Amarantus Bioscience Holdings, Inc.
Form S-8
December 16, 2014

As filed with the Securities and Exchange Commission on December 16, 2014

Registration No. _____

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Amarantus BioScience Holdings, Inc.

(Exact name of registrant as specified in its charter)

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

655 Montgomery Street, Suite 900

San Francisco, CA 94111

(Address of principal executive offices) (Zip Code)

2014 Stock Plan

(Full title of the plan)

Gerald Commissiong

Chief Executive Officer

655 Montgomery Street, Suite 900

San Francisco, CA 94111

(Name and Address of agent for service)

(408) 737-2734

(Telephone number, including area code, of agent for service)

With a copy to:

Jeff Fessler, Esq.

Marcelle Balcombe, Esq.
Sichenzia Ross Friedman Ference LLP
61 Broadway, 32nd Floor
New York, New York 10006
Telephone: (212) 930-9700
Fax: (212) 930-9725

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 definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ¨ Accelerated filer ¨ Non-accelerated filer ¨ Smaller Reporting Company x

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, $0.001 par value	153,880,168 (1)	$ 0.08	(2) $ 12,310,413	$ 1,430.47

(1) Represents shares of common stock issuable pursuant to the Company's 2014 Stock Plan.

(2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(c) of the Securities Act of 1933, as amended, using the last sale price reported on the OTC Markets on December 10, 2014.

EXPLANATORY NOTE

This registration statement on Form S-8 (the "Registration Statement") relates to 153,880,168 shares of the common stock of Amarantus BioScience Holdings, Inc., a Nevada corporation (the "Registrant," the "Company," "we," "us" or "our"), $0.001 per share par value per share (the "Common Stock"), which are issuable pursuant to, or upon exercise of, options that may be granted under the Company's 2014 Stock Plan (the "Plan"). Under the Plan, a total of 153,880,168 shares of Common Stock have been reserved for issuance upon the grant and exercise of options.

This Registration Statement also includes a reoffer prospectus prepared in accordance with General Instruction C of Form S-8 and in accordance with the requirements of Part I of Form S-3, which may be utilized for reofferings and resales on a continuous or a delayed basis in the future related to the following:

- 5,400,000 shares of common stock (the "Shares") which are issuable upon exercise of options that have been granted under the Plan, with respect to which the reoffer prospectus relates are being registered for reoffers and resales by certain stockholders listed (the "Selling Stockholders"), who are our officers and directors and may be deemed to be our "affiliates", as defined in Rule 405 of the Securities Act. The Selling Stockholders may acquire the Shares upon exercise of options granted under the Plan. We do not know whether any of such Selling Stockholders will use this reoffer prospectus in connection with the offer or sale of the Shares, or, if this reoffer prospectus is so used, how many shares of Common Stock will be offered or sold. Such Selling Stockholders may resell all, a portion, or none of the shares that they may acquire pursuant to the Plan.

The reoffer prospectus does not contain all of the information included in the Registration Statement, certain items of which are contained in schedules and exhibits to the Registration Statement, as permitted by the rules and regulations of the Securities and Exchange Commission (the "SEC" or the "Commission"). Statements contained in this reoffer prospectus as to the contents of any agreement, instrument or other document referred to herein are not necessarily complete. With respect to each such agreement, instrument or other document filed as an exhibit to the Registration Statement, we refer you to the exhibit for a more complete description of the matter involved, and each such statement shall be deemed qualified in its entirety by this reference.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The Company will provide each recipient of a grant under the Plan (the "Recipients") with documents that contain information related to the Plan, and other information including, but not limited to, the disclosure required by Item 1 of Form S-8, which information is not required to be and are not being filed as a part of this Registration Statement on Form S-8 (the "Registration Statement") or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. The foregoing information and the documents incorporated by reference in response to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act. A Section 10(a) prospectus will be given to each Recipient who receives common stock covered by this Registration Statement, in accordance with Rule 428(b)(1) under the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

We will provide to each Recipient a written statement advising of the availability of documents incorporated by reference in Item 3 of Part II of this Registration Statement (which documents are incorporated by reference in this Section 10(a) prospectus) and of documents required to be delivered pursuant to Rule 428(b) under the Securities Act without charge and upon written or oral request by contacting:

Gerald Commissiong

Chief Executive Officer

655 Montgomery Street, Suite 900

San Francisco, CA 94111

REOFFER PROSPECTUS

Amarantus BioScience Holdings, Inc.

5,400,000 Shares of

Common Stock

This reoffer prospectus relates to the sale of up to 5,400,000 shares (the "Shares") of our common stock, $.001 par value per share (the "Common Stock") on The OTCQB, or such other stock market or exchange on which our common stock may be listed or quoted, in negotiated transactions or otherwise, at market prices prevailing at the time of the sale or at prices otherwise negotiated (see "Plan of Distribution" starting on page P-13 of this prospectus). We will receive no part of the proceeds from sales made under this reoffer prospectus. The selling stockholders will bear all sales commissions and similar expenses. Any other expenses incurred by us in connection with the registration and offering and not borne by the selling stockholders will be borne by us.

This reoffer prospectus has been prepared for the purposes of registering the common shares under the Securities Act to allow for future sales by selling stockholders on a continuous or delayed basis to the public without restriction.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 8 of this reoffer prospectus. These are speculative securities.

Our common stock is quoted on The OTCQB under the symbol "AMBS" and the last reported sale price of our common stock on December 15, 2014 was $0.076 per share.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is December 16, 2014

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AMARANTUS BIOSCIENCE HOLDINGS, INC.

