

An offering statement pursuant to Regulation A relating to these securities has been filed with the Securities and Exchange Commission. Information contained in this Preliminary Offering Circular is subject to completion or amendment. These securities may not be sold nor may offers to buy be accepted before the offering statement filed with the Commission is qualified. This Preliminary Offering Circular shall not constitute an offer to sell or the solicitation of an offer to buy nor may there be any sales of these securities in any state in which such offer, solicitation or sale would be unlawful before registration or qualification under the laws of any such state. We may elect to satisfy our obligation to deliver a Final Offering Circular by sending you a notice within two business days after the completion of our sale to you that contains the URL where the Offering Circular was filed may be obtained.

Preliminary Offering Circular

Subject to Completion. Dated _____ 2018

Amarantus Bioscience Holdings, Inc.

(Exact name of issuer as specified in its charter)

Nevada

(State or other jurisdiction of incorporation or organization)

<https://www.amarantus.com/>

45 Wall St., Suite 920
New York, NY 10005
650-862-5391

(Address, including zip code, and telephone number, including area code of issuer's principal executive office)

2834 – Pharmaceutical Preparations

(Primary Standard Industrial Classification Code Number)

26-0690857

(I.R.S. Employer Identification Number)

**Maximum offering between
2,000,000,000 shares at a price of \$0.01 per share
and 20,000,000 shares at a price of \$1.00 per share**

This is a public offering of shares of common stock of Amarantus Bioscience Holdings, Inc.

The offering will be at a fixed price to be determined at the time of qualification. The end date of the offering will be exactly 180 days from the date the Offering Circular is approved by the Attorney General of the state of New York (unless extended by the Company, in its own discretion, for up to another 90 days).

Our common stock currently trades on the OTC Pink market under the symbol "AMBS" and the closing price of our common stock on January 2, 2020 was \$0.0105. Our common stock currently trades on a sporadic and limited basis.

	<u>Price to public</u>	<u>Underwriting discount and commissions</u>	<u>Proceeds to Issuer</u>	<u>Proceeds to other persons</u>
Per share/unit (range minimum):	\$ 0.01	N/A	\$ 0.01	N/A
Per share/unit (range maximum):	\$ 1.00	N/A	\$ 1.00	N/A
Total				

We are offering our shares without the use of an exclusive placement agent. However, the Company reserves the right to retain one at its sole discretion. There is no minimum offering amount, the proceeds will be immediately disbursed to us and the purchased shares will be disbursed to the investors.

We expect to commence the sale of the shares as of the date on which the Offering Statement of which this Offering Circular is approved by the Attorney General of the state of New York.

See "Risk Factors" to read about factors you should consider before buying shares of common stock.

Generally, no sale may be made to you in this offering if the aggregate purchase price you pay is more than 10% of the greater of your annual income or net worth. Different rules apply to accredited investors and non-natural persons. Before making any representation that your investment does not exceed applicable thresholds, we encourage you to review Rule 251(d)(2)(i)(C) of Regulation A. For general information on investing, we encourage you to refer to www.investor.gov.

The United States Securities and Exchange Commission does not pass upon the merits of or give its approval to any securities offered or the terms of the offering, nor does it pass upon the accuracy or completeness of any offering circular or other solicitation materials. These securities are offered pursuant to an exemption from registration with the Commission; however, the Commission has not made an independent determination that the securities offered are exempt from registration.

This Offering Circular is following the offering circular format described in Part II (a)(1)(ii) of Form 1-A.

Offering Circular dated _____, 2020

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No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this Offering Circular. You must not rely on any unauthorized information or representations. This Offering Circular is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this Offering Circular is current only as of its date.

SUMMARY

This summary highlights information contained elsewhere in this Offering Circular. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should read this entire Offering Circular carefully, including the "Risk Factors" section, our historical consolidated financial statements and the notes thereto, and unaudited pro forma financial information, each included elsewhere in this Offering Circular. Unless the context requires otherwise, references in this Offering Circular to "the Company," "we," "us" and "our" refer to Amaranthus Bioscience Holdings, Inc.

Our Company

Amarantus Bioscience Holdings ("AMBS" or "The Company") is a biotechnology holding company developing treatments and diagnostics for diseases in the areas of neurology, regenerative medicine and orphan diseases through our subsidiaries. The Company's new Hemp-focused business plan via wholly-owned subsidiary Hemp BioHealth, Inc. to focus on neurological applications for inhalable non-psychoactive cannabinoid products, and our biotechnology portfolio which consists of Engineered Skin Substitute (autologous full thickness skin grating), MANF (neurotrophic factor protein for ophthalmology and Parkinson's), PhenoGuard (neurotrophic factor discovery platform), eltoprazine (serotonin agonist for CNS disorders, including Parkinson's levodopa induced dyskinesia), TBIA (blood tests for cancers), LymPro Test (Alzheimer's blood test), NuroPro (blood test for Parkinson's) and Theralink (tumor biopsy phosphoprotein biomarker platform for cancer drug selection) are being developed by technology-focused subsidiaries. The subsidiary portfolio consists of wholly-owned subsidiaries and partially-owned subsidiaries:

Wholly-owned subsidiaries

- (i) **Cutanogen Corporation** that is preparing to initiate a potentially pivotal clinical development program for the autologous, full thickness skin grafting program Engineered Skin Substitute ("ESS") for the treatment of large, life-threatening pediatric severe burns, with significant additional potential applications in the treatment of critical care and cosmetic-related applications;
- (ii) **MANF Therapeutics, Inc.** that is developing the pre-clinical stage protein drug candidate mesencephalic astrocyte-derived neurotrophic factor ("MANF") for the treatment of vision loss associated with the rare genetic condition Wolfram's Syndrome, as well as the treatment of other vision-related disorders such as retinitis pigmentosa, glaucoma and macular degeneration. Additionally, MANF has potential applications in the treatment of Parkinson's disease, diabetes and several other conditions;
- (iii) AMBS Operations LLC is setup to manage the assets of Amaranthus Bioscience Holdings, Inc.
- (iv) Hemp BioHealth, LLC that is seeking to develop inhalable non-psychoactive cannabinoid products for nicotine smoking cessation (cigarettes and e-cigarettes/vapes) and other CNS-related disorders;

Partially-owned subsidiaries

- (v) 15% ownership in **Todos Medical Ltd.** (based in Israel, NASDAQ: TOMD) that is developing the TBIA cancer blood testing platform focused on the early detection of breast cancer, colon cancer and lung cancer as well as the Alzheimer's blood diagnostic LymPro Test® as a pre-symptomatic blood test for Alzheimer's disease, as well as potentially for the early diagnosis of Chronic Traumatic Encephalopathy;
- (vi) 50% ownership in **Elto Pharma, Inc.** that is preparing to initiate a Phase 2b clinical trial for the small molecule drug candidate eltoprazine for the treatment of Parkinson's disease levodopa-induced dyskinesia (PD-LID), with additional potential applications for the treatment of agitation in Alzheimer's disease and adult attention deficit and hyperactivity disorder (adult ADHD);
- (vii) 32.4% common stock ownership in Avant Diagnostics, Inc. (OTCPK: AVDX) that is commercializing the phosphoprotein tumor analysis platform Theralink® to improve diagnosis and treatment response rates across all cancers.

Our Strategy

The Company's business plan for the next 12 months is to focus on value creation in the Company's biotechnology subsidiary holdings by way of strategic transactions and fund raisings, and evaluate entry into the hemp-based inhalable targeting nicotine (cigarette and e-cigarettes/vapes) smoking cessation.

The Offering

Common Stock we are offering	Maximum offering between 2,000,000,000 shares at a price of \$0.01 per share and 20,000,000 shares at a price of \$1.00 per share
Common Stock outstanding before this Offering	269,920,256
Use of proceeds	The funds raised per this offering will be utilized for working capital, launch of first hemp-based product line via Joint Venture with The Alchemist's Kitchen, retirement of securities, discounted trade payables and certain other obligations of the Company.
Risk Factors	See "Risk Factors" and other information appearing elsewhere in this Offering Circular for a discussion of factors you should carefully consider before deciding whether to invest in our common stock.

This offering is being made on a self-underwritten basis without the use of an exclusive placement agent, although the Company may choose to engage a placement agent at its sole discretion. As there is no minimum offering, upon the approval of any subscription to this Offering Circular, the Company shall immediately deposit said proceeds into the bank account of the Company and may dispose of the proceeds in accordance with the Use of Proceeds.

Management will make its best effort to fill the subscription in the state of New York and with non-US investors. However, in the event that management is unsuccessful in raising the required funds in New York or with non-US investors, the Company may file a post qualification amendment to include additional jurisdictions that management has determined to be in the best interest of the Company for the purpose of raising the maximum offer.

In the event that the Offering Circular is fully subscribed, any additional subscriptions shall be rejected and returned to the subscribing party along with any funds received.

In order to subscribe to purchase the shares, a prospective investor must complete a subscription agreement and send payment by check, wire transfer or ACH. Investors must answer certain questions to determine compliance with the investment limitation set forth in Regulation A Rule 251(d)(2)(i)(C) under the Securities Act of 1933, which states that in offerings such as this one, where the securities will not be listed on a registered national securities exchange upon qualification, the aggregate purchase price to be paid by the investor for the securities cannot exceed 10% of the greater of the investor's annual income or net worth. In the case of an investor who is not a natural person, revenues or net assets for the investors' most recently completed fiscal year are used instead.

The Company has not yet engaged any party for the public relations or promotion of this offering.

As of the date of this filing, there are no additional offers for shares, nor any options, warrants, or other rights for the issuance of additional shares except those described herein.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider each of the following risks, together with all other information set forth in this Offering Circular, including the consolidated financial statements and the related notes, before making a decision to buy our common stock. If any of the following risks actually occurs, our business could be harmed. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment.

This offering contains forward-looking statements. Forward-looking statements relate to future events or our future financial performance. We generally identify forward-looking statements by terminology such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these terms or other similar words. These statements are only predictions. The outcome of the events described in these forward-looking statements is subject to known and unknown risks, uncertainties and other factors that may cause our customers’ or our industry’s actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” as well as other sections in this prospectus, discuss the important factors that could contribute to these differences.

The forward-looking statements made in this prospectus relate only to events as of the date on which the statements are made. 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.

