is given (or death occurs), to the extent unpaid prior to such Date of Termination;
 - (2) The pro rata portion of any incentive or bonus payment under Paragraph 5(b) which has been earned prior to the Date of Termination, to the extent unpaid prior to such date;
 - (3) Any benefits to which the Executive (or his beneficiary) may be entitled as a result of such termination (or death), under the terms and conditions of the pertinent plans or arrangements in effect at the time of the Notice of Termination under Paragraph 5(d); and
 - (4) Any amounts due the Executive with respect to paragraph (c) of Section 5 as of the Date of Termination.
- (d) Termination by Company Not For Cause Coincident With or Following a Change in Control or by Executive Coincident With or Following a Change in Control. In the event that coincident with or following a Change in Control, the Executive's employment hereunder is terminated or this Agreement is not extended (A) by action of the Executive coincident with or following a Change in Control including the Executive's death, disability or retirement, or (B) by action of the Company not for cause coincident with or following a Change in Control, the Company shall pay and provide the Executive, subject to Company regulatory limitations, the compensation and benefits stipulated under sub-paragraph (c) immediately above; provided, however, in addition thereto, the following compensation and benefits shall be paid and provided the Executive:
- The Company shall pay to the Executive in a lump sum, in cash, within 30 days following the Date of Termination or on the effective date of the Change in Control, whichever occurs later, an amount equal to 2.90 times the Compensation paid in the preceding calendar year, or scheduled to be paid to the Executive during the year of the Notice of Termination, whichever is greater, plus an additional amount sufficient to pay United States income tax on the lump sum amount so paid.

- (e) Continuation of Benefits. Following the termination of Executive's employment hereunder, the Executive shall have the right to continue in the Company's group health insurance plan or other Company benefit program as may be required by COBRA or any other federal or state law or regulation.
- (f) Compensation During Disability. In the event of the Executive's failure to satisfactorily perform his duties hereunder on a full-time basis by reason of his incapacity due to physical or mental illness for any period not otherwise constituting Disability as defined under sub-paragraph (vi) of Paragraph 7(a) hereof, the Executive's employment hereunder shall not be deemed terminated and he shall continue to receive the compensation and benefits provided under Paragraph 5 in accordance with the terms thereof.
8. Withholding. Any provision of this Agreement to the contrary notwithstanding, all payments made by the Company hereunder to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts, if any, relating to tax and other payroll deductions as the Company may reasonably determine should be withheld pursuant to any applicable law or regulation. In lieu of withholding such amounts, the Company may accept other provisions, provided that it has sufficient funds to pay all taxes required by law to be withheld in respect of any or all such payments.
9. Notices. All notices, requests, demands and other communications provided for by this Agreement shall be in writing and shall be sufficiently given if and when mailed in the continental United States by registered or certified mail, or personally delivered to the party entitled thereto, at the address stated below or to such changed address as the addressee may have given by a similar notice:
- To the Company: President
 Provectus Pharmaceuticals, Inc.
 7327 Oak Ridge Highway, Suite A
 Knoxville, TN 37931
- To the Executive: H. Craig Dees, Ph.D.
 C/o Provectus Pharmaceuticals, Inc.
 7327 Oak Ridge Highway
 Knoxville, Tennessee 37931
10. Successors: Binding Agreement. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, by agreement in the form and substance satisfactory to the Executive, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. Failure of the Company to obtain such agreement prior to the effectiveness of any such succession shall be a breach of this

Agreement. For purposes of this Agreement, "Company" shall include any successor to its business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law.

This Agreement shall inure to the benefit of and be enforceable by the Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If the Executive should die while any amount would still be payable to him hereunder if he had continued to live, all such amounts, except to the extent otherwise provided under this Agreement, shall be paid in accordance with the terms of this Agreement to his devisee, legatee or other designee, or if there be no such designee, to the Executive's estate.

11. Modification, Waiver or Discharge. No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by the Executive and an authorized officer of the Company. No waiver by either party hereto at anytime of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof had been made by either party which are not expressly set forth in this Agreement; provided, however, that this Agreement shall not supersede or in any way limit the right, duties or obligations that the Executive or the Company may have under any other written agreement between such parties, under any employee pension benefit plan or employee welfare benefit plan as defined under the Employee Retirement Income Security Act of 1974, as amended, and maintained by the Company, or under any established personnel practice or policy applicable to the Executive.
12. Governing Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Tennessee to the extent federal law does not apply.
13. Validity. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of the other provisions of this Agreement, which latter provisions shall remain in full force and effect.
14. Miscellaneous.
 - (a) No Adequate Remedy At Law: Costs to Prevailing Party. The Company and the Executive recognize that each party may have no adequate remedy at law for breach by the other of any of the agreements contained herein, and, in the event of any such breach, the Company and the Executive hereby agree and consent that the other shall be entitled to injunctive relief or other appropriate remedy to enforce performance of such agreements. In the event of a breach of this Agreement, then the prevailing party in any litigation instituted to enforce such breach shall have the right to recover from the losing party its costs related thereto, including legal fees, court costs, and any other reasonable expenses incurred.

(b) Non-Assignability. No right, benefit, or interest hereunder shall be subject to anticipation, alienation, sale, assignment, encumbrance, charge, pledge, hypothecation, or setoff in respect of any claim, debt or obligation, or to execution, attachment, levy or similar process, or assignment by operation of law. Any attempt, voluntary or involuntary, to effect any action specified in the immediately preceding sentence shall, to the full extent permitted by law, be null, void and of no effect. Any of the foregoing to the contrary notwithstanding, this provision shall not preclude the Executive from designating one or more beneficiaries to receive any amount that may be payable after his death, and shall not preclude the legal representative of the Executive's estate from assigning any right hereunder to the person or persons entitled thereto under his will or, in the case of intestacy, applicable to his estate.

15. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the Executive and the Company (by action of its duly authorized officers) have executed this Agreement as of the date first above written.

PROVECTUS PHAMACEUTICALS, INC.

By: /s/ Timothy C. Scott
Timothy C. Scott, Ph.D., President

Attest: /s/ Peter R. Culpepper

EXECUTIVE:

/s/ H. Craig Dees
H. Craig Dees, Ph.D., CEO

EXECUTIVE EMPLOYMENT AGREEMENT

THIS AGREEMENT made as of this 1st day of July 2013 by and between **PROVECTUS PHARMACEUTICALS, INC.**, a Nevada Corporation with its principal place of business in Knoxville, Tennessee (the "Company"), and **Eric A. Wachter, Ph.D.** (the "Executive").