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NO PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS, OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS, IN CONNECTION WITH THE OFFERING MADE HEREBY, AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATION MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY OR ANY OTHER PERSON. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY SALE MADE HEREUNDER SHALL UNDER ANY CIRCUMSTANCES CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY SINCE THE DATE HEREOF. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITIES OFFERED HEREBY BY ANYONE IN ANY JURISDICTION IN WHICH SUCH OFFER OR SOLICITATION IS NOT AUTHORIZED OR IN WHICH THE PERSON MAKING SUCH OFFER OR SOLICITATION IS NOT QUALIFIED TO DO SO OR TO ANY PERSON TO WHOM IT IS UNLAWFUL TO MAKE SUCH OFFER OR SOLICITATION.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should read this entire prospectus and the accompanying prospectus carefully, including the "Risk Factors" section contained in this prospectus and our consolidated financial statements and the related notes and the other documents incorporated by reference into this prospectus and in the accompanying prospectus. Unless we have indicated otherwise or the context otherwise requires, references in this prospectus or the documents incorporated by reference herein and therein to the "Company," "we," "us" and "our" refer to Amarantus BioScience Holdings, Inc. and its subsidiaries.

Business Overview

We are a California-based development-stage biopharmaceutical company founded in January 2008. We focus on developing our intellectual property and proprietary technologies to develop drug and diagnostic product candidates to treat human disease. We own or have exclusive licenses to various product candidates in the biopharmaceutical and diagnostic areas of the healthcare industry, with a specific focus on bringing these candidates to market in the areas of Alzheimer's disease, Parkinson's disease, Retinal Degenerative disorders, Wolfram's Syndrome and other ailments of the human body, with a particular focus on the nervous system. Our business model is to develop our product candidates through various de-risking milestones that we believe will be accretive to stockholder value and strategically partner with biopharmaceutical companies, diagnostic companies, investors, private foundations and other key stakeholders in the specific sub-sector of the healthcare industry in which we are developing our products in order to achieve regulatory approval in key jurisdictions and thereafter successfully market and distribute our products.

Principal Products in Development

The Company's philosophy is to acquire, in-license, discover and develop drug candidates and diagnostics with the potential to address critically important biological pathways involved in human disease.

LymPro Test ®

The Lymphocyte Proliferation Test ("LymPro Test ®", or "LymPro") is a diagnostic blood test for Alzheimer's disease originally developed by the University of Leipzig in Germany. The test works by evaluating the cell surface marker

CD69 on peripheral blood lymphocytes following a mitogenic stimulation. The underlying scientific basis for LymPro is that Alzheimer's patients have a dysfunctional cellular machinery that inappropriately allows mature neurons in the brain to enter the mitotic process (cell division /cell cycle). When this happens the neurons start the cell division process, but cannot complete that process. As a result, a number of cytokines and other genes are upregulated, ultimately leading to cell death by apoptosis. This inappropriate cell division activation process is also present in the lymphocytes of Alzheimer's patients, as lymphocytes share a similar cellular division machinery with brain neurons. We measure the integrity of this cellular division machinery process by measuring CD69 upregulation in response to the mitogenic stimulation. If CD 69 is upregulated it means that the cellular division machinery process is correct and Alzheimer's is not present. If CD69 is not upregulated, it means there is a dysfunctional cellular division machinery process, and Alzheimer's is more likely. To date, data has been published in peer-reviewed publications on LymPro with 160 patients, demonstrating 92% co-positivity and 91% co-negativity with an overall 95% accuracy rating for LymPro.

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Eltoprazine

Eltoprazine is a small molecule drug candidate that is a selective partial agonist on the 5HT1-A and 5HT1-B receptors of the serotonergic system in the brain originally discovered and developed by Solvay Pharmaceuticals (now Abbvie). The serotonergic system has been associated with a wide range of disorders motor and behavioral disorders including aggression, cognition, attention and control. The Company is developing Eltoprazine for the treatment of the primary side effect of current Parkinson's disease medication Levadopa-Induced Dyskinesia ("PD LID"), as well as Adult Attention Deficit Hyperactivity Disorder ("Adult ADHD"). To date, over 700 patients have been dosed with Eltoprazine at varying doses as high as 30mg; the active dose in both PD LID and Adult ADHD is 5mg. Primary and secondary endpoints have been met for Eltoprazine in Phase 2 trials in PD LID and Adult ADHD.

MANF

Mesencephalic Astrocyte-derived Neurotrophic Factor ("MANF") is an endogenous, evolutionally conserved and widely expressed protein that was discovered by the Company's Chief Scientific Officer Dr. John Commissiong. MANF acts on a variety of molecular functions, including as a part of the endoplasmic reticulum stress response ("ER-SR") system of the unfolded protein response ("UPR"). MANF has demonstrated efficacy as a disease-modifying treatment in various animal models, including Parkinson's disease, retinitis pigmentosa, cardiac ischemia and stroke. The Company has made a strategic decision to focus the development of MANF in orphan indications and is currently evaluating the most appropriate indication for development based on data currently being assembled internally, by contract research organizations and academic collaborators.

Since inception, the Company's research team has been focused on developing MANF as a therapeutic for Parkinson's disease, and other apoptosis-related disorders. The Company's business plans are focused in these specific areas:

Other

Exploration of the Company's PhenoGuard platform for neurrotrophic factor discovery and discovery and evaluation of external drug candidates for potential in-licensure or acquisition.

Recent Developments

Eltoprazine In-License Agreement

Effective January 14, 2014, the Company entered into a License Agreement with PGI Drug Discovery, LLC ("PGI"), pursuant to which the Company was granted an exclusive license (with a right to sublicense) to utilize certain Licensed Compounds and Licensed Products (as each is defined in the License Agreement) of PGI, which includes certain intellectual property covering the use of Eltoprazine and certain of its related compounds in all therapeutic indications

Pursuant to the terms of the license agreement, the Company has agreed to: (i) pay PGI $100,000 in cash for the License within 20 days of the execution of the License Agreement, (ii) pay PGI up to an aggregate of $4 million in development milestones through NDA submission, (iii) pay a research support payment to PGI as partial reimbursement for costs incurred for earlier research and management of CIAS, ADHD and levodopa induced dyskinesia (LID) clinical trials totaling up to $650,000 to be paid in a mixture of cash and stock, and (iv) reimburse PGI for the Eltoprazine clinical supply inventory up to $500,000 payable upon the earlier of the initiation of a Phase IIb clinical study or 6 months after the date of the License Agreement. As further consideration for the License Agreement, the Company shall pay a single digit royalty to PGI of the annual worldwide aggregate net sales by the Company.