This prospectus also contains market data related to our business and industry. This market data includes projections that are based on a number of assumptions. If these assumptions turn out to be incorrect, actual results may differ from the projections based on these assumptions. As a result, our markets may not grow at the rates projected by these data, or at all. The failure of these markets to grow at these projected rates may have a material adverse effect on our business, results of operations, financial condition and the market price of our common stock.

Risk Related to our Company and our Business

Our management has a limited experience operating a public company and are subject to the risks commonly encountered by early-stage companies.

Although the management of Amarantus Bioscience Holdings, Inc. has experience in operating small companies, current management has not had to manage expansion while being a public company. We are an early-stage drug development company. In addition, management has not overseen a company with large growth. Because we have a limited operating history, our operating prospects should be considered in light of the risks and uncertainties frequently encountered by early-stage companies in rapidly evolving markets. These risks include:

- risks that we may not have sufficient capital to achieve our growth strategy;
- risks that we may not develop our product and service offerings in a manner that enables us to be profitable and meet our customers’ requirements;
- risks that our growth strategy may not be successful; and
- risks that fluctuations in our operating results will be significant relative to our revenues.

These risks are described in more detail below. Our future growth will depend substantially on our ability to address these and the other risks described in this section. If we do not successfully address these risks, our business would be significantly harmed.

Our strategy is to identify, acquire, and develop pre-clinical and clinical drugs with the intent of building a portfolio that is monetized by selling each drug, or subsidiary, to a larger competitor or spinning off each or a combination of drug candidates into a separately listed company with an independent management team and board of directors.

Our strategy is to identify, acquire, and develop new potential drug and diagnostic candidates with the objective of advancing each drug or diagnostic through to a significant value inflection milestone, whether that be 1) commercialization 2) a sale to a third-party, or 3) a spinoff as separate and independent public listing for one or more of our subsidiaries, or a combination of 2) and 3). This strategy entails a high level of risk and uncertainty and is dependent upon:

- Our ability to identify and acquire valuable drug and diagnostic candidates at an attractive price that have a high probability of making it through clinical trials;
- Our ability to sufficiently finance each candidate so that the underlying value of the product is increased overtime as it progresses through its clinical trials;
- Our ability to access the capital markets to finance the parent company's operations;
- Our ability to identify a buyer of the candidate or publicly-list each candidate as an independent company;
- Our ability to identify and hire independent management teams to manage and operate each company.

We have a history of operating losses and we will need additional financing to meet our future long-term capital requirements.

We have a history of losses and may continue to incur operating and net losses for the foreseeable future. As of June 30, 2019, we had a working capital deficit of \$30,002,923. We incurred a net loss of \$824,090 for the period ended June 30, 2019, and a net loss of \$3,470,802 for the six months ended June 30, 2018. We have not achieved sustainable profitability on an annual basis. We may not be able to reach a level of revenue to achieve profitability. If our revenues grow slower than anticipated, or if operating expenses exceed expectations, then we may not be able to achieve profitability in the near future or at all, which may depress our stock price.

We have established a Special Purpose Vehicle ("SPV") that is managed by a third-party who is liquidating our previous debt into common shares

We are establishing a Special Purpose Vehicle ("SPV"), which is being managed by a third-party administrator for the purpose of liquidating our previous debt of approximately \$16,000,000. Under the terms of the agreement, one quarter of the total amount will be liquidated in four equal installments per quarter at the current market price of our shares on each trading day with the total amount not to exceed five percent (5.0%) of our daily volume. As such, there will be significant amount of shares and dilution for our shareholders.

We may need significant additional capital, which we may be unable to obtain

We may need to obtain additional financing over time to fund operations. Our management cannot predict the extent to which we will require additional financing and can provide no assurance that additional financing will be available on favorable terms or at all. The rights of the holders of any debt or equity that may be issued in the future could be senior to the rights of common shareholders, and any future issuance of equity could result in the dilution of our common shareholders' proportionate equity interests in our company. Failure to obtain financing or an inability to obtain financing on unattractive terms could have a material adverse effect on our business, prospects, results of operation and financial condition.

Our resources may not be sufficient to manage our potential growth; failure to properly manage our potential growth would be detrimental to our business.

We may fail to adequately manage our potential future growth. Any growth in our operations will place a significant strain on our administrative, financial and operational resources, and increase demands on our management and on our operational and administrative systems, controls and other resources. We cannot assure you that our existing personnel, systems, procedures or controls will be adequate to support our operations in the future or that we will be able to successfully implement appropriate measures consistent with our growth strategy. As part of this growth, we may have to implement new operational and financial systems, procedures and controls to expand, train and manage our employee base, and maintain close coordination among our technical, accounting, finance, marketing and sales staff. We cannot guarantee that we will be able to do so, or that if we are able to do so, we will be able to effectively integrate them into our existing staff and systems. To the extent we acquire businesses, we will also need to integrate and assimilate new operations, technologies and personnel. If we are unable to manage growth effectively, such as if our sales and marketing efforts exceed our capacity to install, maintain and service our products or if new employees are unable to achieve performance levels, our business, operating results and financial condition could be materially and adversely affected.

Our financial situation creates doubt whether we will continue as a going concern

Since inception, the Company has not generated revenues and has incurred losses and reported losses for the period from inception through June 30, 2019. Further, we expect to incur a net loss for the fiscal year ending December 31, 2019, primarily as a result of increased operating expenses. There can be no assurances that we will be able to achieve a level of revenues adequate to generate sufficient cash flow from operations or obtain additional financing through private placements, public offerings and/or bank financing necessary to support our working capital requirements. To the extent that funds generated from any private placements, public offerings and/or bank financing are insufficient, we will have to raise additional working capital. No assurance can be given that additional financing will be available, or if available, will be on acceptable terms. These conditions raise substantial doubt about our ability to continue as a going concern. If adequate working capital is not available we may be forced to discontinue operations, which would cause investors to lose their entire investment. Our auditors have indicated that these conditions raise substantial doubt about the Company's ability to continue as a going concern

We will need to increase the size of our organization, and we may be unable to manage rapid growth effectively.

Our failure to manage growth effectively could have a material and adverse effect on our business, results of operations and financial condition. We anticipate that a period of significant growth will be required to address possible divestitures of business, products, or rights, in our portfolio and potential internal growth to handle licensing and research activities. This expansion will place a significant strain on management, operational and financial resources. To manage the expected growth of our operations and personnel, we must both improve our existing operational and financial systems, procedures and controls and implement new systems, procedures and controls. We must also expand our finance, administrative, and operations staff. Our current personnel, systems, procedures and controls may not adequately support future operations. Management may be unable to hire, train, retain, motivate and manage necessary personnel or to identify, manage and exploit existing and potential strategic relationships and market opportunities.

We are dependent on the continued services and performance of our senior management, the loss of any of whom could adversely affect our business, operating results and financial condition.

Our future performance depends on the continued services and continuing contributions of our senior management to execute our business plan, and to identify and pursue new opportunities and transactions. The loss of services of senior management, particularly Gerald Commissiong, Amarantus Bioscience Holdings, Inc. founder, could significantly delay or prevent the achievement of our strategic objectives. The loss of the services of senior management for any reason could adversely affect our business, prospects, financial condition and results of operations.

We, or our subsidiaries, may become subject to claims of infringement or misappropriation of the intellectual property rights of others, which could prohibit us from developing our products, require us to obtain licenses from third parties or to develop non-infringing alternatives and subject us to substantial monetary damages.

Third parties could, in the future, assert infringement or misappropriation claims against us with respect to products we develop. Whether a product infringes a patent or misappropriates other intellectual property involves complex legal and factual issues, the determination of which is often uncertain. Therefore, we cannot be certain that we have not infringed the intellectual property rights of others. Our potential competitors may assert that some aspect of our product infringes their patents. Because patent applications may take years to issue, there also may be applications now pending of which we are unaware that may later result in issued patents upon which our products could infringe. There also may be existing patents or pending patent applications of which we are unaware upon which our products may inadvertently infringe.

Any infringement or misappropriation claim could cause us to incur significant costs, place significant strain on our financial resources, divert management's attention from our business and harm our reputation. If the relevant patents in such claim were upheld as valid and enforceable and we were found to infringe them, we could be prohibited from selling any product that is found to infringe unless we could obtain licenses to use the technology covered by the patent or are able to design around the patent. We may be unable to obtain such a license on terms acceptable to us, if at all, and we may not be able to redesign our products to avoid infringement. A court could also order us to pay compensatory damages for such infringement, plus prejudgment interest and could, in addition, treble the compensatory damages and award attorney fees. These damages could be substantial and could harm our reputation, business, financial condition and operating results. A court also could enter orders that temporarily, preliminarily or permanently enjoin us and our customers from making, using, or selling products, and could enter an order mandating that we undertake certain remedial activities. Depending on the nature of the relief ordered by the court, we could become liable for additional damages to third parties.

We may not be successful in the implementation of our business strategy or our business strategy may not be successful, either of which will impede our development and growth.

Our business strategy is to identify, acquire and develop molecules into successful drugs or medical technologies which inherently entails a high level of risk and failure, and then subsequently to divest or spin-off entities formed around those drugs or medical technologies. Our ability to implement this business strategy is dependent on our ability to:

- Fund and develop research on successful candidates for FDA approval as well as other medical regulatory bodies operating in other jurisdictions;
- Successfully identify and license, partner or sell the candidates that are making progress on achieving FDA approval on suitable terms;
- Distinguish ourselves in a very competitive market;
- Manage growth in administrative overhead costs during the initiation of our business efforts.

We do not know whether we will be able to continue successfully implementing our business strategy or whether our business strategy will ultimately be successful. In assessing our ability to meet these challenges, a potential investor should take into account our need for significant amounts of capital to fund our drug development programs in our subsidiaries, our management's relative inexperience, the competitive conditions existing in our industry and general economic conditions. Our growth is largely dependent on our ability to successfully implement our business strategy. Our revenues may be adversely affected if we fail to implement our business strategy or if we divert resources to a business that ultimately proves unsuccessful.

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 holding company, with certain subsidiaries preparing to launch late-stage trials and early commercialization. Currently, we, or our subsidiaries 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 Portfolio 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 Portfolio; and
- market acceptance of our Product Portfolio.