WITNESSETH:

WHEREAS, the Company recognizes the value of the Executive's background and experience and desires to employ the Executive as Chief Technology Officer of the Company; and

WHEREAS, the Executive wishes to be employed by the Company in such capacity; and

WHEREAS, the Company and the Executive mutually desire that their employment relationship be set forth under the terms of a written employment agreement;

NOW, THEREFORE, in consideration of the foregoing and of the promises and mutual agreements set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby agree as follows:

1. Employment. The Company agrees to employ the Executive, and the Executive agrees to be employed by the Company, on the terms and conditions set forth herein.
2. Term of Employment. The employment of the Executive by the Company as provided under Section 1 shall commence on July 1, 2013, and end on June 30, 2014 unless further extended or sooner terminated as hereinafter provided. On July 1, 2014 and on July 1st of each year thereafter, the term of the Executive's employment hereunder shall be extended automatically one (1) additional year, unless prior to the date of such automatic extension the Company shall have delivered to the Executive or the Executive shall have delivered to the Company written notice that the term of the Executive's employment hereunder shall not be extended.
3. Position and Duties. The Executive shall serve as Executive Vice President of the Company with responsibilities and authority as may from time to time be assigned by the Chief Executive Officer and/or the Board of Directors of the Company. Executive agrees to perform faithfully and industriously the duties which the Company may assign to him.
4. Place of Performance. In connection with the Executive's employment hereunder, the Executive shall be based at the Company's principal offices located in Knoxville, Tennessee.
5. Compensation and Benefits. In consideration of the Executive's performance of his duties hereunder, the Company shall provide the Executive with the following compensation and benefits during the term of his employment hereunder.
 - (a) Base Salary. The Company shall pay to the Executive an aggregate base salary at a rate of Five Hundred Thousand Dollars (\$500,000) per annum, payable in accordance with the Company's normal payroll practices. Such base salary may be increased from time to time by the Board of Directors in accordance with the normal business practices of the Company.

Compensation of the Executive by the base salary payments shall not be deemed exclusive and shall not prevent the Executive from participating in any other compensation or benefit program of the Company. Such base salary payments (including increases thereto) shall not in any way limit or reduce any other obligation of the Company hereunder, and no other compensation, benefit or payment hereunder shall in any limit or reduce the obligation of the Company with respect to such base salary.

- (b) Incentive Compensation. The Executive shall have the right to participate in any incentive compensation plan or bonus plan adopted by the Company without diminution of any compensation or benefit provided for in this Agreement.
- (c) Expenses. The Company, as applicable, shall promptly reimburse the Executive for all reasonable out-of-pocket expenses incurred by the Executive in his performance of services hereunder, including all such expenses of travel and living expense while away from home on business of the Company, provided that such expenses are incurred, accounted for and documented in accordance with the Company's regular policies and in compliance with IRS Guidelines.
- (d) Employee Benefits. The Executive shall be entitled to continue to participate in all Company employee benefit plans and arrangements for which he is eligible in effect on the date hereof in which the Executive participates (including, but not limited to, any employee benefit pension plan, stock option plan, life insurance plan, vacation plan, disability plan, and the group health-and-accident and medical insurance plans) as such plans may continue or be altered by the Company Board of Directors from time to time at the Board's discretion.
- (e) Vacation. The Executive shall be entitled to reasonable and customary vacation in each calendar year during the term of this Agreement, in accordance with the Company's present policies.
- (f) Services. The Company shall furnish the Executive with office space, secretarial and administrative assistance, and such other facilities and services as shall be suitable to his position and adequate for the performance of his duties hereunder.

6. Termination: This Agreement shall terminate upon the first to occur of the following:

- (a) The death of Executive;
- (b) The permanent disability of Executive, as defined in Paragraph 7(a)(vi);
- (c) Termination by Company "for cause" as defined in Paragraph 7(a)(i);
- (d) Termination by Company "without cause" or pursuant to a "Change in Control" as defined in Paragraph 7(a)(ii). The Company reserves the right to terminate the Executive at any time, subject to the Company's obligation to pay the Executive Compensation as otherwise provided for herein; or

- (e) Termination by Executive, provided that Executive shall give not less than thirty (30) days' written notice of termination.
 - (f) A significant reduction in executive duties or his reporting responsibilities to the Board of Directors shall be deemed a termination
7. Compensation and Benefits in the Event of Termination or Acquisition of the Company In the event of the termination of the Executive's employment by the Company during the term of this Agreement, compensation and benefits shall be paid as set forth below.
- (a) Definitions. For purposes of this Agreement, the following terms shall have the meanings indicated:
 - (i) As used in Paragraph 6(c), termination "for cause" shall include, but shall not be limited to, termination for Executive's use of illegal non-prescription drugs or drug or alcohol addiction; conviction of a felony; intentional breach of this Agreement by Executive; or willful negligence in carrying out the activities for which employed. "For cause" is not intended to include disagreements over management philosophy or other such intangibles.
 - (ii) "Change in Control" shall mean either:
 - (A) A sale or other disposition of substantially all of the assets of Company or a sale or disposition of a majority of the issued and outstanding common stock of Company in a single transaction or in a series of transactions to a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction; or
 - (B) A merger or consolidation of the Company with or into any other entity, if immediately after giving effect to such transaction more than fifty percent (50%) of the issued and outstanding common stock of the surviving entity of such transaction is held by a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction.
 - (C) for purposes of this sub-paragraph (ii), the definition of "person" shall be as defined in Section 13(d) and 14(d) of the Securities Exchange Act of 1934.
 - (iii) "Compensation" shall mean the base salary provided for in Paragraph 5(a) hereof.

- (iv) "Coincident with" shall mean any time within nine months prior to the occurrence of a Change in Control of the Company.
 - (v) "Date of Termination" shall mean (A) if the Executive's employment is terminated by reason of his death, his date of death; (B) if the Executive's employment is terminated for Disability, thirty (30) days after Notice of Termination is given (provided that the Executive shall not have returned to the performance of his duties as provided under subparagraph (vi) of this paragraph (a)); or (C) if the Executive's employment is terminated by action of either party for any other reason, the date specified in the Notice of Termination.
 - (vi) "Disability" shall mean the Executive's failure to satisfactorily perform his regular duties on behalf of the Company on a full-time basis for ninety (90) consecutive days or such lesser period of time as provided under the disability insurance policy provided through Company, by reason of the Executive's incapacity due to physical or mental illness, except where within thirty (30) days after Notice of Termination is given following such absence, the Executive shall have returned to the satisfactory, full-time performance of such duties. Any determination of Disability hereunder shall be made by the Board of Directors in good faith and on the basis of the certificates of a majority of at least three (3) qualified physicians chosen by it for such purpose, one (1) of whom shall be the Executive's regular attending physician.
 - (vii) "Notice of Termination" shall mean a written notice which shall include the specific termination provision under this Agreement relied upon, and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment. Any purported termination of the Executive's employment hereunder by action of either party shall be communicated by delivery of a Notice of Termination to the other party. Any purported termination of the Executive's employment hereunder which is not effected in accordance with the foregoing shall be ineffective for purposes of this Agreement.
 - (viii) "Retirement" shall mean termination of the Executive's employment pursuant to the Company's regular retirement policy applicable to the position held by the Executive at the time of such termination.
- (b) Termination or Failure to Extend by Company Not for Cause Prior to a Change of Control In the event the Executive's employment hereunder is terminated by action of the Company without cause prior to, but not coincident with, a Change of Control, or this Agreement is not extended by the Company without cause prior to, but not coincident with, a Change in Control, the Executive shall be entitled to receive payments under this Agreement as though the Agreement was in effect through the end of the period set forth in Paragraph 2 hereof, including any automatic extensions in effect as of the date of such termination. Any such