Simultaneous with the execution of the license agreement, the Company and PGI entered into a Services Agreement pursuant to which PGI will provide certain services to the Company related to PGI's proprietary analytical systems as will be set forth in certain study plans. The Company agreed to a payment commitment of $450,000 at a minimum annual rate of $150,000 for each of three years. The Services Agreement is for a term of the later of 3 years or the completion of any study plan accepted by the parties under the Services Agreement.

As partial consideration of the research support payment by the Company to PGI, the Company entered into a Securities Purchase Agreement with PGI, pursuant to which PGI subscribed for 4,000,000 shares of the Company's common stock and the Company granted PGI certain piggy-back registration rights.

MANF In-License Option Agreement

On February 28, 2014, the "Company entered into an Option Agreement with the University of Massachusetts pursuant to which the Company was granted an option to obtain an exclusive license (with the right to sublicense) in the patent applications to be filed based upon UMA 14-006 titled "MANF as a Therapeutic Agent for the production of Mammalian Sensory Cells". The term of the option is 18 months which may be extended by the Company for an additional six months upon demonstration to UMass of continued progress evaluating the business opportunity with respect to the patent rights and payment of a fee to the University. In consideration for the grant of the option, the Company paid an option fee of $1,000 and shall pay a retainer fee of $15,000 to cover initial patent expenses to be incurred in connection with obtaining the patent rights.

Option to acquire Cutanogen Corporation

On November 7, 2014, the Company" entered into an Option Agreement (the "Option Agreement") with Lonza Walkersville pursuant to which the Company was granted an exclusive option to acquire Cutanogen Corporation a wholly-owned subsidiary of Lonza.

As consideration for the option, on November 10, 2014, the Company paid Lonza a one-time cash fee of $250,000. The Company has the right to exercise the option at any time after November 7, 2014 through and including December 31, 2014. The Option shall be exercised pursuant a Share Purchase Agreement pursuant to which the Company shall purchase all of the shares of Cutanogen then owned by Lonza (the "Shares") as well as certain assets of Lonza. As partial consideration for the Shares, the Company shall pay to Lonza, based upon the milestone schedule as set forth below:

- $4,000,000 upon execution of the SPA;
- $1,000,000 upon (i) successful completion of Phase 1 clinical trial, or (ii) submission for a Humanitarian Use Exemption; and
- $4,000,000 upon submission of a Biologic License Application to the Federal Drug Administration.

In addition, the Company shall pay to Lonza two (2%) of Net Sales (as defined in the Share Purchase Agreement) during each Earnout Period (as defined in the Share Purchase Agreement).

Asset Purchase to acquire assets of Regenicin

On November 7, 2014, the Company entered into an Asset Purchase Agreement by and among the Company, Regenicin, Inc., Clark Corporate Law Group, LLP, and Gordon & Rees, LLP, pursuant to which the Company agreed to acquire certain assets of Regenicin, including (i) rights to the pending litigation Regenicin brought against Lonza that was filed in the Superior Court of Fulton County, State of Georgia, which lawsuit was subsequently removed to the United States District Court for Northern Georgia (CV:1:13-CV-3569), and subsequently transferred to the United States District Court for New Jersey (CV:1:14-CV-02775) and is currently pending, and (ii) all of Cutanogen's intellectual property rights held by Regenicin, including all intellectual property rights related to PermaDerm and any other engineered skin technology for the treatment of severe burns in humans, including any related trademarks. Upon exercise of the option pursuant to the Option Agreement described above, the Company will dismiss the Litigation with prejudice.

As consideration for the assets, the Company agreed to (i) pay Regenecin and Clark Corporate Law Group a one-time aggregate cash fee of $3,500,000 pursuant to the schedule below, (ii) issue to Regenicin 37,500,000 shares of the Company's common stock and (iii) pay Gordon & Rees, at closing, a cash payment of $450,000 as payment for legal services provided in connection with the pending litigation.

The cash portion of the consideration will be paid by the Company pursuant to the following schedule:

At Closing:

$300,000 to Regenicin

$200,000 to Clark Corporate Law Group

On or before December 31, 2014:

$150,000 to Regenicin

$100,000 to Clark Corporate Law Group

On January 31, 2015:

$2,550,000 to Regenicin

$200,000 to Clark Corporate Law Group

Pursuant to the Asset Purchase Agreement, upon receipt of the payments described above, the senior secured promissory note issued to Clark Corporate Law Group dated May 20, 2013, by Regenicin, will be fully satisfied and terminated.

In addition, the Company received an exclusive, five (5) year option to license any severe burn-related products developed by Regenicin. The Company can exercise this option at a cost of $10,000,000 USD plus a royalty of 5% on gross revenues in excess of $150M USD.

Corporate Information

We were incorporated on January 14, 2008 in the state of Delaware and were reincorporated in Nevada on March 22, 2013. The Company is a development stage biopharmaceutical drug development holding company dedicated to sourcing high-potential therapeutic and diagnostic platform technologies and aligning their development with complementary biopharmaceutical assets to reduce overall enterprise risk. Our principal executive offices are located at 655 Montgomery Street, Suite 900, San Francisco, CA 94111 and our telephone number is (408) 737-2734. Our website address is http:// http://www.amarantus.com/. The information on, or that can be accessed through, our website is not part of this prospectus.

RISK FACTORS

You should carefully consider the risks described below before making an investment decision. The risks described below are not the only ones we face. Additional risks we are not presently aware of or that we currently believe are

immaterial may also impair our business operations. Our business could be harmed by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to the other information contained or incorporated by reference into this prospectus, including our financial statements and related notes.