If our subsidiaries do not successfully develop, achieve regulatory approval, and commercialize their products, we will be unable to generate any revenue for many years, if at all. We do not anticipate that we will generate significant revenues for several years, at the earliest, or that we will achieve profitability for at least several years after generating material revenue, if at all. If we are unable to generate revenue, we will not become profitable, and we may be unable to continue our operations.

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

We currently do not have any products that are approved for commercial sale. To date, we have funded our operations primarily from grants and sales of our securities. We have not received, and do not expect to receive for at least the next several years any revenues from the commercialization of Eltoprazine, ESS, or our LymPro ®. To obtain revenues from sales of our future product candidates, if any, 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 must effectively manage the growth of our operations, or our company will suffer.

Our business consists of multiple drug candidates in various stages of development. The number of potential drug development programs in our operations has resulted in significantly higher operating expenses, which the net proceeds from this Offering, if any, are intended in part to offset. Expansion of our operations, to include the development of all our portfolio, may also cause a significant demand on our management, finances and other resources. Our ability to manage the anticipated future growth, should it occur, will depend upon a significant expansion of our accounting and other internal management systems and the implementation and subsequent improvement of a variety of systems, procedures and controls. In addition, we intend to expand the Board and to establish a scientific advisory board. There can be no assurance that significant problems in these areas will not occur. Any failure to expand these areas and implement and improve, procedures and controls in an efficient manner at a pace consistent with our business could have a material adverse effect on our business, financial condition and results of operations. There can be no assurance that our attempts to expand our marketing, sales, manufacturing and customer support efforts will be successful or will result in additional sales or profitability in any future period.

We have limited existing brand identity and customer loyalty; if we fail to market our brand to promote our service offerings, our business could suffer.

Because of limited commercialization of our subsidiary products, we currently do not have strong brand identity or brand loyalty. We believe that establishing and maintaining brand identity and brand loyalty is critical to attracting customers, potential buyers of our subsidiaries, once we have a viable products offered by our subsidiaries. In order to attract customers to our subsidiary products, we may be forced to spend substantial funds to create and maintain brand recognition among consumers. We believe that the cost of our marketing campaigns could increase substantially in the future. If our branding efforts are not successful, our ability to earn revenues by completing strong financial transactions for our subsidiaries and sustain our operations will be harmed.

A competitor with a stronger or more suitable financial position may enter our marketplace

The success of our business primarily depends on the success our candidates and its market performance, compared to a rival medical technology offered by a competitor. If a direct competitor arrives in our market, achieving market acceptance for our services may require additional marketing efforts and the expenditure of significant funds, the availability of which we cannot be assured, to create awareness and demand among customers. We have limited financial, personnel and other resources to undertake additional marketing activities. Accordingly, no assurance can be given that we will be able to win business from a stronger competitor.

Defects or errors in the trial stage could set back the success of our candidates, requiring further investment without a guaranteed outcome.

Our products may contain undetected defects or errors when placed into clinical trials, which could materially and adversely affect our reputation, result in significant costs to us and impair our ability to sell our products in the future. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating results.

Defects or errors in our products could harm our reputation, result in significant costs to us and impair our ability to sell our products, which would harm our operating results.

Our products may contain undetected defects or errors when first introduced to the market or as new versions are released, which could materially and adversely affect our reputation, result in significant costs to us and impair our ability to sell our products in the future. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating results.

Litigation may harm our business.

Substantial, complex or extended litigation could cause us to incur significant costs and distract our management. For example, lawsuits by employees, stockholders, collaborators, distributors, customers, competitors or others could be very costly and substantially disrupt our business. Disputes from time to time with such companies, organizations or individuals are not uncommon, and we cannot assure you that we will always be able to resolve such disputes or on terms favorable to us. Unexpected results could cause us to have financial exposure in these matters in excess of recorded reserves and insurance coverage, requiring us to provide additional reserves to address these liabilities, therefore impacting profits.

Risks Related to Our Product Candidates

We are substantially dependent on the success of our Product Portfolio, which may not receive regulatory approval or be successfully commercialized.

In the future, we hope our subsidiaries will submit Eltoprazin, MANF, and ESS as well as our diagnostics program, LymPro, Theralink and potentially other product candidates, for regulatory approval. Currently, however, none of these product candidates have been submitted for regulatory approval, which would be required before we seek to initiate commercial distribution. To date, we have invested nearly all of our resources in establishing our company and the acquisition of the intellectual property of our subsidiary product candidates. Our near-term prospects, including our ability to finance our company and to enter into strategic collaborations and, ultimately, to generate revenue, are directly dependent upon the successful development and commercialization of each product.

The development and commercial success of our subsidiary products will depend on a number of factors, including, without limitation, the following:

- timely initiation and successful completion of preclinical studies for MANF and clinical trials for ESS and Eltoprazine, and trials and regulatory CLIA/510(k) filings for LymPro and Theralink;
- demonstration to the satisfaction of the FDA, the EMA and other applicable regulatory authorities the safety and efficacy of our Product Portfolio as well as to obtain regulatory and marketing approval for our Product Portfolio in the U.S., Europe and elsewhere;

- continued compliance with all clinical and regulatory requirements applicable to our Product Portfolio;
- maintenance of an acceptable safety profile of our Product Portfolio following regulatory approval;
- competition with other treatments or diagnostics;
- creation, maintenance and protection of our intellectual property portfolio, including patents and trade secrets, and regulatory exclusivity for our Product Portfolio;
- effectiveness of our and our eventual partners' marketing, sales and distribution strategy and operations;
- ability of our third-party manufacturers to manufacture supplies of our product and product candidates and to develop, validate and maintain commercially viable manufacturing processes;
- ability to launch commercial sales of our Product Portfolio following regulatory approval, whether alone or in collaboration with others; and
- acceptance of our Product Portfolio from physicians, health care payers, patients and the medical community.

Many of these factors are beyond our control, and we cannot assure you that we will ever be able to generate sufficient revenue or any revenue from the sale from any of our products. Our failure in any of the above factors, or in successfully commercializing on a timely basis, could have a material adverse effect on our business, results of operations and financial condition, and the value of your investment could substantially decline.

Our Product Portfolio may not achieve market acceptance, which could limit our ability to generate revenue from new products.

Even if we develop our Product Portfolio and gain regulatory approvals for it, unless physicians and patients accept our product candidates, we may not be able to sell it and generate significant revenue. We cannot assure you that our Product Portfolio or any other potential products will achieve market acceptance and revenue if and when they obtain the requisite regulatory approvals. Market acceptance of any product candidate depends on a number of factors, including but not limited to:

- the indication and warnings approved by regulatory authorities in the product label;
- continued demonstration of efficacy and safety in commercial use;
- physicians' willingness to prescribe the product;
- reimbursement from third-party payors such as government health care systems and insurance companies;
- the price of the product;
- the nature of any post-approval risk management plans mandated by regulatory authorities;
- competition; and
- the effectiveness of marketing and distribution support.

Any failure by our Product Portfolio to achieve market acceptance or commercial success could have a material adverse effect on our business, results of operations and financial condition.

Problems in our manufacturing process, failure to comply with manufacturing regulations or unexpected increases in our manufacturing costs could harm our business, results of operations and financial condition.

We are responsible for the manufacture and supply of some of our drug candidates in our Product Portfolio. The manufacturing of any of our drug candidates our Product Portfolio necessitates compliance with US FDA, EU EMA and international current Good Manufacturing Practice (“cGMP”) and other international regulatory requirements. Although we may in the future contract with third parties for a certain amount of the manufacturing of all or parts of our Product Portfolio, the responsibility to obtain market authorization for our Product Portfolio remains with us. As such, even if we could potentially have a claim against one or more third parties, we are legally liable for any noncompliance related to our Product Portfolio and we expect to retain legal responsibility for any future product candidates as well.

If we are unable to manufacture, or contract to manufacture, our Product Portfolio in accordance with regulatory specifications, or if there are disruptions in the manufacturing process due to damage, loss or failure to pass regulatory inspections of manufacturing facilities, we may not be able to meet the demand for our products or supply sufficient product for use in clinical trials, and this may harm our ability to commercialize all or parts of our Product Portfolio on a timely or cost-competitive basis, or preclude us from doing so at all.

Before we can begin commercial manufacture of any potential candidates in our Product Portfolio or any other product candidate that we may develop in the future for sale in the U.S., we must obtain FDA regulatory approval for the product, which requires a successful FDA inspection of our manufacturing facilities, processes and quality systems in addition to other product-related approvals. Even if we successfully pass an FDA Pre-Approval Inspection of any manufacturing facilities we may establish or contract with, our pharmaceutical facilities would be continuously subject to inspection by the FDA and foreign regulatory authorities, even after product approval. Due to the complexity of the processes that we anticipate will eventually be used to manufacture any or all of the potential candidates in our product portfolio, we may be unable to pass federal, state or international regulatory inspections in a cost-effective manner, whether initially on at any time thereafter. If we are unable to comply with manufacturing regulations, we may be subject to fines, unanticipated compliance expenses, recall or seizure of any approved products, or legal actions such as injunctions or criminal or civil prosecution. These possible sanctions could materially and adversely affect our business, results of operations and financial condition. See also “Risks Related to Development and Regulatory Approval of Our Product.” The regulatory approval process is uncertain, requires us to utilize significant resources, and may prevent us or our commercial partners from obtaining approvals for the commercialization of some or all of our drug candidates.”

We expect to face substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully than, we do.

The development and commercialization of new therapy products are highly competitive. We will face competition with respect to all potential candidates in our Product Portfolio and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. In addition to existing therapeutic treatments for the indications we are targeting with our Product Portfolio, we also face potential competition from other drug candidates in development by other companies. Our potential competitors include large health care companies, such as Lundbeck, Johnson & Johnson, Merck & Co., Inc., Sanofi S.A., Eli Lilly and Company, Bayer AG, Novartis AG and Boehringer Ingelheim GmbH. We also know of several smaller early stage companies that are developing products for use in our segment of the market. Some of the potential competitive compounds referred to above are being developed by large, well-financed and experienced pharmaceutical and biotechnology companies or have been partnered with such companies, which may give them development, regulatory and marketing advantages over our products.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payers seeking to encourage the use of generic products. If our Product Portfolio achieves marketing approval, we expect that it will be priced at a significant premium over competing generic products.

Some of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are unable to compete successfully, we may be unable to grow and sustain our revenue, which could materially and adversely affect our business, results of operations and financial condition.