payments due shall be paid on a monthly basis, subject to withholding and FICA and other applicable adjustments, in accordance with the normal payroll practices of the Company. Executive acknowledges that such payments serve as total satisfaction of Executive's claims under this Agreement.

- (c) Termination By the Company at any time For Cause or by the Executive Prior to a Change in Control In the event the Executive's employment hereunder is terminated (A) by action of the Company for Cause either before, coincident with, or after a Change in Control; (B) by action of the Executive prior to, but not coincident with, a Change in Control; or (C) by reason of the Executive's death, disability or retirement prior to a Change in Control, the following compensation and benefits shall be paid and provided the Executive (or his beneficiary):
- (1) The Executive's base salary provided under Paragraph 5(a) through the last day of the month in which the Date of Termination occurs, at the annual rate in effect at the time Notice of Termination is given (or death occurs), to the extent unpaid prior to such Date of Termination;
 - (2) The pro rata portion of any incentive or bonus payment under Paragraph 5(b) which has been earned prior to the Date of Termination, to the extent unpaid prior to such date;
 - (3) Any benefits to which the Executive (or his beneficiary) may be entitled as a result of such termination (or death), under the terms and conditions of the pertinent plans or arrangements in effect at the time of the Notice of Termination under Paragraph 5(d); and
 - (4) Any amounts due the Executive with respect to paragraph (c) of Section 5 as of the Date of Termination.
- (d) Termination by Company Not For Cause Coincident With or Following a Change in Control or by Executive Coincident With or Following a Change in Control. In the event that coincident with or following a Change in Control, the Executive's employment hereunder is terminated or this Agreement is not extended (A) by action of the Executive coincident with or following a Change in Control including the Executive's death, disability or retirement, or (B) by action of the Company not for cause coincident with or following a Change in Control, the Company shall pay and provide the Executive, subject to Company regulatory limitations, the compensation and benefits stipulated under sub-paragraph (c) immediately above; provided, however, in addition thereto, the following compensation and benefits shall be paid and provided the Executive:
- The Company shall pay to the Executive in a lump sum, in cash, within 30 days following the Date of Termination or on the effective date of the Change in Control, whichever occurs later, an amount equal to 2.90 times the Compensation paid in the preceding calendar year, or scheduled to be paid to the Executive during the year of the Notice of Termination, whichever is greater, plus an additional amount sufficient to pay United States income tax on the lump sum amount so paid.

- (e) Continuation of Benefits. Following the termination of Executive's employment hereunder, the Executive shall have the right to continue in the Company's group health insurance plan or other Company benefit program as may be required by COBRA or any other federal or state law or regulation.
- (f) Compensation During Disability. In the event of the Executive's failure to satisfactorily perform his duties hereunder on a full-time basis by reason of his incapacity due to physical or mental illness for any period not otherwise constituting Disability as defined under sub-paragraph (vi) of Paragraph 7(a) hereof, the Executive's employment hereunder shall not be deemed terminated and he shall continue to receive the compensation and benefits provided under Paragraph 5 in accordance with the terms thereof.
8. Withholding. Any provision of this Agreement to the contrary notwithstanding, all payments made by the Company hereunder to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts, if any, relating to tax and other payroll deductions as the Company may reasonably determine should be withheld pursuant to any applicable law or regulation. In lieu of withholding such amounts, the Company may accept other provisions, provided that it has sufficient funds to pay all taxes required by law to be withheld in respect of any or all such payments.
9. Notices. All notices, requests, demands and other communications provided for by this Agreement shall be in writing and shall be sufficiently given if and when mailed in the continental United States by registered or certified mail, or personally delivered to the party entitled thereto, at the address stated below or to such changed address as the addressee may have given by a similar notice:
- To the Company: President
 Provectus Pharmaceuticals, Inc.
 7327 Oak Ridge Highway, Suite A
 Knoxville, TN 37931
- To the Executive: Eric A. Wachter, Ph.D.
 C/o Provectus Pharmaceuticals, Inc.
 7327 Oak Ridge Highway
 Knoxville, Tennessee 37931
10. Successors: Binding Agreement. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, by agreement in the form and substance satisfactory to the Executive, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. Failure of the Company to obtain such agreement prior to the effectiveness of any such succession shall be a breach of this

Agreement. For purposes of this Agreement, "Company" shall include any successor to its business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law.

This Agreement shall inure to the benefit of and be enforceable by the Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If the Executive should die while any amount would still be payable to him hereunder if he had continued to live, all such amounts, except to the extent otherwise provided under this Agreement, shall be paid in accordance with the terms of this Agreement to his devisee, legatee or other designee, or if there be no such designee, to the Executive's estate.

11. Modification, Waiver or Discharge. No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by the Executive and an authorized officer of the Company. No waiver by either party hereto at anytime of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof had been made by either party which are not expressly set forth in this Agreement; provided, however, that this Agreement shall not supersede or in any way limit the right, duties or obligations that the Executive or the Company may have under any other written agreement between such parties, under any employee pension benefit plan or employee welfare benefit plan as defined under the Employee Retirement Income Security Act of 1974, as amended, and maintained by the Company, or under any established personnel practice or policy applicable to the Executive.
12. Governing Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Tennessee to the extent federal law does not apply.
13. Validity. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of the other provisions of this Agreement, which latter provisions shall remain in full force and effect.
14. Miscellaneous.
 - (a) No Adequate Remedy At Law: Costs to Prevailing Party. The Company and the Executive recognize that each party may have no adequate remedy at law for breach by the other of any of the agreements contained herein, and, in the event of any such breach, the Company and the Executive hereby agree and consent that the other shall be entitled to injunctive relief or other appropriate remedy to enforce performance of such agreements. In the event of a breach of this Agreement, then the prevailing party in any litigation instituted to enforce such breach shall have the right to recover from the losing party its costs related thereto, including legal fees, court costs, and any other reasonable expenses incurred.