Risks Related to Our Product Candidates and Operations

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

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

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

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

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

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

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

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

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

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

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

To the extent that consultants or key employees apply technological information independently developed by them or by others to our product candidates, disputes may arise as to the proprietary rights of the information, which may not be resolved in our favor. Consultants and key employees that work with our confidential and proprietary technologies are required to assign all intellectual property rights in their discoveries to us. However, these consultants or key

employees may terminate their relationship with us, and we cannot preclude them indefinitely from dealing with our competitors. If our trade secrets become known to competitors with greater experience and financial resources, the competitors may copy or use our trade secrets and other proprietary information in the advancement of their products, methods or technologies. If we were to prosecute a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time consuming and the outcome would be unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets than courts in the United States. Moreover, if our competitors independently develop equivalent knowledge, we would lack any contractual claim to this information, and our business could be harmed.

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

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

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

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

Risks Associated with Our Financial Condition

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

Our consolidated financial statements as of December 31, 2013 were prepared under the assumption that we will continue as a going concern for the next twelve months. Our independent registered public accounting firm has issued a report that included an explanatory paragraph referring to our projected future losses along with recurring losses from operations and expressing substantial doubt in our ability to continue as a going concern without additional capital becoming available. Our ability to continue as a going concern is dependent upon our ability to obtain additional equity or debt financing, attain further operating efficiencies, reduce expenditures, and, ultimately, to generate revenue. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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

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

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

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

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

We currently do not have any products that are approved for commercial sale. To date, we have funded our operations primarily from grants and sales of our securities. We have not received, and do not expect to receive for at least the next several years in the case of Eltoprazine and MANF and until the 1st half of 2015 in the case of LymPro, if at all, any revenues from the commercialization of our product candidates. To obtain revenues from sales of our product candidates, we must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, manufacturing and marketing drugs with commercial potential. We may never succeed in these activities, and may not generate sufficient revenues to continue our business operations or achieve profitability.

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

As of December 31, 2013, we had an accumulated deficit of approximately $27.0 million. We expect to incur significant and increasing operating losses for the next several years as we expand our research and development, advance product candidates into clinical development, complete clinical trials, seek regulatory approval and, if we receive FDA approval, commercialize our products. Because of the numerous risks and uncertainties associated with product development efforts, we are unable to predict the extent of any future losses or when we will become profitable, if at all. If we are unable to achieve and then maintain profitability, the market value of our common stock will likely decline.

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

We expect to continue to spend substantial amounts to:

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

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

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

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

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

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

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

At December 31, 2013 we had a working capital deficit of $7,291,370. We have an operating cash flow deficit of $8,206,256 for the period January 14, 2008 (date of inception) through December 31, 2013, an operating cash flow deficit of $1,154,126 for the fiscal year ended December 31, 2012 and for the year ended December 31, 2013, an operating cash flow deficit of $3,473,237. We do not currently have sufficient financial resources to fund our operations or those of our subsidiaries. Therefore, we need additional funds to continue these operations.

We may direct Lincoln Park to purchase up to an additional $19,600,000 worth of shares of our common stock under our agreement over a 30 month period generally in amounts up to 1,000,000 shares of our common stock on any such business day, which amounts may be increased to up to 2,500,000, provided the closing price of our common stock exceeds a certain threshold with a maximum limit of up to $500,000 worth of our common stock on any single business day, plus an additional “accelerated amount” under certain circumstances. However, Lincoln Park shall not purchase any shares of our common stock on any business day that the closing sale price of our common stock is less than $0.04 per share, subject to adjustment as set forth in the Purchase Agreement. Assuming a purchase price of $0.10 per share (the closing sale price of the common stock on June 2, 2014) and the purchase by Lincoln Park of the full 76,500,000 purchase shares under the purchase agreement, proceeds to us would only be $7,650,000. As of November 3, 2014, the Company had received $2,360,579 from Lincoln Park in consideration for the issuance of an aggregate of 22,454,223 Company common shares, of which 413,103 shares were for commitment fees.

The extent we rely on Lincoln Park as a source of funding will depend on a number of factors including, the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources. If obtaining sufficient funding from Lincoln Park were to prove unavailable or prohibitively dilutive, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we sell all $20,000,000 under the Purchase Agreement to Lincoln Park, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects.

Risks Associated with Management

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

Due to the specified nature of our business, having certain key personnel is essential to the development and marketing of the products we plan to sell and thus to the entire business itself. Consequently, the loss of any of those

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

Risks Related to Our Common Stock

Our stock price may be volatile.

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

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

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

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

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

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

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

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

Our common stock is subject to the "penny stock" rules adopted under Section 15(g) of the Exchange Act. The penny stock rules generally apply to companies whose common stock is not listed on The Nasdaq Stock Market or other national securities exchange and trades at less than $4.00 per share, other than companies that have had average revenue of at least $6,000,000 for the last three years or that have tangible net worth of at least $5,000,000 ($2,000,000 if the company has been operating for three or more years). These rules require, among other things, that brokers who trade penny stock to persons other than "established customers" complete certain documentation, make suitability inquiries of investors and provide investors with certain information concerning trading in the security, including a risk disclosure document and quote information under certain circumstances. Many brokers have decided not to trade penny stocks because of the requirements of the penny stock rules and, as a result, the number of broker-dealers willing to act as market makers in such securities is limited. If we remain subject to the penny stock rules for any significant period, it could have an adverse effect on the market, if any, for our securities. If our securities are subject to the penny stock rules, investors will find it more difficult to dispose of our securities.