Serious adverse events or other safety risks could require us to abandon development and preclude, delay or limit approval of our Product Portfolio, or limit the scope of any approved label or market acceptance.

If our Product Portfolio or any other product candidate that we may develop in the future, prior to or after any approval for commercial sale, causes serious or unexpected side effects, or become associated with other safety risks such as misuse, abuse or diversion, a number of potentially significant negative consequences could result, including, without limitation:

- regulatory authorities may interrupt, delay or halt clinical trials;
- regulatory authorities may deny regulatory approval of our Product Portfolio;
- regulatory authorities may require certain labeling statements, such as warnings or contraindications or limitations on the indications for use, or impose restrictions on distribution in the form of a Risk Evaluation and Mitigation Strategy (“REMS”), in connection with approval, if any;
- regulatory authorities may withdraw their approval, require more onerous labeling statements or impose a more restrictive REMS of any product that is approved;
- we may be required to change the way the product is administered or conduct additional clinical trials;
- any relationships that we may be able to form in the future with any commercial partners may suffer;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

We may voluntarily suspend or terminate our clinical trials if at any time we believe that they present an unacceptable risk to participants or if preliminary data demonstrate that our Product Portfolio is unlikely to receive regulatory approval or is unlikely to be successfully commercialized. In addition, regulatory agencies, an Institutional Review Board (“IRB”), or data safety monitoring boards may at any time recommend the temporary or permanent discontinuation of our clinical trials or request that we cease using investigators in the clinical trials if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements, or that they present an unacceptable safety risk to participants. If we elect or are ever forced to suspend or terminate a clinical trial of our Product Portfolio or any other product candidate that we may in the future develop, the commercial prospects for that product will be harmed and our ability to generate product revenue from that product may be delayed or eliminated. Furthermore, any of these events could prevent us or our partners from achieving or maintaining market acceptance of the affected product and could substantially increase the costs of commercializing our Product Portfolio and materially impair our ability to generate revenue from the commercialization of our Product Portfolio either by us or by any commercial partners that we may develop a relationship with in the future and could have a material adverse effect on our reputation, business, results of operations and financial condition.

If we fail to obtain and sustain an adequate level of reimbursement for our products by third-party payers, sales and profitability will be adversely affected.

The course of medical treatment for human patients is, and will continue to be, expensive. We expect that most patients and their families will not be capable of paying for our products themselves. Accordingly, it is unlikely that there will be a commercially viable market for our Product Portfolio without reimbursement from third-party payers. Additionally, even if there is a commercially viable market, if the level of third-party reimbursement is insufficient from the patient's perspective, our revenue and gross margins will be materially and adversely affected.

A current trend in the U.S. health care industry, as well as in other countries around the world, is toward cost containment. Large public and private payers, managed care organizations, group purchasing organizations and similar organizations are exerting increasing influence on decisions regarding the use of, and reimbursement levels for, particular treatments. Third-party payers, such as government programs, including Medicare in the U.S. and private health care insurers, carefully review and have increasingly been challenging the coverage of, and prices charged for, medical products and services. Many third-party payers limit coverage of or reimbursement for newly-approved health care products. Reimbursement rates from private health insurance companies vary depending on the company, the insurance plan and other factors. Cost-control initiatives could decrease the price we or our partners establish for products, which could result in lower product revenue and profitability.

Reimbursement systems in international markets vary significantly by country and by region, and reimbursement approvals must be obtained on a country-by-country basis. Our eventual partners may elect to reduce the price of our products in order to increase the likelihood of obtaining reimbursement approvals. In many countries, products cannot be commercially launched until reimbursement is approved and the negotiation process in some countries can exceed 12 months. In addition, pricing and reimbursement decisions in certain countries can be affected by decisions taken in other countries, which can lead to mandatory price reductions and/or additional reimbursement restrictions across a number of other countries, which may thereby adversely affect our sales and profitability. If countries set prices that are not sufficient to allow us or our partners to generate a profit, our partners may refuse to launch the product in such countries or withdraw the product from the market, which would adversely affect our sales and profitability and could materially and adversely affect our business, results of operations and financial condition.

We may not be successful in our efforts to expand our pipeline of product candidates.

One element of our strategy is to expand our pipeline of pharmaceuticals based on our technology and advance these product candidates through clinical development for the treatment of a variety of indications. Although our research and development efforts to date have resulted in a number of development programs based on our technology, we may not ultimately be able to develop product candidates that are safe and effective. Even if we are successful in continuing to expand our pipeline, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being shown to have harmful side effects or other characteristics that indicate that they are unlikely to receive marketing approval and achieve market acceptance. In addition, if we attempt to apply our technology to develop therapeutic product candidates for indications outside of primary indications, we may need to conduct genotoxicity and immunotoxicity trials, in which the results may be uncertain. If we do not successfully develop and commercialize product candidates based upon our technological approach, we will not be able to obtain product revenue in future periods, which would make it unlikely that we would ever achieve profitability.

Product recalls or inventory losses caused by unforeseen events, cold chain interruption and testing difficulties may adversely affect our operating results and financial condition.

Our Product Portfolio will be manufactured and distributed, if ever, using technically complex processes requiring specialized facilities, highly specific raw materials and other production constraints. The complexity of these processes, as well as the strict company and government standards for the manufacture of our products, will subject us to production risks. While product batches released for use in clinical trials or for commercialization undergo sample testing, some defects may only be identified following product release. In addition, process deviations or unanticipated effects of approved process changes may result in these intermediate products not complying with stability requirements or specifications. Most of our products must be stored and transported at temperatures within a certain range, which is known as "strict cold chain" storage and transportation. If these environmental conditions deviate, our products' remaining shelf lives could be impaired, or their efficacy and safety could become adversely affected, making them no longer suitable for use. The occurrence or suspected occurrence of production and distribution difficulties can lead to lost inventories, and in some cases product recalls, with consequential reputational damage and the risk of product liability. The investigation and remediation of any identified problems can cause production delays, substantial expense, lost sales and delays of new product launches, any of which could have a material adverse effect on our business, results of operations and financial condition.

Risks Related to Development and Regulatory Approval of Our Product

There is a high rate of failure for drug candidates proceeding through clinical trials.

Generally speaking, there is a high rate of failure for drug candidates proceeding through clinical trials. We may suffer significant setbacks in our clinical trials similar to the experience of a number of other companies in the pharmaceutical and biotechnology industries, even after receiving promising results in earlier trials. Further, even if we view the results of a clinical trial to be positive, the FDA or other regulatory authorities may disagree with our interpretation of the data. For instance, because a large percentage of subjects in our pivotal trials for our Product Portfolio may be enrolled at sites outside the U.S., differences in efficacy results between U.S. and non-U.S. sites could cause the FDA to require additional trials. In the event that:

- we obtain negative results from our Product Portfolio that is in Phase I, Phase II, and Phase III trials and CLIA testing;
- the FDA places a clinical hold on our Phase I trials due to potential chemistry, manufacturing and controls issues or other hurdles, or
- the FDA does not approve our Biologics License Application (“BLA”) for our Product Portfolio, then:
 - o we may not be able to generate sufficient revenue or obtain financing to continue our operations;
 - o our ability to execute our current business plan will be materially impaired;
 - o our reputation in the industry and in the investment community would likely be significantly damaged, and
 - o the price of the Common Stock, assuming a trading market has then developed therefor, would likely decrease significantly.

Any of these results could materially and adversely affect our business, results of operations or financial condition.

Clinical trials for our Product Portfolio are expensive, time consuming, uncertain and susceptible to change, delay or termination.

Clinical trials are expensive, time consuming and difficult to design and implement. The result of a clinical trial may be undesirable and can result in a clinical trial cancellation or the need for re-evaluation and supplementation. Even if the results of our clinical trials are favorable, the clinical trials for our Product Portfolio are expected to continue for several years and may even take significantly longer to complete. In addition, we, the FDA, an IRB, or other regulatory authorities, including in the U.S., EU and elsewhere, may suspend, delay or terminate our clinical trials at any time, for various reasons, including:

- lack of effectiveness of any of our products in our Product Portfolio during clinical trials;

- discovery of serious or unexpected toxicities or side effects experienced by trial participants or other safety issues;
- slower than expected rates of subject recruitment and enrollment rates in clinical trials;
- difficulty in retaining subjects who have initiated a clinical trial but may have withdrawn due to adverse side effects from the therapy, insufficient efficacy, fatigue with the clinical trial process or for any other reason;
- delays or inability in manufacturing or obtaining sufficient quantities of materials for use in clinical trials due to manufacturing or regulatory constraints;
- inadequacy of or changes in our manufacturing process or product formulation;
- delays in obtaining regulatory authorization to commence a trial, including experiencing “clinical holds” or delays requiring suspension or termination of a trial by a regulatory agency, such as the FDA, before or after a trial is commenced;
- changes in applicable regulatory policies and regulations;
- delays or failure in reaching agreement on acceptable terms in clinical trial contracts or protocols with prospective clinical trial sites;
- delay or failure to supply product for use in clinical trials which conforms to regulatory specification;
- unfavorable results from ongoing pre-clinical studies and clinical trials;
- failure of any contract research organizations (“CROs”) that we may partner with in the future, or other third-party contractors, to comply with all contractual requirements or to perform their services in a timely or acceptable manner;
- failure by us, our employees, any CROs or their employees to comply with all applicable FDA or other regulatory requirements relating to the conduct of clinical trials;
- scheduling conflicts with participating clinicians and clinical institutions;
- failure to design appropriate clinical trial protocols; or
- regulatory concerns with pharmaceutical products generally and the potential for abuse.

Any of the foregoing could have a material adverse effect on our business, results of operations and financial condition.

The regulatory approval process is uncertain, requires us to utilize significant resources, and may prevent us or our commercial partners from obtaining approvals for the commercialization of our Product Portfolio.