(b) Non-Assignability. No right, benefit, or interest hereunder shall be subject to anticipation, alienation, sale, assignment, encumbrance, charge, pledge, hypothecation, or setoff in respect of any claim, debt or obligation, or to execution, attachment, levy or similar process, or assignment by operation of law. Any attempt, voluntary or involuntary, to effect any action specified in the immediately preceding sentence shall, to the full extent permitted by law, be null, void and of no effect. Any of the foregoing to the contrary notwithstanding, this provision shall not preclude the Executive from designating one or more beneficiaries to receive any amount that may be payable after his death, and shall not preclude the legal representative of the Executive's estate from assigning any right hereunder to the person or persons entitled thereto under his will or, in the case of intestacy, applicable to his estate.

15. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the Executive and the Company (by action of its duly authorized officers) have executed this Agreement as of the date first above written.

PROVECTUS PHAMACEUTICALS, INC.

By: /s/ Timothy C. Scott

Timothy C. Scott, Ph.D., President

Attest: /s/ Peter R. Culpepper

EXECUTIVE:

/s/ Eric A. Wachter

Eric A. Wachter, Ph.D., Executive Vice President

EXECUTIVE EMPLOYMENT AGREEMENT

THIS AGREEMENT made as of this 1st day of July 2013 by and between **PROVECTUS PHARMACEUTICALS, INC.**, a Nevada Corporation with its principal place of business in Knoxville, Tennessee (the "Company"), and **Timothy C. Scott, Ph.D.** (the "Executive").

WITNESSETH:

WHEREAS, the Company recognizes the value of the Executive's background and experience and desires to employ the Executive as President of the Company; and

WHEREAS, the Executive wishes to be employed by the Company in such capacity; and

WHEREAS, the Company and the Executive mutually desire that their employment relationship be set forth under the terms of a written employment agreement;

NOW, THEREFORE, in consideration of the foregoing and of the promises and mutual agreements set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby agree as follows:

1. Employment. The Company agrees to employ the Executive, and the Executive agrees to be employed by the Company, on the terms and conditions set forth herein.
2. Term of Employment. The employment of the Executive by the Company as provided under Section 1 shall commence on July 1, 2013, and end on June 30, 2014 unless further extended or sooner terminated as hereinafter provided. On July 1, 2014 and on July 1st of each year thereafter, the term of the Executive's employment hereunder shall be extended automatically one (1) additional year, unless prior to the date of such automatic extension the Company shall have delivered to the Executive or the Executive shall have delivered to the Company written notice that the term of the Executive's employment hereunder shall not be extended.
3. Position and Duties. The Executive shall serve as President of the Company with responsibilities and authority as may from time to time be assigned by the Chief Executive Officer and/or the Board of Directors of the Company. Executive agrees to perform faithfully and industriously the duties which the Company may assign to him.
4. Place of Performance. In connection with the Executive's employment hereunder, the Executive shall be based at the Company's principal offices located in Knoxville, Tennessee.
5. Compensation and Benefits. In consideration of the Executive's performance of his duties hereunder, the Company shall provide the Executive with the following compensation and benefits during the term of his employment hereunder.
 - (a) Base Salary. The Company shall pay to the Executive an aggregate base salary at a rate of Five Hundred Thousand Dollars (\$500,000) per annum, payable in accordance with the Company's normal payroll practices. Such base salary may be increased from time to time by the Board of Directors in accordance with the normal business practices of the Company.

Compensation of the Executive by the base salary payments shall not be deemed exclusive and shall not prevent the Executive from participating in any other compensation or benefit program of the Company. Such base salary payments (including increases thereto) shall not in any way limit or reduce any other obligation of the Company hereunder, and no other compensation, benefit or payment hereunder shall in any limit or reduce the obligation of the Company with respect to such base salary.

- (b) Incentive Compensation. The Executive shall have the right to participate in any incentive compensation plan or bonus plan adopted by the Company without diminution of any compensation or benefit provided for in this Agreement.
- (c) Expenses. The Company, as applicable, shall promptly reimburse the Executive for all reasonable out-of-pocket expenses incurred by the Executive in his performance of services hereunder, including all such expenses of travel and living expense while away from home on business of the Company, provided that such expenses are incurred, accounted for and documented in accordance with the Company's regular policies and in compliance with IRS Guidelines.
- (d) Employee Benefits. The Executive shall be entitled to continue to participate in all Company employee benefit plans and arrangements for which he is eligible in effect on the date hereof in which the Executive participates (including, but not limited to, any employee benefit pension plan, stock option plan, life insurance plan, vacation plan, disability plan, and the group health-and-accident and medical insurance plans) as such plans may continue or be altered by the Company Board of Directors from time to time at the Board's discretion.
- (e) Vacation. The Executive shall be entitled to reasonable and customary vacation in each calendar year during the term of this Agreement, in accordance with the Company's present policies.
- (f) Services. The Company shall furnish the Executive with office space, secretarial and administrative assistance, and such other facilities and services as shall be suitable to his position and adequate for the performance of his duties hereunder.

6. Termination: This Agreement shall terminate upon the first to occur of the following:

- (a) The death of Executive;
- (b) The permanent disability of Executive, as defined in Paragraph 7(a)(vi);
- (c) Termination by Company "for cause" as defined in Paragraph 7(a)(i);
- (d) Termination by Company "without cause" or pursuant to a "Change in Control" as defined in Paragraph 7(a)(ii). The Company reserves the right to terminate the Executive at any time, subject to the Company's obligation to pay the Executive Compensation as otherwise provided for herein; or

- (e) Termination by Executive, provided that Executive shall give not less than thirty (30) days' written notice of termination.
 - (f) A significant reduction in executive duties or his reporting responsibilities to the Board of Directors shall be deemed a termination
7. Compensation and Benefits in the Event of Termination or Acquisition of the Company In the event of the termination of the Executive's employment by the Company during the term of this Agreement, compensation and benefits shall be paid as set forth below.
- (a) Definitions. For purposes of this Agreement, the following terms shall have the meanings indicated:
 - (i) As used in Paragraph 6(c), termination "for cause" shall include, but shall not be limited to, termination for Executive's use of illegal non-prescription drugs or drug or alcohol addiction; conviction of a felony; intentional breach of this Agreement by Executive; or willful negligence in carrying out the activities for which employed. "For cause" is not intended to include disagreements over management philosophy or other such intangibles.
 - (ii) "Change in Control" shall mean either:
 - (A) A sale or other disposition of substantially all of the assets of Company or a sale or disposition of a majority of the issued and outstanding common stock of Company in a single transaction or in a series of transactions to a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction; or
 - (B) A merger or consolidation of the Company with or into any other entity, if immediately after giving effect to such transaction more than fifty percent (50%) of the issued and outstanding common stock of the surviving entity of such transaction is held by a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction.
 - (C) for purposes of this sub-paragraph (ii), the definition of "person" shall be as defined in Section 13(d) and 14(d) of the Securities Exchange Act of 1934.
 - (iii) "Compensation" shall mean the base salary provided for in Paragraph 5(a) hereof.