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

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

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

Our board of directors has the authority to fix and determine the relative rights and preferences of preferred stock and has designated 250,000 preferred shares as Series A Convertible Preferred Stock, 3,000,000 as Series B Convertible Preferred Stock, 750,000 as Series C Convertible Preferred Stock, 1,300 as Series D 8% Convertible Preferred Stock, and 3,800 as Series E 12% Convertible Preferred Stock. Our board of directors also has the authority to issue additional shares of our preferred stock without further stockholder approval. As a result, our board of directors could authorize the issuance of a series of preferred stock that would grant to holders the preferred right to our assets upon liquidation, the right to receive dividend payments before dividends are distributed to the holders of common stock and the right to the redemption of the shares, together with a premium, prior to the redemption of our common stock. In addition, our board of directors could authorize the issuance of a series of preferred stock that has greater voting

power than our common stock or that is convertible into our common stock, which could decrease the relative voting power of our common stock or result in dilution to our existing stockholders.

The sale or issuance of our common stock to Lincoln Park may cause dilution and the sale of the shares of common stock acquired by Lincoln Park, or the perception that such sales may occur, could cause the price of our common stock to fall

On March 7, 2014, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to $20,000,000 of our common stock. Concurrently with the execution of the Purchase Agreement on March 7, 2014, we issued 4,000,000 shares of our common stock to Lincoln Park for a total purchase price of $400,000 in the Initial Purchase under the Purchase Agreement and 6,000,000 Initial Commitment Shares to Lincoln Park as a fee for its commitment to purchase additional shares of our common stock under the Purchase Agreement. The additional shares that may be sold pursuant to the Purchase Agreement may be sold by us to Lincoln Park at our discretion from time to time over a 30-month period commencing after the SEC has declared effective the registration statement that includes this prospectus.

Other than with respect to the Initial Purchase by Lincoln Park under the Purchase Agreement, the purchase price for the shares that we may sell to Lincoln Park under the Purchase Agreement will fluctuate based on the market price of our common stock. Depending on market liquidity at the time, sales of such shares may cause the market price of our common stock to fall.

We generally have the right to control the timing and amount of any sales of our shares to Lincoln Park, except that, pursuant to the terms of our agreements with Lincoln Park, we would be unable to sell shares to Lincoln Park if and when the closing sale price of our common stock is below $0.04 per share, subject to adjustment as set forth in the Purchase Agreement. Additional sales of our common stock, if any, to Lincoln Park will depend upon market conditions and other factors to be determined by us. As such, other than the Initial Purchase, Lincoln Park may ultimately purchase all, some or none of the shares of our common stock that may be sold pursuant to the Purchase Agreement and, after it has acquired shares, Lincoln Park may sell all, some or none of those shares. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Lincoln Park, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements.

In some cases, you can identify forward-looking statements by terminology, such as “expects,” “anticipates,” “intends,” “estimates,” “plans,” “believes,” “seeks,” “may,” “should”, “could” or the negative of such terms or other similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus supplement.

You should read this prospectus supplement and any accompanying prospectus and the documents that we reference herein and therein and have filed as exhibits to the registration statement, of which this prospectus supplement is part, completely and with the understanding that our actual future results may be materially different from what we expect. You should assume that the information appearing in this prospectus supplement and any accompanying prospectus is accurate as of the date on the front cover of this prospectus supplement. Because the risk factors referred to above, as well as the risk factors referred to on page of this prospectus supplement and incorporated herein by reference, could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our

business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus supplement and the accompanying prospectus, and particularly our forward-looking statements, by these cautionary statements.

USE OF PROCEEDS

This prospectus relates to sale of shares of common stock that may be offered and sold from time to time by the selling stockholders. We will not receive any proceeds from the sale of shares by the selling stockholders.

SELLING STOCKHOLDERS

The selling stockholders named in this prospectus (the "Selling Stockholders") are offering 5,400,000 shares of our common stock including shares of stock which are issuable to the Selling Stockholders directly by options, stock awards or indirectly through exercise of options pursuant to our 2014 Stock Plan, as amended and restated. The selling stockholders are our officers and directors, and may be deemed to be our "affiliates," as defined in Rule 405 of the Securities Act, who may acquire such shares upon exercise of options granted under the Plan. We do not know whether any of such individuals will be granted additional options under the Plan, whether any of such Selling Stockholders will use this prospectus in connection with the offer or sale of any shares of Common Stock, or, if this prospectus is so used, how many shares of Common Stock will be offered or sold. The selling stockholders may resell all, a portion, or none of the shares that they may acquire pursuant to the Plan. The Selling Stockholders named in this prospectus were granted the options in consideration of services and such shares are issuable upon exercise of stock options at various exercise prices, depending on the dates of grant.

The following table provides, as of December 11, 2014, information regarding the beneficial ownership of our common shares held by each of the selling stockholders, including:

1. the total number of common shares owned by each selling stockholder prior to this offering;

2. the total number of common shares that are to be offered by each selling stockholder;

3. the total number of common shares that will be owned by each selling stockholder upon completion of the offering; and

4. the percentage owned by each selling stockholder, prior to and upon completion of the offering.

Information with respect to beneficial ownership is based upon information obtained from the Selling Stockholders. Information with respect to "Shares Beneficially Owned Prior to the Offering" includes the shares issuable upon exercise of the stock options held by the selling stockholders to the extent these options are exercisable within 60 days of December 11, 2014. Information with respect to "Shares Beneficially Owned After the Offering" assumes the sale of all of the common shares offered by this prospectus and no other purchases or sales of our common shares by the selling stockholders. Except as described below and to our knowledge, the named selling shareholder beneficially owns and has sole voting and investment power over all common shares or rights to these common shares.

Because the Selling Stockholders may offer all or part of the shares of common stock, which they own pursuant to the offering contemplated by this reoffer prospectus, and because its offering is not being underwritten on a firm

commitment basis, no estimate can be given as to the amount of shares that will be held upon termination of this offering. The shares of common stock currently owned offered by this reoffer prospectus may be offered from time to time by the Selling Stockholders named below. However, information with respect to "Shares Beneficially Owned Upon Completion the Offering" assumes the sale of all of the shares of common stock offered by this prospectus and no other purchases or sales of our shares of common stock by the selling stockholders. Except as described below and to our knowledge, the named selling stockholder beneficially owns and has sole voting and investment power over all common shares or rights to these common shares.