The research, testing, manufacturing, labeling, approval, sale, marketing and testing of our Product Portfolio are subject to extensive regulation by regulatory authorities in the U.S. and Europe, and regulatory requirements applicable to our product differ from country to country. Neither we nor any commercial partner is permitted to market any of our current or future product candidates in the U.S. until we receive approval from the FDA of a BLA. Obtaining approval of a BLA can be an uncertain process that requires us to utilize significant resources. Furthermore, regulatory authorities possess broad discretion regarding processing time and usually request additional information and raise questions which have to be answered. There is considerable uncertainty regarding the times at which products may be approved. In addition, failure to comply with FDA and other applicable U.S. and foreign regulatory requirements may subject us to administrative or judicially imposed sanctions, including: warning letters, civil and criminal penalties, injunctions, withdrawal of approved products from the market, product seizure or detention, product recalls, total or partial suspension of production, and refusal to approve pending applications or supplements to approved applications.

The process required by the FDA and most foreign regulatory authorities before human health care pharmaceuticals may be marketed generally involves nonclinical laboratory and, in some cases, animal tests; submission of an Investigational New Drug (“IND”) application, which must become effective before clinical trials may begin; adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug for its intended use or uses; pre-approval inspection of manufacturing facilities and clinical trial sites; and FDA approval of a BLA, which must occur before a drug can be marketed or sold.

Regulatory approval of a BLA, or any supplement thereof, is not guaranteed, and the approval process requires us to utilize significant resources, could take several years, and is subject to the substantial discretion of the FDA. Despite the time and expense exerted, failure can occur at any stage, and we could encounter problems that cause us to abandon or have to repeat or perform additional studies. If our product or any of our future product candidates fails to demonstrate safety and efficacy in our studies, or for any other reason does not gain regulatory approval, our business and results of operations will be materially and adversely harmed.

In addition, separate regulatory approvals are required in order to market any product in many jurisdictions, including the U.S., the European Economic Area, which consists of the 28 Member States of the European Union plus Norway, Iceland and Liechtenstein, and many others. Approval procedures vary among countries and can involve additional studies and testing, and the time required to obtain approval may differ from that required to obtain FDA approval. Studies conducted in one country may not be accepted by regulatory authorities in other countries. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one or more foreign regulatory authorities does not ensure approval by regulatory authorities in other foreign countries or by the FDA. However, a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval. We may be unable to file for regulatory approvals or do so on a timely basis and, even if we are able to, we may not receive necessary approvals to commercialize our products in any market. Any of these results could have a material adverse effect on our business, results of operations and financial condition.

Even if we receive regulatory approval for any of our future product candidates, we will be subject to ongoing FDA and other regulatory body obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product and any product candidates, if any, if approved, will be subject to labeling and manufacturing requirements and could be subject to other restrictions. Failure to comply with these regulatory requirements or the occurrence of unanticipated problems with our products could result in significant penalties.

Any regulatory approvals that we or any of our collaborators receive for our Product Portfolio or any future product candidate may be subject to conditions of approval or limitations on the approved indicated uses for which the product may be marketed or may contain requirements for potentially costly surveillance to monitor the safety and efficacy of the product candidate. In addition, our Product Portfolio and any of our future product candidates, if approved by the FDA or other regulatory bodies, will be subject to extensive and ongoing regulatory requirements regarding the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping. These requirements will include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP, Good Laboratory Practice and Good Clinical Practice for any studies that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, warning letters or holds on target studies;

- refusal by the FDA or other applicable regulatory body to approve pending applications or supplements to approved applications filed by us or our strategic collaborators, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The policies of the FDA and other regulatory bodies may change, and additional government regulations may be promulgated that could prevent, limit or delay regulatory approval of our Product Portfolio. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the U.S. or elsewhere. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, and we may not achieve or sustain profitability, which would materially and adversely affect our business, results of operations and financial condition.

Our Product Portfolio and any of our future product candidates, if approved, may cause or contribute to adverse medical events that we are required to report to the FDA and regulatory authorities in other countries and, if we fail to do so, we could be subject to sanctions that would materially harm our business.

If we are successful in commercializing our Product Portfolio and any of our future product candidates, regulations of the FDA and of the regulatory authorities in other countries require that we report certain information about adverse medical events if those products may have caused or contributed to those adverse events. The timing of our obligation to report would be triggered by the date we become aware of the adverse event as well as the nature of the event. We may fail to report adverse events we become aware of within the prescribed timeframe. We may also fail to appreciate that we have become aware of a reportable adverse event, especially if it is not reported to us as an adverse event or if it is an adverse event that is unexpected or removed in time from the use of our products. If we fail to comply with our reporting obligations, the FDA and regulatory authorities in other countries could take action including criminal prosecution, the imposition of civil monetary penalties, seizure of our products, or delay in approval or clearance of future products, which could have a material adverse effect on our business, results of operations and financial condition.

Legislative or regulatory reforms with respect to products may make it more difficult and costly for us to obtain regulatory clearance or approval of our Product Portfolio or any of our future product candidates and to produce, market, and distribute our products after clearance or approval is obtained.

From time to time, legislation is drafted and introduced in the U.S. Congress and lawmaking bodies in other countries that could significantly change the statutory provisions governing the testing, regulatory clearance or approval, manufacture, and marketing of regulated products. In addition, FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Similar changes in laws or regulations can occur in other countries. Any new regulations or revisions or reinterpretations of existing regulations in the U.S. or in other countries may impose additional costs or lengthen review times of our Product Portfolio and any of our future product candidates. We cannot determine what effect changes in regulations, statutes, legal interpretation or policies, when and if promulgated, enacted or adopted may have on our business in the future. Such changes could, among other things, require:

- requests for additional endpoints or studies;
- changes to manufacturing methods;
- recall, replacement, or discontinuance of certain products; and
- additional record keeping.

Each of these would likely entail substantial time and cost and could have a material adverse effect on our financial results. In addition, delays in receipt of or failure to receive regulatory clearances or approvals for any future products could materially and adversely affect our business, results of operations and financial condition.

Our ability to market our Product Portfolio and any future product candidates in the U.S., if approved, will be limited to use for the treatment of the indications for which they are approved, and if we want to expand the indications for which we may market our Product Portfolio and any future product candidates, we will need to obtain additional FDA approvals, which may not be granted.

We plan to seek full FDA approval in the U.S. for our Product Portfolio to treat. If any products in our Product Portfolio is approved, the FDA will restrict our ability to market or advertise it for the treatment of indications other than the indication for which it is approved, which could limit its use. If we decide to attempt to develop, promote and commercialize new treatment indications and protocols for product candidates in the future, we could not predict when, or if, we would ever receive the approvals required to do so. We would be required to conduct additional studies to support such applications for additional use, which would consume additional resources and may produce results that do not result in FDA approvals. If we do not obtain additional FDA approvals, our ability to expand our business in the U.S. would be adversely affected, which could materially and adversely affect our business, results of operations and financial condition.

The anticipated development of a REMS for our Product Portfolio could cause delays in the approval process and would add additional layers of regulatory requirements that could impact our ability to commercialize our Product Portfolio in the U.S. and reduce their market potential.

As a condition of approval of a BLA, the FDA may require a REMS to ensure that the benefits of the drug outweigh the potential risks. REMS elements can include medication guides, communication plans for health care professionals, and elements to assure safe use (“ETASU”). ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the drug’s safety or efficacy. We may be required to adopt a REMS for our Product Portfolio to ensure that the benefits outweigh the risks of abuse, misuse, diversion and other potential safety concerns. Even if the risk of abuse, misuse or diversion are not as high as for some other products, there can be no assurance that the FDA will approve a manageable REMS for our Product Portfolio, which could create material and significant limits on our ability to successfully commercialize our Product Portfolio in the U.S. Delays in the REMS approval process could result in delays in the BLA approval process. In addition, as part of the REMS, the FDA could require significant restrictions, such as restrictions on the prescription, distribution and patient use of the product, which could significantly impact our ability to effectively commercialize our Product Portfolio, and dramatically reduce their market potential thereby adversely impacting our business, financial condition and results of operations. Even if initial REMS are not highly restrictive, if, after launch, our Product Portfolio candidates were to be subject to significant abuse/non-medical use or diversion from licit channels, this could lead to negative regulatory consequences, including a more restrictive REMS, which could materially and adversely affect our business, results of operations and financial condition.

If we are found in violation of “fraud and abuse” laws, we may be required to pay a penalty and/or be suspended from participation in government-run health care programs, which may adversely affect our business, financial condition and results of operations.

If we are successful in obtaining marketing approval for our products in the U.S. and elsewhere, we will be subject to various health care “fraud and abuse” laws, including anti-kickback laws, false claims laws and other laws intended to reduce fraud and abuse in government-run health care programs, which could affect us, particularly upon successful commercialization of our products in the U.S. For example, the Medicare and Medicaid Patient Protection Act of 1987 (otherwise known as the federal “**Anti-Kickback Statute**”) makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf), to knowingly and willfully solicit, receive, offer or pay any remuneration that is intended to induce the referral of business, including the purchase, order or prescription of a particular drug for which payment may be made under a U.S. health care program such as Medicare or Medicaid. Under U.S. federal government regulations, some arrangements, known as safe harbors, are deemed not to violate the Anti-Kickback Statute. Although we intend to seek to structure our business arrangements in compliance with all applicable requirements, these laws are broadly written, and it is often difficult to determine precisely how the law will be applied in specific circumstances. Accordingly, it is possible that our practices may be challenged under the Anti-Kickback Statute and similar laws in other jurisdictions. False claims laws prohibit anyone from knowingly and willfully presenting or causing to be presented for payment to third-party payers, including government payers, reimbursement claims for drugs or services that are false or fraudulent, claims for items or services that were not provided as claimed, or claims for medically unnecessary items or services. Cases have been brought under false claims laws alleging that off-label promotion of pharmaceutical products or the payment of kickbacks to pharmaceutical providers has resulted in the submission of false claims to governmental health care programs. Under laws such as the Health Insurance Portability and Accountability Act of 1996 in the U.S., we are prohibited from knowingly and willfully executing a scheme to defraud any health care benefit program, including private payers, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and/or exclusion or suspension from government-run health care programs such as Medicare and Medicaid and debarment from contracting with the U.S. and other governments. In addition, in the U.S. individuals have the ability to bring actions on behalf of the government under the federal False Claims Act as well as under state false claims laws.

Many states in the U.S. have adopted laws similar to the Anti-Kickback Statute, some of which apply to the referral of patients for health care services reimbursed by any source, not just governmental payers. In addition, California and a few other states in the U.S. have passed laws that require pharmaceutical companies to comply with the April 2003 Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers and/or the Pharmaceutical Research and Manufacturers of America Code on Interactions with Health Care Professionals. In addition, several states impose other marketing restrictions or require pharmaceutical companies to make marketing or price disclosures to the state. There are ambiguities as to what is required to comply with these state requirements and if we fail to comply with an applicable state law requirement we could be subject to penalties.