- (iv) "Coincident with" shall mean any time within nine months prior to the occurrence of a Change in Control of the Company.
 - (v) "Date of Termination" shall mean (A) if the Executive's employment is terminated by reason of his death, his date of death; (B) if the Executive's employment is terminated for Disability, thirty (30) days after Notice of Termination is given (provided that the Executive shall not have returned to the performance of his duties as provided under subparagraph (vi) of this paragraph (a)); or (C) if the Executive's employment is terminated by action of either party for any other reason, the date specified in the Notice of Termination.
 - (vi) "Disability" shall mean the Executive's failure to satisfactorily perform his regular duties on behalf of the Company on a full-time basis for ninety (90) consecutive days or such lesser period of time as provided under the disability insurance policy provided through Company, by reason of the Executive's incapacity due to physical or mental illness, except where within thirty (30) days after Notice of Termination is given following such absence, the Executive shall have returned to the satisfactory, full-time performance of such duties. Any determination of Disability hereunder shall be made by the Board of Directors in good faith and on the basis of the certificates of a majority of at least three (3) qualified physicians chosen by it for such purpose, one (1) of whom shall be the Executive's regular attending physician.
 - (vii) "Notice of Termination" shall mean a written notice which shall include the specific termination provision under this Agreement relied upon, and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment. Any purported termination of the Executive's employment hereunder by action of either party shall be communicated by delivery of a Notice of Termination to the other party. Any purported termination of the Executive's employment hereunder which is not effected in accordance with the foregoing shall be ineffective for purposes of this Agreement.
 - (viii) "Retirement" shall mean termination of the Executive's employment pursuant to the Company's regular retirement policy applicable to the position held by the Executive at the time of such termination.
- (b) Termination or Failure to Extend by Company Not for Cause Prior to a Change of Control In the event the Executive's employment hereunder is terminated by action of the Company without cause prior to, but not coincident with, a Change of Control, or this Agreement is not extended by the Company without cause prior to, but not coincident with, a Change in Control, the Executive shall be entitled to receive payments under this Agreement as though the Agreement was in effect through the end of the period set forth in Paragraph 2 hereof, including any automatic extensions in effect as of the date of such termination. Any such

payments due shall be paid on a monthly basis, subject to withholding and FICA and other applicable adjustments, in accordance with the normal payroll practices of the Company. Executive acknowledges that such payments serve as total satisfaction of Executive's claims under this Agreement.

- (c) Termination By the Company at any time For Cause or by the Executive Prior to a Change in Control In the event the Executive's employment hereunder is terminated (A) by action of the Company for Cause either before, coincident with, or after a Change in Control; (B) by action of the Executive prior to, but not coincident with, a Change in Control; or (C) by reason of the Executive's death, disability or retirement prior to a Change in Control, the following compensation and benefits shall be paid and provided the Executive (or his beneficiary):
- (1) The Executive's base salary provided under Paragraph 5(a) through the last day of the month in which the Date of Termination occurs, at the annual rate in effect at the time Notice of Termination is given (or death occurs), to the extent unpaid prior to such Date of Termination;
 - (2) The pro rata portion of any incentive or bonus payment under Paragraph 5(b) which has been earned prior to the Date of Termination, to the extent unpaid prior to such date;
 - (3) Any benefits to which the Executive (or his beneficiary) may be entitled as a result of such termination (or death), under the terms and conditions of the pertinent plans or arrangements in effect at the time of the Notice of Termination under Paragraph 5(d); and
 - (4) Any amounts due the Executive with respect to paragraph (c) of Section 5 as of the Date of Termination.
- (d) Termination by Company Not For Cause Coincident With or Following a Change in Control or by Executive Coincident With or Following a Change in Control. In the event that coincident with or following a Change in Control, the Executive's employment hereunder is terminated or this Agreement is not extended (A) by action of the Executive coincident with or following a Change in Control including the Executive's death, disability or retirement, or (B) by action of the Company not for cause coincident with or following a Change in Control, the Company shall pay and provide the Executive, subject to Company regulatory limitations, the compensation and benefits stipulated under sub-paragraph (c) immediately above; provided, however, in addition thereto, the following compensation and benefits shall be paid and provided the Executive:
- The Company shall pay to the Executive in a lump sum, in cash, within 30 days following the Date of Termination or on the effective date of the Change in Control, whichever occurs later, an amount equal to 2.90 times the Compensation paid in the preceding calendar year, or scheduled to be paid to the Executive during the year of the Notice of Termination, whichever is greater, plus an additional amount sufficient to pay United States income tax on the lump sum amount so paid.

- (e) Continuation of Benefits. Following the termination of Executive's employment hereunder, the Executive shall have the right to continue in the Company's group health insurance plan or other Company benefit program as may be required by COBRA or any other federal or state law or regulation.
- (f) Compensation During Disability. In the event of the Executive's failure to satisfactorily perform his duties hereunder on a full-time basis by reason of his incapacity due to physical or mental illness for any period not otherwise constituting Disability as defined under sub-paragraph (vi) of Paragraph 7(a) hereof, the Executive's employment hereunder shall not be deemed terminated and he shall continue to receive the compensation and benefits provided under Paragraph 5 in accordance with the terms thereof.
8. Withholding. Any provision of this Agreement to the contrary notwithstanding, all payments made by the Company hereunder to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts, if any, relating to tax and other payroll deductions as the Company may reasonably determine should be withheld pursuant to any applicable law or regulation. In lieu of withholding such amounts, the Company may accept other provisions, provided that it has sufficient funds to pay all taxes required by law to be withheld in respect of any or all such payments.
9. Notices. All notices, requests, demands and other communications provided for by this Agreement shall be in writing and shall be sufficiently given if and when mailed in the continental United States by registered or certified mail, or personally delivered to the party entitled thereto, at the address stated below or to such changed address as the addressee may have given by a similar notice:
- To the Company: President
 Provectus Pharmaceuticals, Inc.
 7327 Oak Ridge Highway, Suite A
 Knoxville, TN 37931
- To the Executive: Timothy C. Scott, Ph.D.
 C/o Provectus Pharmaceuticals, Inc.
 7327 Oak Ridge Highway
 Knoxville, Tennessee 37931
10. Successors: Binding Agreement. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, by agreement in the form and substance satisfactory to the Executive, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. Failure of the Company to obtain such agreement prior to the effectiveness of any such succession shall be a breach of this

Agreement. For purposes of this Agreement, "Company" shall include any successor to its business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law.