	Shares Beneficially Owned prior to this Offering (1)	Number of Shares Being	Shares Beneficially Owned Upon Completion of the Offering (1)	
Name	Number	Offered	Number	Percent (2)
Gerald E. Commissiong (3)	8,777,783	5,000,000	3,777,783	*
Donald Huffman (4)	110,685	200,000	0	0
Iain Ross (5)	89,863	200,000	0	0
Total		5,400,000		

* Less than one percent (1%).

(1) The number and percentage of shares beneficially owned is determined in accordance with Rule 13d-3 of the Securities Exchange Act of 1934, as amended, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rule, beneficial ownership includes any shares as to which the selling stockholder has sole or shared voting power or investment power and also any shares which the selling stockholder has the right to acquire within 60 days.

(2) Percentage is based upon 838,135,851 shares of common stock outstanding as of December 11, 2014.

(3) The shares beneficially owned by the selling shareholder represent: (i) 269,329 shares of common stock underlying an option to purchase shares at a price of $0.0237 per share which are exercisable within the next 60 days; . (ii) 350,000 shares of common stock which are issuable upon conversion of 350,000 shares of Series C Convertible Preferred stock; (iii) 138,889 shares of common stock which are issuable upon exercise of outstanding warrants, and (iv) 8,019,565 shares of common stock. The shares offered by the selling shareholder represent shares underlying an option to purchase shares of common stock at a price of $0.0876 per share, of which 25% of the shares shall become exercisable on the first anniversary with the remainder vesting in equal monthly installments over a 36 month period.

(4) The shares offered by the selling shareholder represent shares underlying an option to purchase 200,000 shares of common stock at a price of $0.1460 per share, of which 110,685 are exercisable within the next 60 days and are deemed to be beneficially owned by the selling stockholder.

(5) The shares offered by the selling shareholder represent shares underlying an option to purchase 200,000 shares of common stock at a price of $0.1220 per share, of which 89,863 are exercisable within the next 60 days and are deemed to be beneficially owned by the selling stockholder.

PLAN OF DISTRIBUTION

Timing of Sales

The selling stockholders may offer and sell the shares covered by this prospectus at various times. The selling stockholders will act independently of our company in making decisions with respect to the timing, manner and size of each sale.

No Known Agreements to Resell the Shares

To our knowledge, no selling stockholder has any agreement or understanding, directly or indirectly, with any person to resell the common shares covered by this prospectus.

Offering Price

The sales price offered by the selling stockholders to the public may be:

1. the market price prevailing at the time of sale;

2. a price related to such prevailing market price; or

3. such other price as the selling stockholders determine from time to time.

Manner of Sale

The common shares may be sold by means of one or more of the following methods:

1. a block trade in which the broker-dealer so engaged will attempt to sell the common shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

2. Purchases by a broker-dealer as principal and resale by that broker-dealer for its account pursuant to this prospectus;

3. ordinary brokerage transactions in which the broker solicits purchasers;

4. through options, swaps or derivatives;

5. in transactions to cover short sales;

6. privately negotiated transactions; or

7. in a combination of any of the above methods.

The selling stockholders may sell their common shares directly to purchasers or may use brokers, dealers, underwriters or agents to sell their common shares. Brokers or dealers engaged by the selling stockholders may arrange for other brokers or dealers to participate. Brokers or dealers may receive commissions, discounts or concessions from the selling stockholders, or, if any such broker-dealer acts as agent for the purchaser of common shares, from the purchaser in amounts to be negotiated immediately prior to the sale. The compensation received by brokers or dealers may, but is not expected to, exceed that which is customary for the types of transactions involved.

Broker-dealers may agree with a selling stockholder to sell a specified number of common shares at a stipulated price per common share, and, to the extent the broker-dealer is unable to do so acting as agent for a selling stockholder, to purchase as principal any unsold common shares at the price required to fulfill the broker-dealer commitment to the selling stockholder.

Broker-dealers who acquire common shares as principal may thereafter resell the common shares from time to time in transactions, which may involve block transactions and sales to and through other broker-dealers, including transactions of the nature described above, on The NASDAQ Capital Market or otherwise at prices and on terms then prevailing at the time of sale, at prices then related to the then-current market price or in negotiated transactions. In connection with resales of the common shares, broker-dealers may pay to or receive from the purchasers of shares commissions as described above.

If our selling stockholders enter into arrangements with brokers or dealers, as described above, we are obligated to file a post-effective amendment to this registration statement disclosing such arrangements, including the names of any broker-dealers acting as underwriters.

The selling stockholders and any broker-dealers or agents that participate with the selling stockholders in the sale of the common shares may be deemed to be “underwriters” within the meaning of the Securities Act. In that event, any commissions received by broker-dealers or agents and any profit on the resale of the common shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

We will make copies of this prospectus available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act.

Sales Pursuant to Rule 144

Any common shares covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus.

Regulation M

The selling stockholders must comply with the requirements of the Securities Act and the Exchange Act in the offer and sale of the common stock. In particular we will advise the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of common shares in the market and to the activities of the selling stockholders and their affiliates. Regulation M under the Exchange Act prohibits, with certain exceptions, participants in a distribution from bidding for, or purchasing for an account in which the participant has a beneficial interest, any of the securities that are the subject of the distribution.

Accordingly, during such times as a selling stockholder may be deemed to be engaged in a distribution of the common stock, and therefore be considered to be an underwriter, the selling stockholder must comply with applicable law and, among other things:

1. may not engage in any stabilization activities in connection with our common stock;

2. may not cover short sales by purchasing shares while the distribution is taking place; and

3. may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities other than as permitted under the Exchange Act.

State Securities Laws

Under the securities laws of some states, the common shares may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the common shares may not be sold unless the shares have been registered or qualified for sale in the state or an exemption from registration or qualification is available and is complied with.