We have yet to receive definitive guidance on the application of fraud and abuse laws to our business. Law enforcement authorities are increasingly focused on enforcing these laws, and it is possible that some of our future practices may be challenged under these laws. While we believe we will be able to structure our business arrangements to comply with these laws, it is possible that the government could in the future allege violations of, or convict us of violating, these laws. If we are found in violation of one of these laws, we could be required to pay a penalty and could be suspended or excluded from participation in certain government-run health care programs, and our business, results of operations and financial condition may be materially and adversely affected.

Risks Related to Our Business and Industry

If we fail to attract and keep senior management and key scientific personnel, we may be unable to successfully develop our Product Portfolio or any future product candidates, conduct our in-licensing and development efforts or commercialize our Product Portfolio or any of our future product candidates.

Our future growth and success depends in part on our continued ability to attract, retain and motivate highly qualified management and scientific personnel. We are highly dependent upon our senior management, particularly Gerald Commissiong, our Chief Executive Officer, as well as other members of our senior management team. The loss of services of any of these individuals could delay or prevent the successful development of our current or future product pipeline, completion of our planned development efforts or the commercialization of our Product Portfolio. Although we are negotiating these agreements, they do not provide for a fixed term of service and does not contain any competition or non-solicitation clauses after the termination of employment. It is possible that current or former employees of the Company could put forward claims for an alleged right to our patents and demand compensation therefor. If one or more of the key personnel were to leave us and engage in competing operations, our business, results of operations and financial condition could be materially and adversely affected. To date, none of our key personnel has left us or, to our knowledge, engaged in competing operations, nor has any departure of key personnel had any material effect on our company.

We may have trouble hiring additional qualified personnel.

As we expand our development and commercial activities, we will need to hire additional personnel and could experience difficulties attracting and retaining qualified employees. Competition for qualified personnel in the biopharmaceutical field is intense due to the limited number of individuals who possess the skills and experience required by that industry. We may not be able to attract and retain quality personnel on favorable terms, or at all. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that such personnel have been improperly solicited or that they have divulged proprietary or other confidential information, or that their former employers own their research output. Any of these difficulties could have a material adverse effect on our business, results of operations and financial condition.

We are subject to risks relating to legal proceedings.

We are subject to various claims and legal actions arising in the ordinary course of its business. Any such litigation could be very costly and could distract our management from focusing on operating our business. The existence of any such litigation could harm our business, results of operations and financial condition. Results of actual and potential litigation are inherently uncertain. An unfavorable result in a legal proceeding could adversely affect our reputation, financial condition and operating results.

If product liability lawsuits are successfully brought against us, we will incur substantial liabilities and may be required to limit the commercialization of our Product Portfolio.

We and our partners face potential product liability exposure related to the testing of our Product Portfolio in clinical trials. We will face exposure to claims by an even greater number of persons if we begin to market and distribute our products commercially in the U.S. and elsewhere, including those relating to misuse of any one of our products. Now, and in the future, an individual may bring a liability claim against us alleging that any one of our products caused an injury. While we intend to take what we believe to be appropriate precautions, we may be unable to avoid significant liability if any product liability lawsuit is brought against us. If we cannot successfully defend ourselves against product liability claims, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for our Product Portfolio, if such product candidate is approved;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs of related litigation;
- substantial monetary awards to patients and others;
- increased cost of liability insurance;
- loss of revenue; and
- our inability to successfully commercialize our products.

Furthermore, in the future there may be a need to expand the scope of our insurance coverage, which could result in significantly increased costs or the inability to obtain sufficient insurance coverage. Any of these occurrences could have a material adverse effect on our business, results of operations and financial condition.

Failure of our information technology systems could significantly disrupt the operation of our business.

Our ability to execute our business plan and to comply with regulatory requirements with respect to data control and data integrity depends, in part, on the continued and uninterrupted performance of our information technology systems (“IT systems”). These systems are vulnerable to damage from a variety of sources, including telecommunications or network failures, malicious human acts and natural disasters. Moreover, despite network security and back-up measures, some of our servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Despite the precautionary measures we have taken to prevent unanticipated problems that could affect our IT systems, there are no assurances that electronic break-ins, computer viruses and similar disruptive problems, and/or sustained or repeated system failures or problems arising during the upgrade of any of our IT systems that interrupt our ability to generate and maintain data will not occur. The occurrence of any of the foregoing with respect to our IT systems could have a material adverse effect on our business, results of operations or financial condition.

We will be subject to the U.S. Foreign Corrupt Practices Act and other anti-corruption laws, as well as export control laws, customs laws, sanctions laws and other laws governing our anticipated operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures, and legal expenses, which could adversely affect our business, results of operations and financial condition.

Our operations, if initiated, will be subject to certain anti-corruption laws, including the U.S. Foreign Corrupt Practices Act (“FCPA”), and other anti-corruption laws that apply in countries where we do business. The FCPA and other anti-corruption laws generally prohibit us and our employees and intermediaries from bribing, being bribed or making other prohibited payments to government officials or other persons to obtain or retain business or gain some other business advantage. We and our commercial partners operate in a number of jurisdictions that pose a high risk of potential FCPA violations and we participate in collaborations and relationships with third parties whose actions could potentially subject us to liability under the FCPA or local anti-corruption laws. In addition, we cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted.

We also anticipate becoming subject to other laws and regulations governing our international operations, including regulations administered in the U.S. and in the EU, including applicable export control regulations, economic sanctions on countries and persons, customs requirements and currency exchange regulations (collectively, “Trade Control Laws”).

There can be no assurance that we will be completely effective in ensuring our compliance with all applicable anticorruption laws, including the FCPA or other legal requirements, such as Trade Control Laws. Any investigation of potential violations of the FCPA, other anti-corruption laws or Trade Control Laws by U.S., EU or other authorities could have an adverse impact on our reputation, our business, results of operations and financial condition. Furthermore, should we be found not to be in compliance with the FCPA, other anti-corruption laws or Trade Control Laws, we may be subject to criminal and civil penalties, disgorgement and other sanctions and remedial measures, as well as the accompanying legal expenses, any of which could have a material adverse effect on our reputation and liquidity, as well as on our business, results of operations and financial condition.

Risks Related to Our Intellectual Property

We may be forced to litigate to enforce or defend our intellectual property rights, or the intellectual property rights of our licensors.

We may be forced to litigate to enforce or defend our intellectual property rights against infringement and unauthorized use by competitors. In so doing, we may place our intellectual property at risk of being invalidated, held unenforceable, or narrowed in scope. Further, an adverse result in any litigation or defense proceedings may place pending applications at risk of non-issuance. In addition, if any licensor fails to enforce or defend its intellectual property rights, this may adversely affect our ability to develop and commercialize our Product Portfolio as well as our ability to prevent competitors from making, using, and selling competing products. Any such litigation could be very costly and could distract our management from focusing on operating our business. The existence or outcome of any such litigation could harm our business, results of operations and financial condition.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential and proprietary information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of the Common Stock, should a market therefor ever develop.

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

We rely on trade secrets to protect our proprietary know-how and technological advances, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights. Failure to obtain or maintain trade secret protection or failure to adequately protect our intellectual property could enable competitors to develop generic products or use our proprietary information to develop other products that compete with our products or cause additional, material adverse effects upon our business, results of operations and financial condition.

The transfer of technology and knowledge to contract manufacturers pursuant to the production of our products also creates a risk of uncontrolled distribution and copying of concepts, methods and processes relating to our products. Such uncontrolled distribution and copying could have a material adverse effect on the value of our products if used for the production of competing drugs or otherwise used commercially without our obtaining financial compensation.

We may become subject to third parties' claims alleging infringement of patents and proprietary rights or seeking to invalidate our patents or proprietary rights, which would be costly, time-consuming and, if successfully asserted against us, delay or prevent the development and commercialization of our Product Portfolio.

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical industry, as well as patent challenge proceedings, including interference and administrative law proceedings before the U.S. Patent and Trademark Office ("USPTO") and the European Patent Office ("EPO"), and oppositions and other comparable proceedings in other jurisdictions. Recently, under U.S. patent reform laws, new procedures including inter partes review and post grant review have been implemented. As stated below, the novel implementation of such reform laws presents uncertainty regarding the outcome of challenges to our patents in the future.

We cannot assure you that our Product Portfolio or any of our future product candidates will not infringe existing or future patents. We may be unaware of patents that have already issued that a third party might assert are infringed by our Product Portfolio or one of our future product candidates. Because patent applications can take many years to issue and may be confidential for eighteen months or more after filing, there may be applications now pending of which we are unaware, and which may later result in issued patents that we may infringe by commercializing our Product Portfolio or any of our future product candidates. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Moreover, we may face claims from non-practicing entities (commonly referred to as "patent trolls"), which have no relevant product revenue and against whom our own patent portfolio may thus have no deterrent effect.

We may be subject to third-party claims in the future against us or our collaborators that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages, including treble damages and attorney's fees if we are found to be willfully infringing a third party's patents. If a patent infringement suit were brought against us or our collaborators, we or our collaborators could be forced to stop or delay research, development, manufacturing or sales of our Product Portfolio. As a result of patent infringement claims, or in order to avoid potential claims, we or our collaborators may choose to seek, or be required to seek, a license from the third party and would most likely be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or our collaborators were able to obtain a license, the rights may be nonexclusive, which would give our competitors access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or forced to redesign it, or to cease some aspect of our business operations if, as a result of actual or threatened patent infringement claims, we or our collaborators are unable to enter into licenses on acceptable terms. Even if we are successful in defending such claims, infringement and other intellectual property litigation can be expensive and time-consuming to litigate and divert management's attention from our core business. Any of these events could harm our business significantly.

In addition to infringement claims against us, if third parties have prepared and filed patent applications in the U.S. that also claim technology to which we have rights, we may have to participate in interference proceedings in the USPTO to determine the priority of invention. Third parties may also attempt to initiate reexamination, post grant review, or inter parties review of our patents in the USPTO. We may also become involved in similar opposition proceedings in the EPO or comparable offices in other jurisdictions regarding our intellectual property rights with respect to our products and technology. Any of these claims could have a material adverse effect on our business, results of operations and financial condition.