This Agreement shall inure to the benefit of and be enforceable by the Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If the Executive should die while any amount would still be payable to him hereunder if he had continued to live, all such amounts, except to the extent otherwise provided under this Agreement, shall be paid in accordance with the terms of this Agreement to his devisee, legatee or other designee, or if there be no such designee, to the Executive's estate.

11. Modification, Waiver or Discharge. No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by the Executive and an authorized officer of the Company. No waiver by either party hereto at anytime of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof had been made by either party which are not expressly set forth in this Agreement; provided, however, that this Agreement shall not supersede or in any way limit the right, duties or obligations that the Executive or the Company may have under any other written agreement between such parties, under any employee pension benefit plan or employee welfare benefit plan as defined under the Employee Retirement Income Security Act of 1974, as amended, and maintained by the Company, or under any established personnel practice or policy applicable to the Executive.
12. Governing Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Tennessee to the extent federal law does not apply.
13. Validity. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of the other provisions of this Agreement, which latter provisions shall remain in full force and effect.
14. Miscellaneous.
 - (a) No Adequate Remedy At Law: Costs to Prevailing Party. The Company and the Executive recognize that each party may have no adequate remedy at law for breach by the other of any of the agreements contained herein, and, in the event of any such breach, the Company and the Executive hereby agree and consent that the other shall be entitled to injunctive relief or other appropriate remedy to enforce performance of such agreements. In the event of a breach of this Agreement, then the prevailing party in any litigation instituted to enforce such breach shall have the right to recover from the losing party its costs related thereto, including legal fees, court costs, and any other reasonable expenses incurred.

(b) Non-Assignability. No right, benefit, or interest hereunder shall be subject to anticipation, alienation, sale, assignment, encumbrance, charge, pledge, hypothecation, or setoff in respect of any claim, debt or obligation, or to execution, attachment, levy or similar process, or assignment by operation of law. Any attempt, voluntary or involuntary, to effect any action specified in the immediately preceding sentence shall, to the full extent permitted by law, be null, void and of no effect. Any of the foregoing to the contrary notwithstanding, this provision shall not preclude the Executive from designating one or more beneficiaries to receive any amount that may be payable after his death, and shall not preclude the legal representative of the Executive's estate from assigning any right hereunder to the person or persons entitled thereto under his will or, in the case of intestacy, applicable to his estate.

15. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the Executive and the Company (by action of its duly authorized officers) have executed this Agreement as of the date first above written.

PROVECTUS PHAMACEUTICALS, INC.

By: /s/ H. Craig Dees

H. Craig Dees, Ph.D., CEO

Attest: /s/ Peter R. Culpepper

EXECUTIVE:

/s/ Timothy C. Scott

Timothy C. Scott, Ph.D., President

EXECUTIVE EMPLOYMENT AGREEMENT

THIS AGREEMENT made as of this 1st day of July 2013 by and between **PROVECTUS PHARMACEUTICALS, INC.**, a Nevada Corporation with its principal place of business in Knoxville, Tennessee (the "Company"), and **Peter R. Culpepper, CPA, MBA** (the "Executive").

WITNESSETH:

WHEREAS, the Company recognizes the value of the Executive's background and experience and desires to employ the Executive as CFO and COO of the Company; and

WHEREAS, the Executive wishes to be employed by the Company in such capacity; and

WHEREAS, the Company and the Executive mutually desire that their employment relationship be set forth under the terms of a written employment agreement;

NOW, THEREFORE, in consideration of the foregoing and of the promises and mutual agreements set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby agree as follows:

1. Employment. The Company agrees to employ the Executive, and the Executive agrees to be employed by the Company, on the terms and conditions set forth herein.
2. Term of Employment. The employment of the Executive by the Company as provided under Section 1 shall commence on July 1, 2013, and end on June 30, 2014 unless further extended or sooner terminated as hereinafter provided. On July 1, 2014 and on July 1st of each year thereafter, the term of the Executive's employment hereunder shall be extended automatically one (1) additional year, unless prior to the date of such automatic extension the Company shall have delivered to the Executive or the Executive shall have delivered to the Company written notice that the term of the Executive's employment hereunder shall not be extended.
3. Position and Duties. The Executive shall serve as CFO and COO of the Company with responsibilities and authority as may from time to time be assigned by the Chief Executive Officer and/or the Board of Directors of the Company. Executive agrees to perform faithfully and industriously the duties which the Company may assign to him.
4. Place of Performance. In connection with the Executive's employment hereunder, the Executive shall be based at the Company's principal offices located in Knoxville, Tennessee.
5. Compensation and Benefits. In consideration of the Executive's performance of his duties hereunder, the Company shall provide the Executive with the following compensation and benefits during the term of his employment hereunder.
 - (a) Base Salary. The Company shall pay to the Executive an aggregate base salary at a rate of Five Hundred Thousand Dollars (\$500,000) per annum, payable in

accordance with the Company's normal payroll practices. Such base salary may be increased from time to time by the Board of Directors in accordance with the normal business practices of the Company.

Compensation of the Executive by the base salary payments shall not be deemed exclusive and shall not prevent the Executive from participating in any other compensation or benefit program of the Company. Such base salary payments (including increases thereto) shall not in any way limit or reduce any other obligation of the Company hereunder, and no other compensation, benefit or payment hereunder shall in any limit or reduce the obligation of the Company with respect to such base salary.

- (b) Incentive Compensation. The Executive shall have the right to participate in any incentive compensation plan or bonus plan adopted by the Company without diminution of any compensation or benefit provided for in this Agreement.
- (c) Expenses. The Company, as applicable, shall promptly reimburse the Executive for all reasonable out-of-pocket expenses incurred by the Executive in his performance of services hereunder, including all such expenses of travel and living expense while away from home on business of the Company, provided that such expenses are incurred, accounted for and documented in accordance with the Company's regular policies and in compliance with IRS Guidelines.
- (d) Employee Benefits. The Executive shall be entitled to continue to participate in all Company employee benefit plans and arrangements for which he is eligible in effect on the date hereof in which the Executive participates (including, but not limited to, any employee benefit pension plan, stock option plan, life insurance plan, vacation plan, disability plan, and the group health-and-accident and medical insurance plans) as such plans may continue or be altered by the Company Board of Directors from time to time at the Board's discretion.
- (e) Vacation. The Executive shall be entitled to reasonable and customary vacation in each calendar year during the term of this Agreement, in accordance with the Company's present policies.
- (f) Services. The Company shall furnish the Executive with office space, secretarial and administrative assistance, and such other facilities and services as shall be suitable to his position and adequate for the performance of his duties hereunder.