Expenses of Registration

We are bearing all costs relating to the registration of the common stock. These expenses are estimated to be $5,000, including, but not limited to, legal, accounting, printing and mailing fees. The selling stockholders, however, will pay any commissions or other fees payable to brokers or dealers in connection with any sale of the common stock.

LEGAL MATTERS

The validity of the common stock has been passed upon, for us by Sichenzia Ross Friedman Ference LLP, New York, New York.

EXPERTS

The (i) consolidated balance sheet as of December 31, 2013, and the related consolidated statements of operations, stockholders' equity (deficit), and cash flows for the years then ended have been incorporated in reliance on the report of Marcum LLP, and (ii) consolidated balance sheets as of December 31, 2012, and the related consolidated statements of operations, stockholders' equity, and cash flows for the years then ended and for the period from January 14, 2008 (Inception) through December 31, 2012 have been incorporated in reliance on the report of Silberstein Ungar, PLLC, an independent registered public accounting firm, each incorporated herein by reference, given on the authority of said firms as experts in auditing and accounting.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The Securities and Exchange Commission ("Commission") allows us to incorporate by reference certain of our publicly filed documents into this prospectus, which means that such information is considered part of this prospectus. As such, the following documents filed with the Commission are incorporated herein by reference:

- The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2013 filed with the Commission on April 21, 2014.
- The Registrant's amended Annual Report on Form 10-K for the fiscal year ended December 31, 2013 filed with the Commission on April 22, 2014.
- The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2014 filed with the Commission on May 20, 2014.
- The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2014 filed with the Commission on August 15, 2014.
- The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2014 filed with the Commission on November 7, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on January 14, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on January 17, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on February 3, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on February 19, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on March 6, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on March 13, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on March 31, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on April 3, 2014.

- The Registrant's Current report on Form 8-K filed with the Commission on April 29, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on May 5, 2014.

- The Registrant's Current report on Form 8-K filed with the Commission on May 21, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on June 24, 2014
- The Registrant's Current report on Form 8-K filed with the Commission on July 2, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on July 7, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on July 9, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on July 28, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 6, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 11, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 27, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 29, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on September 2, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on September 24, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on September 30, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on October 6, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on October 10, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on November 14, 2014
- The Registrant's Current report on Form 8-K filed with the Commission on November 17, 2014The Registrant's Current report on Form 8-K filed with the Commission on November 18, 2014
- The Registrant's Current report on Form 8-K filed with the Commission on November 24, 20014
- The Registrant's Current report on Form 8-K filed with the Commission on December 8, 2014

- The description of our common stock set forth in our registration statement on Form 8-A (Registration No. 000-55016) filed with the SEC under Section 12(g) of the Securities Exchange Act of 1934, as amended, on August 2, 2013, including any amendments or reports filed for the purpose of updating such description.

All documents subsequently filed with the Commission by the Registrant pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered hereunder have been sold or which deregisters all securities then remaining unsold under this Registration Statement, shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such earlier statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

We will provide without charge to each person to whom a copy of this prospectus has been delivered, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, other than exhibits to such documents. Written or oral requests for such copies should be directed to Robert Farrell, the Company's Chief Financial Officer.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION

FOR SECURITIES ACT LIABILITIES

As permitted by the Nevada Revised Statutes, we have adopted provisions in our certificate of incorporation and by-laws that limit or eliminate the personal liability of our directors. Consequently, a director is not personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;

- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;

- any unlawful payments related to dividends or unlawful stock repurchases, redemptions or other distributions; or

- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our by-laws provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the Nevada Revised Statutes; and

- we will advance expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings, subject to limited exceptions.

These provisions may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. Furthermore, a stockholder's investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. We believe that these provisions, the indemnification agreements and the insurance are necessary to attract and retain talented and experienced directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

ADDITIONAL INFORMATION AVAILABLE TO YOU

This prospectus is part of a Registration Statement on Form S-8 that we filed with the SEC. Certain information in the Registration Statement has been omitted from this prospectus in accordance with the rules of the SEC. We file annual, quarterly and special reports, proxy statements and other information with the SEC. You can inspect and copy the Registration Statement as well as reports, proxy statements and other information we have filed with the SEC at the public reference room maintained by the SEC at 100 F Street N.E. Washington, D.C. 20549. You can obtain copies from the public reference room of the SEC at 100 F Street N.E. Washington, D.C. 20549, upon payment of certain fees. You can call the SEC at 1-800-732-0330 for further information about the public reference room. We are also required to file electronic versions of these documents with the SEC, which may be accessed through the SEC's World Wide Web site at http://www.sec.gov.

AMARANTUS BIOSCIENCE HOLDINGS, INC.

5,400,000 SHARES OF COMMON STOCK

PROSPECTUS

December 16, 2014

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the documents listed below. In addition, all documents subsequently filed pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"), prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing of such documents:

- The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2013 filed with the Commission on April 21, 2014.
- The Registrant's amended Annual Report on Form 10-K for the fiscal year ended December 31, 2013 filed with the Commission on April 22, 2014.
- The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2014 filed with the Commission on May 20, 2014.
- The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2014 filed with the Commission on August 15, 2014.
- The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2014 filed with the Commission on November 7, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on January 14, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on January 17, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on February 3, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on February 19, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on March 6, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on March 13, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on March 31, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on April 3, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on April 29, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on May 5, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on May 21, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on June 24, 2014
- The Registrant's Current report on Form 8-K filed with the Commission on July 2, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on July 7, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on July 9, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on July 28, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 6, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 11, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 27, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on August 29, 2014.