If our efforts to protect the proprietary nature of the intellectual property related to our Product Portfolio or any of our potential future product candidates are not adequate, we may not be able to compete effectively in our market.

We expect to rely upon a combination of patents, trade secret protection as well as confidentiality and license agreements to protect the intellectual property related to our product and our current product candidates and our development programs.

Composition-of-matter patents on an active pharmaceutical ingredient are generally considered to be the strongest form of intellectual property protection for pharmaceutical products, as such patents provide protection without regard to any particular method of use or manufacture. We cannot be certain that the claims in any patent application that we may submit covering composition-of-matter of any of our products and any potential future product candidates will be considered patentable by the USPTO and courts in the U.S., or by the patent offices and courts in foreign countries. Method-of-use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our product for an indication that is outside the scope of the patented method.

The strength of patents involves complex legal and scientific questions and can be uncertain. The patent applications that we may in the future own or license may fail to result in issued patents in the U.S. or in other foreign countries. Even if the patents do successfully issue, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, any of our future patents and patent applications may not adequately protect our intellectual property or prevent others from designing around our claims. If the breadth or strength of protection provided by the patent applications we may in the future own, in-license or pursue with respect to our Product Portfolio or any future product candidates is threatened, it could threaten our ability to commercialize our Product Portfolio or any future product candidates. Further, if we encounter delays in our development efforts, the period of time during which we could market our Product Portfolio or any future product candidates under patent protection would be reduced. Since patent applications in the U.S. and most other countries are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our Product Portfolio or any future product candidates.

Even where laws provide protection, costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and the outcome of such litigation would be uncertain. Moreover, any actions we may bring to enforce our intellectual property against our competitors could provoke them to bring counterclaims against us, and some of our competitors have substantially greater intellectual property portfolios than we have.

We will also rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our product development processes that involve proprietary know-how, information or technology that is not covered by patents. Although we endeavor to execute confidentiality agreements with all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information or technology, we cannot be certain that we have executed such agreements with all parties who may have helped to develop our intellectual property or had access to our proprietary information, nor that our agreements will not be breached. We cannot guarantee that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the EU or the U.S. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the U.S. and elsewhere. If we are unable to prevent material disclosure of the intellectual property related to our technologies to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially and adversely affect our business, results of operations and financial condition.

Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, thus eroding our competitive position in our market.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our Product Portfolio.

As is the case with other biopharmaceutical companies, our success will be heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity. Therefore, obtaining and enforcing biopharmaceutical patents is costly, time-consuming and inherently uncertain. In addition, the U.S. has recently enacted and is currently implementing wide-ranging patent reform legislation. The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in other situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in ways that would weaken our ability to obtain patents and to enforce patents that we might obtain in the future. Similarly, changes in EU patent law and elsewhere could negatively affect the value of our patents registered outside of the U.S.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with any of these requirements.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case, which could have a material adverse effect on our business, results of operations and financial condition.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on our Product Portfolio and any future product candidates throughout the world is prohibitively expensive. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection, but where enforcement is not as strong as that in the U.S. These products may compete with our products in jurisdictions where we do not have any issued or licensed patents and our patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

Risks Related to the Securities Markets and Ownership of our Equity Securities

The Common Stock is thinly traded, so you may be unable to sell at or near ask prices or at all if you need to sell your shares to raise money or otherwise desire to liquidate your shares.

The Common Stock has historically been sporadically traded on the OTC PinkSheets, meaning that the number of persons interested in purchasing our shares at or near ask prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give you any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained.

The market price for the common stock is particularly volatile given our status as a relatively unknown company with a small and thinly traded public float, limited operating history and lack of revenue, which could lead to wide fluctuations in our share price. The price at which you purchase our shares may not be indicative of the price that will prevail in the trading market. You may be unable to sell your common shares at or above your purchase price, which may result in substantial losses to you.

The market for our shares of common stock is characterized by significant price volatility when compared to seasoned issuers, and we expect that our share price will continue to be more volatile than a seasoned issuer for the indefinite future. The volatility in our share price is attributable to a number of factors. First, as noted above, our shares are sporadically traded. Because of this lack of liquidity, the trading of relatively small quantities of shares may disproportionately influence the price of those shares in either direction. The price for our shares could, for example, decline precipitously in the event that a large number of our shares is sold on the market without commensurate demand, as compared to a seasoned issuer which could better absorb those sales without adverse impact on its share price. Secondly, we are a speculative investment due to, among other matters, our limited operating history and lack of revenue or profit to date, and the uncertainty of future market acceptance for our potential products. As a consequence of this enhanced risk, more risk-averse investors may, under the fear of losing all or most of their investment in the event of negative news or lack of progress, be more inclined to sell their shares on the market more quickly and at greater discounts than would be the case with the securities of a seasoned issuer. The following factors may add to the volatility in the price of our shares: actual or anticipated variations in our quarterly or annual operating results; acceptance of our inventory of games; government regulations, announcements of significant acquisitions, strategic partnerships or joint ventures; our capital commitments and additions or departures of our key personnel. Many of these factors are beyond our control and may decrease the market price of our shares regardless of our operating performance. We cannot make any predictions or projections as to what the prevailing market price for our shares will be at any time, including as to whether our shares will sustain their current market prices, or as to what effect the sale of shares or the availability of shares for sale at any time will have on the prevailing market price.

Shareholders should be aware that, according to SEC Release No. 34-29093, the market for penny stocks has suffered in recent years from patterns of fraud and abuse. Such patterns include (1) control of the market for the security by one or a few broker-dealers that are often related to the promoter or issuer; (2) manipulation of prices through prearranged matching of purchases and sales and false and misleading press releases; (3) boiler room practices involving high-pressure sales tactics and unrealistic price projections by inexperienced sales persons; (4) excessive and undisclosed bid-ask differential and markups by selling broker-dealers; and (5) the wholesale dumping of the same securities by promoters and broker-dealers after prices have been manipulated to a desired level, along with the resulting inevitable collapse of those prices and with consequent investor losses. Our management is aware of the abuses that have occurred historically in the penny stock market. Although we do not expect to be in a position to dictate the behavior of the market or of broker-dealers who participate in the market, management will strive within the confines of practical limitations to prevent the described patterns from being established with respect to our securities. The occurrence of these patterns or practices could increase the volatility of our share price.

The market price of our common stock may be volatile and adversely affected by several factors.

The market price of our common stock could fluctuate significantly in response to various factors and events, including, but not limited to:

- our ability to integrate operations, technology, products and services;
- our ability to execute our business plan;

- operating results below expectations;
- our issuance of additional securities, including debt or equity or a combination thereof;
- announcements of technological innovations or new products by us or our competitors;
- loss of any strategic relationship;
- industry developments, including, without limitation, changes in healthcare policies or practices;
- economic and other external factors;
- period-to-period fluctuations in our financial results; and
- whether an active trading market in our common stock develops and is maintained.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of our common stock. Issuers using the Alternative Reporting standard for filing financial reports with OTC Markets are often subject to large volatility unrelated to the fundamentals of the company.

Our issuance of additional shares of Common Stock, or options or warrants to purchase those shares, would dilute your proportionate ownership and voting rights.

We are entitled under our articles of incorporation to issue up to 500,000,000 shares of common stock. We have issued and outstanding, as of the date of this prospectus, 252,504,841 shares of common stock. Our board may generally issue shares of common stock, preferred stock or options or warrants to purchase those shares, without further approval by our shareholders based upon such factors as our board of directors may deem relevant at that time. It is likely that we will be required to issue a large amount of additional securities to raise capital to further our development. It is also likely that we will issue a large amount of additional securities to directors, officers, employees and consultants as compensatory grants in connection with their services, both in the form of stand-alone grants or under our stock plans. We cannot give you any assurance that we will not issue additional shares of common stock, or options or warrants to purchase those shares, under circumstances we may deem appropriate at the time.

The elimination of monetary liability against our directors, officers and employees under our Articles of Incorporation and the existence of indemnification rights to our directors, officers and employees may result in substantial expenditures by our company and may discourage lawsuits against our directors, officers and employees.

Our Articles of Incorporation contains provisions that eliminate the liability of our directors for monetary damages to our company and shareholders. Our bylaws also require us to indemnify our officers and directors. We may also have contractual indemnification obligations under our agreements with our directors, officers and employees. The foregoing indemnification obligations could result in our company incurring substantial expenditures to cover the cost of settlement or damage awards against directors, officers and employees that we may be unable to recoup. These provisions and resultant costs may also discourage our company from bringing a lawsuit against directors, officers and employees for breaches of their fiduciary duties, and may similarly discourage the filing of derivative litigation by our shareholders against our directors, officers and employees even though such actions, if successful, might otherwise benefit our company and shareholders.

Anti-takeover provisions may impede the acquisition of our company.

Certain provisions of the Nevada Revised Statutes have anti-takeover effects and may inhibit a non-negotiated merger or other business combination. These provisions are intended to encourage any person interested in acquiring us to negotiate with, and to obtain the approval of, our board of directors in connection with such a transaction. However, certain of these provisions may discourage a future acquisition of us, including an acquisition in which the shareholders might otherwise receive a premium for their shares. As a result, shareholders who might desire to participate in such a transaction may not have the opportunity to do so.

Our financials are not independently audited, which could result in errors and/or omissions in our financial statements if proper standards are not applied.

Although the Company is confident with its accounting firm, we are not required to have our financials audited by a certified Public Company Accounting Oversight Board (“PCAOB”). As such, our accountants do not have a third party reviewing the accounting. Our accountants may also not be up to date with all publications and releases put out by the PCAOB regarding accounting standards and treatments. This could mean that our unaudited financials may not properly reflect up to date standards and treatments resulting misstated financials statements.

We may become involved in securities class action litigation that could divert management’s attention and harm our business.

The stock market in general, and the shares of early stage companies in particular, have experienced extreme price and volume fluctuations. These fluctuations have often been unrelated or disproportionate to the operating performance of the companies involved. If these fluctuations occur in the future, the market price of our shares could fall regardless of our operating performance. In the past, following periods of volatility in the market price of a particular company’s securities, securities class action litigation has often been brought against that company. If the market price or volume of our shares suffers extreme fluctuations, then we may become involved in this type of litigation, which would be expensive and divert management’s attention and resources from managing our business.