6. Termination: This Agreement shall terminate upon the first to occur of the following:

- (a) The death of Executive;
- (b) The permanent disability of Executive, as defined in Paragraph 7(a)(vi);
- (c) Termination by Company "for cause" as defined in Paragraph 7(a)(i);

- (d) Termination by Company “without cause” or pursuant to a “Change in Control” as defined in Paragraph 7(a)(ii). The Company reserves the right to terminate the Executive at any time, subject to the Company’s obligation to pay the Executive Compensation as otherwise provided for herein; or
 - (e) Termination by Executive, provided that Executive shall give not less than thirty (30) days’ written notice of termination.
 - (f) A significant reduction in executive duties or his reporting responsibilities to the Board of Directors shall be deemed a termination
7. Compensation and Benefits in the Event of Termination or Acquisition of the Company In the event of the termination of the Executive’s employment by the Company during the term of this Agreement, compensation and benefits shall be paid as set forth below.
- (a) Definitions. For purposes of this Agreement, the following terms shall have the meanings indicated:
 - (i) As used in Paragraph 6(c), termination “for cause” shall include, but shall not be limited to, termination for Executive’s use of illegal non-prescription drugs or drug or alcohol addiction; conviction of a felony; intentional breach of this Agreement by Executive; or willful negligence in carrying out the activities for which employed. “For cause” is not intended to include disagreements over management philosophy or other such intangibles.
 - (ii) “Change in Control” shall mean either:
 - (A) A sale or other disposition of substantially all of the assets of Company or a sale or disposition of a majority of the issued and outstanding common stock of Company in a single transaction or in a series of transactions to a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction; or
 - (B) A merger or consolidation of the Company with or into any other entity, if immediately after giving effect to such transaction more than fifty percent (50%) of the issued and outstanding common stock of the surviving entity of such transaction is held by a single person or entity or group of affiliated persons or entities who were not directors or shareholders of the Company prior to such transaction.
 - (C) for purposes of this sub-paragraph (ii), the definition of “person” shall be as defined in Section 13(d) and 14(d) of the Securities Exchange Act of 1934.

- (iii) "Compensation" shall mean the base salary provided for in Paragraph 5(a) hereof.
- (iv) "Coincident with" shall mean any time within nine months prior to the occurrence of a Change in Control of the Company.
- (v) "Date of Termination" shall mean (A) if the Executive's employment is terminated by reason of his death, his date of death; (B) if the Executive's employment is terminated for Disability, thirty (30) days after Notice of Termination is given (provided that the Executive shall not have returned to the performance of his duties as provided under subparagraph (vi) of this paragraph (a)); or (C) if the Executive's employment is terminated by action of either party for any other reason, the date specified in the Notice of Termination.
- (vi) "Disability" shall mean the Executive's failure to satisfactorily perform his regular duties on behalf of the Company on a full-time basis for ninety (90) consecutive days or such lesser period of time as provided under the disability insurance policy provided through Company, by reason of the Executive's incapacity due to physical or mental illness, except where within thirty (30) days after Notice of Termination is given following such absence, the Executive shall have returned to the satisfactory, full-time performance of such duties. Any determination of Disability hereunder shall be made by the Board of Directors in good faith and on the basis of the certificates of a majority of at least three (3) qualified physicians chosen by it for such purpose, one (1) of whom shall be the Executive's regular attending physician.
- (vii) "Notice of Termination" shall mean a written notice which shall include the specific termination provision under this Agreement relied upon, and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment. Any purported termination of the Executive's employment hereunder by action of either party shall be communicated by delivery of a Notice of Termination to the other party. Any purported termination of the Executive's employment hereunder which is not effected in accordance with the foregoing shall be ineffective for purposes of this Agreement.
- (viii) "Retirement" shall mean termination of the Executive's employment pursuant to the Company's regular retirement policy applicable to the position held by the Executive at the time of such termination.
- (b) Termination or Failure to Extend by Company Not for Cause Prior to a Change of Control In the event the Executive's employment hereunder is terminated by action of the Company without cause prior to, but not coincident with, a Change of Control, or this Agreement is not extended by the Company without cause prior to, but not coincident with, a Change in Control, the Executive shall be entitled to

receive payments under this Agreement as though the Agreement was in effect through the end of the period set forth in Paragraph 2 hereof, including any automatic extensions in effect as of the date of such termination. Any such payments due shall be paid on a monthly basis, subject to withholding and FICA and other applicable adjustments, in accordance with the normal payroll practices of the Company. Executive acknowledges that such payments serve as total satisfaction of Executive's claims under this Agreement.

- (c) Termination By the Company at any time For Cause or by the Executive Prior to a Change in Control In the event the Executive's employment hereunder is terminated (A) by action of the Company for Cause either before, coincident with, or after a Change in Control; (B) by action of the Executive prior to, but not coincident with, a Change in Control; or (C) by reason of the Executive's death, disability or retirement prior to a Change in Control, the following compensation and benefits shall be paid and provided the Executive (or his beneficiary):
- (1) The Executive's base salary provided under Paragraph 5(a) through the last day of the month in which the Date of Termination occurs, at the annual rate in effect at the time Notice of Termination is given (or death occurs), to the extent unpaid prior to such Date of Termination;
 - (2) The pro rata portion of any incentive or bonus payment under Paragraph 5(b) which has been earned prior to the Date of Termination, to the extent unpaid prior to such date;
 - (3) Any benefits to which the Executive (or his beneficiary) may be entitled as a result of such termination (or death), under the terms and conditions of the pertinent plans or arrangements in effect at the time of the Notice of Termination under Paragraph 5(d); and
 - (4) Any amounts due the Executive with respect to paragraph (c) of Section 5 as of the Date of Termination.
- (d) Termination by Company Not For Cause Coincident With or Following a Change in Control or by Executive Coincident With or Following a Change in Control. In the event that coincident with or following a Change in Control, the Executive's employment hereunder is terminated or this Agreement is not extended (A) by action of the Executive coincident with or following a Change in Control including the Executive's death, disability or retirement, or (B) by action of the Company not for cause coincident with or following a Change in Control, the Company shall pay and provide the Executive, subject to Company regulatory limitations, the compensation and benefits stipulated under sub-paragraph (c) immediately above; provided, however, in addition thereto, the following compensation and benefits shall be paid and provided the Executive:
- The Company shall pay to the Executive in a lump sum, in cash, within 30 days following the Date of Termination or on the effective date of the

Change in Control, whichever occurs later, an amount equal to 2.90 times the Compensation paid in the preceding calendar year, or scheduled to be paid to the Executive during the year of the Notice of Termination, whichever is greater, plus an additional amount sufficient to pay United States income tax on the lump sum amount so paid.