- The Registrant's Current report on Form 8-K filed with the Commission on September 2, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on September 24, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on September 30, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on October 6, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on October 10, 2014.
- The Registrant's Current report on Form 8-K filed with the Commission on November 14, 2014
- The Registrant's Current report on Form 8-K filed with the Commission on November 17, 2014
- The Registrant's Current report on Form 8-K filed with the Commission on November 18, 2014
- The Registrant's Current report on Form 8-K filed with the Commission on November 24, 20014
- The Registrant's Current report on Form 8-K filed with the Commission on December 8, 2014
- The description of our common stock set forth in our registration statement on Form 8-A (Registration No. 000-55016) filed with the SEC under Section 12(g) of the Securities Exchange Act of 1934, as amended, on August 2, 2013, including any amendments or reports filed for the purpose of updating such description.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus. Requests should be directed to our CEO, Gerald Commissiong.

Any statement contained in a document incorporated, or deemed to be incorporated, by reference in this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement or incorporated by reference, or in any other subsequently filed document that also is or is deemed to be incorporated by reference, modifies or supersedes the statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

In addition, all documents we subsequently file pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents.

You may request a copy of these filings at no cost, by writing or telephoning us at the following address or telephone number:

Gerald Commissiong

Chief Executive Officer

655 Montgomery Street, Suite 900

San Francisco, CA 94111

(408) 737-2734

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 78.7502(1) of the Nevada Revised Statutes provides that a corporation may indemnify any person who was or is a party, or is threatened to be made a party, to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (except in an action brought by or on behalf of the corporation) if that person 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 enterprise, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by that person in connection with such action, suit or proceeding, if that person acted in good faith and in a manner which that person reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceedings, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, alone, does not create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in, or not opposed to, the best interests of the corporation, and that, with respect to any criminal action or proceeding, the person had reasonable cause to believe his action was unlawful.

Section 78.7502(2) of the Nevada Revised Statutes provides that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit brought by or on behalf of the corporation to procure a judgment in its favor because the person acted in any of the capacities set forth above, against expenses, including amounts paid in settlement and attorneys' fees, actually and reasonably incurred by that person in connection with the defense or settlement of such action or suit, if the person acted in accordance with the standard set forth above, except that no indemnification may be made in respect of any claim, issue or matter as to which such person shall have been adjudged by a court of competent jurisdiction after exhaustion of all appeals therefrom to be liable to the corporation or for amounts paid in settlement to the corporation unless and only to the extent that the court in which such action or suit was brought or other court of competent jurisdiction determines that, in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper.

Section 78.7502(3) of the Nevada Revised Statutes further provides that, to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections 1 and 2 thereof, or in the defense of any claim, issue or matter therein, that person shall be indemnified by the corporation against expenses (including attorneys' fees) actually and reasonably incurred by that person in connection therewith.

Section 78.751 of the Nevada Revised Statutes provides that unless indemnification is ordered by a court, the determination to provide indemnification must be made by the stockholders, by a majority vote of a quorum of the board of directors who were not parties to the action, suit or proceeding, or in specified circumstances by independent legal counsel in a written opinion. In addition, the articles of incorporation, bylaws or an agreement made by the corporation may provide for the payment of the expenses of a director or officer of the expenses of defending an action as incurred upon receipt of an undertaking to repay the amount if it is ultimately determined by a court of competent jurisdiction that the person is not entitled to indemnification. Section 78.751 of the Nevada Revised Statutes further provides that the indemnification provided for therein shall not be deemed exclusive of any other rights to which the indemnified party may be entitled and that the scope of indemnification shall continue as to directors, officers, employees or agents who have ceased to hold such positions, and to their heirs, executors and administrators.

Section 78.752 of the Nevada Revised Statutes provides that a corporation may purchase and maintain insurance on behalf of a director, officer, employee or agent of the corporation against any liability asserted against him or incurred by him in any such capacity or arising out of his status as such whether or not the corporation would have the authority to indemnify him against such liabilities and expenses.

Our Articles of Incorporation, as amended, provide that except as otherwise provided in Nevada Revised Statutes Section 35.230, 90.660, 91.250, 452.200, 452.270, 668.045 and 694A.030, a director or officer is not individually liable to the Company, its stockholders or its creditors for any damages as a result of any act or failure to act in his capacity as a director or officer unless it is proven that: (a) his act or refusal to act constituted a breach of his fiduciary duties as a director or officer; and (b) his breach of those duties involved intentional misconduct, fraud or a knowing

violation of law.

Our Bylaws also provides for indemnification or our directors and officers to the extent provided by the Nevada Revised Statutes.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Description
4.1	2014 Stock Plan (Filed as Appendix D to the Company's definitive Proxy Statement pursuant to Section 14(a) filed with the Securities and Exchange Commission on August 19, 2014)
5.1	Opinion of Sichenzia Ross Friedman Ference LLP
23.1	Consent of Marcum LLP
23.2	Consent of Silberstein Ungar, PLLC
23.3	Consent of Sichenzia Ross Friedman Ference LLP (included in Exhibit 5.1)
24.1	Powers of Attorney (included on signature page)

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) to include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of San Francisco, California, on December 16, 2014.

AMARANTUS BIOSCIENCE HOLDINGS, INC.

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

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

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Gerald Commissiong, his or her true and lawful attorney-in-fact and agents with full power of substitution and resubstitution, for him and in his name, place, and stead, in any and all capacities to sign any and all amendments (including post-effective amendments) and additions to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, and hereby grants to such attorney-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agents or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated:

SIGNATURE	TITLE	DATE
/s/ Gerald Commissiong Gerald Commissiong	Chief Executive Officer and Director (Principal Executive Officer)	December 16, 2014
/s/ Robert Farrell Robert Farrell	Chief Financial Officer (Principal Financial and Accounting Officer)	December 16, 2014

John Commissiong	Chief Scientific Officer and Director	December 16, 2014
/s/ Robert Harris Robert Harris	Director	December 16, 2014
/s/ Dr. David A. Lowe David Lowe	Director	December 16, 2014
Donald D. Huffman	Director	December 16, 2014
/s/ Iain Ross Iain Ross	Director	December 16, 2014
/s/ Dr. Jospeh Rubinfeld Dr. Joseph Rubinfeld	Director	December 16, 2014

EXHIBIT INDEX

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