- (e) Continuation of Benefits. Following the termination of Executive's employment hereunder, the Executive shall have the right to continue in the Company's group health insurance plan or other Company benefit program as may be required by COBRA or any other federal or state law or regulation.
- (f) Compensation During Disability. In the event of the Executive's failure to satisfactorily perform his duties hereunder on a full-time basis by reason of his incapacity due to physical or mental illness for any period not otherwise constituting Disability as defined under sub-paragraph (vi) of Paragraph 7(a) hereof, the Executive's employment hereunder shall not be deemed terminated and he shall continue to receive the compensation and benefits provided under Paragraph 5 in accordance with the terms thereof.

- 8. Withholding. Any provision of this Agreement to the contrary notwithstanding, all payments made by the Company hereunder to the Executive or his estate or beneficiaries shall be subject to the withholding of such amounts, if any, relating to tax and other payroll deductions as the Company may reasonably determine should be withheld pursuant to any applicable law or regulation. In lieu of withholding such amounts, the Company may accept other provisions, provided that it has sufficient funds to pay all taxes required by law to be withheld in respect of any or all such payments.
- 9. Notices. All notices, requests, demands and other communications provided for by this Agreement shall be in writing and shall be sufficiently given if and when mailed in the continental United States by registered or certified mail, or personally delivered to the party entitled thereto, at the address stated below or to such changed address as the addressee may have given by a similar notice:

To the Company: President
Provectus Pharmaceuticals, Inc.
7327 Oak Ridge Highway, Suite A
Knoxville, TN 37931

To the Executive: Peter R. Culpepper, CPA, MBA
C/o Provectus Pharmaceuticals, Inc.
7327 Oak Ridge Highway
Knoxville, Tennessee 37931

- 10. Successors: Binding Agreement. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, by agreement in the form and substance satisfactory to the Executive, to expressly assume and agree to perform this Agreement in

the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place. Failure of the Company to obtain such agreement prior to the effectiveness of any such succession shall be a breach of this Agreement. For purposes of this Agreement, "Company" shall include any successor to its business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law.

This Agreement shall inure to the benefit of and be enforceable by the Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If the Executive should die while any amount would still be payable to him hereunder if he had continued to live, all such amounts, except to the extent otherwise provided under this Agreement, shall be paid in accordance with the terms of this Agreement to his devisee, legatee or other designee, or if there be no such designee, to the Executive's estate.

11. Modification, Waiver or Discharge. No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by the Executive and an authorized officer of the Company. No waiver by either party hereto at anytime of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof had been made by either party which are not expressly set forth in this Agreement; provided, however, that this Agreement shall not supersede or in any way limit the right, duties or obligations that the Executive or the Company may have under any other written agreement between such parties, under any employee pension benefit plan or employee welfare benefit plan as defined under the Employee Retirement Income Security Act of 1974, as amended, and maintained by the Company, or under any established personnel practice or policy applicable to the Executive.
12. Governing Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Tennessee to the extent federal law does not apply.
13. Validity. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of the other provisions of this Agreement, which latter provisions shall remain in full force and effect.
14. Miscellaneous.
 - (a) No Adequate Remedy At Law; Costs to Prevailing Party. The Company and the Executive recognize that each party may have no adequate remedy at law for breach by the other of any of the agreements contained herein, and, in the event of any such breach, the Company and the Executive hereby agree and consent that the other shall be entitled to injunctive relief or other appropriate remedy to

enforce performance of such agreements. In the event of a breach of this Agreement, then the prevailing party in any litigation instituted to enforce such breach shall have the right to recover from the losing party its costs related thereto, including legal fees, court costs, and any other reasonable expenses incurred.

- (b) Non-Assignability. No right, benefit, or interest hereunder shall be subject to anticipation, alienation, sale, assignment, encumbrance, charge, pledge, hypothecation, or setoff in respect of any claim, debt or obligation, or to execution, attachment, levy or similar process, or assignment by operation of law. Any attempt, voluntary or involuntary, to effect any action specified in the immediately preceding sentence shall, to the full extent permitted by law, be null, void and of no effect. Any of the foregoing to the contrary notwithstanding, this provision shall not preclude the Executive from designating one or more beneficiaries to receive any amount that may be payable after his death, and shall not preclude the legal representative of the Executive's estate from assigning any right hereunder to the person or persons entitled thereto under his will or, in the case of intestacy, applicable to his estate.

15. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the Executive and the Company (by action of its duly authorized officers) have executed this Agreement as of the date first above written.

PROVECTUS PHAMACEUTICALS, INC.

By: /s/ Timothy C. Scott
Timothy C. Scott, Ph.D., President

Attest: /s/ H. Craig Dees

EXECUTIVE:

/s/ Peter R. Culpepper
Peter R. Culpepper, CPA, MBA, CFO, COO

Consent of Independent Registered Public Accounting Firm

Provectus Biopharmaceuticals, Inc.
Knoxville, Tennessee

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-182476) and Form S-1 (No. 333-187803) of Provectus Biopharmaceuticals, Inc. of our reports dated March 13, 2014 relating to the consolidated financial statements, and the effectiveness of Provectus Biopharmaceuticals, Inc.'s internal control over financial reporting, which appear in this Form 10-K.

/s/ BDO USA, LLP

Chicago, Illinois
March 13, 2014

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) UNDER
THE SECURITIES EXCHANGE ACT OF 1934**

I, H. Craig Dees, Ph.D., certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2013 of Provectus Biopharmaceuticals, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 13, 2014

By: /s/ H. Craig Dees

H. Craig Dees

Chief Executive Officer

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) UNDER
THE SECURITIES EXCHANGE ACT OF 1934**

I, Peter R. Culpepper, certify that:

1. I have reviewed this Annual Report on Form 10-K for the fiscal year ended December 31, 2013 of Provectus Biopharmaceuticals, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 13, 2014

By: /s/ Peter R. Culpepper

Peter R. Culpepper
Chief Financial Officer
Chief Operating Officer
Chief Accounting Officer

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND
CHIEF FINANCIAL OFFICER PURSUANT TO RULE 13a-14(b) UNDER
THE SECURITIES EXCHANGE ACT OF 1934 AND SECTION 1350 OF
CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE**

Each of the undersigned, H. Craig Dees and Peter R. Culpepper, certifies, pursuant to Rule 13a-14(b) under the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code, that (1) this Annual Report on Form 10-K for the year ended December 31, 2013 of Provectus Biopharmaceuticals, Inc. (the "Company") fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act, and (2) the information contained in this report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This Certification is signed on March 13, 2014.

/s/ H. Craig Dees

H. Craig Dees, Ph.D.
Chief Executive Officer

/s/ Peter R. Culpepper

Peter R. Culpepper
Chief Financial Officer
Chief Operating Officer
Chief Accounting Officer