As a public company, we may also from time to time make forward-looking statements about future operating results and provide some financial guidance to the public markets. Our management has limited experience as a management team in a public company and as a result, projections may not be made timely or set at expected performance levels and could materially affect the price of our shares. Any failure to meet published forward-looking statements that adversely affect the stock price could result in losses to investors, stockholder lawsuits or other litigation, sanctions or restrictions issued by the SEC.

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

The SEC has adopted Rule 15g-9 which establishes the definition of a “penny stock,” for the purposes relevant to us, as any equity security that has a market price of less than \$5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require that a broker or dealer approve a person’s account for transactions in penny stocks, and the broker or dealer receive from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person’s account for transactions in penny stocks, the broker or dealer must obtain financial information and investment experience objectives of the person and make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the SEC relating to the penny stock market, which, in highlight form sets forth the basis on which the broker or dealer made the suitability determination, and that the broker or dealer received a signed, written agreement from the investor prior to the transaction.

Generally, brokers may be less willing to execute transactions in securities subject to the “penny stock” rules. This may make it more difficult for investors to dispose of our common stock if and when such shares are eligible for sale and may cause a decline in the market value of its stock.

Disclosure also has to be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stock.

As an issuer of “penny stock,” the protection provided by the federal securities laws relating to forward-looking statements does not apply to us

Although federal securities laws provide a safe harbor for forward-looking statements made by a public company that files reports under the federal securities laws, this safe harbor is not available to issuers of penny stocks. As a result, we will not have the benefit of this safe harbor protection in the event of any legal action based upon a claim that the material provided by us contained a material misstatement of fact or was misleading in any material respect because of our failure to include any statements necessary to make the statements not misleading. Such an action could hurt our financial condition.

As an issuer not required to make reports to the Securities and Exchange Commission under Section 13 or 15(d) of the Securities Exchange Act of 1934, holders of restricted shares may not be able to sell shares into the open market as Rule 144 exemptions may not apply.

Under Rule 144 of the Securities Act of 1933 holders of restricted shares, may avail themselves of certain exemption from registration if the holder and the issuer meet certain requirements. As a company that is not required to file reports under Section 13 or 15(d) of the Securities Exchange Act, referred to as a non-reporting company, we may not, in the future, meet the requirements for an issuer under 144 that would allow a holder to qualify for Rule 144 exemptions. In such an event, holders of restricted stock would have to utilize another exemption from registration or rely on a registration statement to be filed by the Company registered the restricted stock. Currently, the Company has no plans of filing a registration statement with the Commission.

Securities analysts may elect not to report on our common stock or may issue negative reports that adversely affect the stock price.

At this time, no securities analysts provide research coverage of our common stock, and securities analysts may not elect not to provide such coverage in the future. It may remain difficult for our company, with its small market capitalization, to attract independent financial analysts that will cover our common stock. If securities analysts do not cover our common stock, the lack of research coverage may adversely affect the stock’s actual and potential market price. The trading market for our common stock may be affected in part by the research and reports that industry or financial analysts publish about our business. If one or more analysts elect to cover our company and then downgrade the stock, the stock price would likely decline rapidly. If one or more of these analysts cease coverage of our company, we could lose visibility in the market, which, in turn, could cause our stock price to decline. This could have a negative effect on the market price of our common stock.

We have not paid cash dividends in the past and do not expect to pay cash dividends in the foreseeable future. Any return on investment may be limited to the value of our common stock.

We have never paid cash dividends on our capital stock and do not anticipate paying cash dividends on our capital stock in the foreseeable future. The payment of dividends on our capital stock will depend on our earnings, financial condition and other business and economic factors affecting us at such time as the board of directors may consider relevant. If we do not pay dividends, our common stock may be less valuable because a return on your investment will only occur if the common stock price appreciates.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

We make forward-looking statements under the “Summary,” “Risk Factors,” “Business,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and in other sections of this Offering Circular. In some cases, you can identify these statements by forward-looking words such as “may,” “might,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential” or “continue,” and the negative of these terms and other comparable terminology. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. In particular, you should consider the numerous risks and uncertainties described under “Risk Factors.”

While we believe we have identified material risks, these risks and uncertainties are not exhaustive. Other sections of this Offering Circular describe additional factors that could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors 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.

Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy or completeness of any of these forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. We are under no duty to update any of these forward-looking statements after the date of this Offering Circular to conform our prior statements to actual results or revised expectations, and we do not intend to do so.

Forward-looking statements include, but are not limited to, statements about:

- our business’ strategies and investment policies;
- our business’ financing plans and the availability of capital;
- potential growth opportunities available to our business;
- the risks associated with potential acquisitions by us;
- the recruitment and retention of our officers and employees;
- our expected levels of compensation;
- the effects of competition on our business; and
- the impact of future legislation and regulatory changes on our business.

We caution you not to place undue reliance on the forward-looking statements, which speak only as of the date of this Offering Circular.

USE OF PROCEEDS

The following Use of Proceeds is based on estimates made by management. The Company planned the Use of Proceeds after deducting estimated offering expenses estimated to be \$50,000. Management prepared the milestones based on three levels of offering raise success: 25% of the Maximum Offering proceeds raised (\$1,250,000), 50% of the Maximum Offering proceeds raised (\$2,500,000), 75% of the Maximum Offering proceeds raised (\$3,750,000) and the Maximum Offering proceeds raised of \$5,000,000 through the offering. The costs associated with operating as a public company are included in all our budgeted scenarios and management is responsible for the preparation of the required documents to keep the costs to a minimum.

Although we have no minimum offering, we have calculated used of proceeds such that if we raise 25% of the offering is budgeted to sustain operations for a twelve-month period. 25% of the Maximum Offering is sufficient to keep the Company current with its public listing status costs with prudently budgeted funds remaining which will be sufficient to complete the development of our marketing package. If the Company were to raise 50% of the Maximum Offering, then we would be able to expand our marketing outside the US. Raising the Maximum Offering will enable the Company to implement our full business. If we begin to generate profits, we plan to increase our marketing and sales activity accordingly.

The Company intends to use the proceeds from this offering as follows:

Application of Proceeds	25% of Proceeds		50% of Maximum		75% of Maximum		Maximum	
	\$	% of Total	\$	% of total	\$	% of total	\$	% of total
Total Offering Proceeds	1,250,000		2,500,000		3,750,000		5,000,000	
Offering Expenses								
Legal & Professional Fees	25,000	2.00	25,000	1.00	25,000	0.66	25,000	0.50
Accounting and Audit Fees	20,000	1.60	20,000	0.80	20,000	0.53	20,000	0.40
Admin Fees	5,000	0.40	5,000	0.2	5,000	0.13	5,000	0.1
Total Offering Expenses	50,000	4.00	50,000	2.00	50,000	1.33	50,000	1.00
Net Proceeds from Offering	1,200,000		2,450,000		3,700,000		4,950,000	
Use of Net Proceeds								
Redemption of Outstanding Secured and Unsecured Notes	0	0	1,000,000	40.00	1,000,000	26.66	1,000,000	20.00
Accounts Payable and Service Providers	200,000	18.00	200,000	8.00	200,000	5.33	200,000	4.00
Working Capital	1,000,000	80.00	1,250,000	50.00	2,500,000	66.66	3,750,000	75.00
Total Use of Net Proceeds								

Notes:

DIVIDEND POLICY

We have not declared or paid any dividends on our common stock. We intend to retain earnings for use in our operations and to finance our business. Any change in our dividend policy is within the discretion of our board of directors and will depend, among other things, on our earnings, debt service and capital requirements, restrictions in financing agreements, if any, business conditions, legal restrictions and other factors that our board of directors deems relevant.

DILUTION

Purchasers of our common stock in this offering will experience an immediate dilution of net tangible book value per share from the public offering price. Dilution in net tangible book value per share represents the difference between the amount per share paid by the purchasers of shares of common stock and the net tangible book value per share immediately after this offering.

After giving effect to the sale of our common stock in this offering at an assumed public offering price between \$0.01 and \$1.00 per share and after deducting the estimated offering expenses payable by us our adjusted net tangible book value at June 30, 2019 would have been \$ 10,536,762 or \$0.0138 per share, assuming maximum offering size. At an Offering Price of \$0.01 per share, this represents an immediate decrease in net tangible book value per share of \$0.0073 to the existing stockholders and dilution in net tangible book value per share of \$0.004 to new investors who purchase shares in the offering assuming maximum offering size. At an Offering Price of \$1.00 per share, this represents an immediate increase in net tangible book value per share of \$0.0184 to the existing stockholders and dilution in net tangible book value per share of \$0.96 to new investors who purchase shares in the offering assuming maximum offering size.

The following table sets forth the estimated net tangible book value per share after the offering and the dilution to persons purchasing Common Stock based on the foregoing minimum and maximum offering assumptions based on an offering price of \$0.01 per share. The numbers are based on the total issued and outstanding shares of common stock as of June 30 2019.

	<u>25%</u>	<u>50.0%</u>	<u>75%</u>	<u>100%</u>
Net Value	\$ 6,786,762	\$ 8,036,762	\$ 9,286,762	\$ 10,536,762
# Total Shares	386,384,788	511,384,788	636,384,788	761,384,788
Net Book Value Per Share	\$ 0.0176	\$ 0.0157	\$ 0.0146	\$ 0.0138
Increase in NBV/Share	\$ 0.(.0036)	\$ (.0055)	\$ (.0066)	\$ 0.(.0073)
Dilution to new shareholders	\$ 0(.0076)	\$ (.01)	\$ (.0046)	\$ 0.004
Percentage Dilution to New Shareholders	(75.65)%	(57.16)%	(45.93)%	(38.39)%

The following table sets forth the estimated net tangible book value per share after the offering and the dilution to persons purchasing Common Stock based on the foregoing minimum and maximum offering assumptions based on an offering price of \$1.00 per share. The numbers are based on the total issued and outstanding shares of common stock as of June 30, 2019.

	<u>25%</u>	<u>50.0%</u>	<u>75%</u>	<u>100%</u>
Net Value	\$ 6,786,762	\$ 8,036,762	\$ 9,286,762	\$ 10,536,762
# Total Shares	262,634,788	263,884,788	265,134,788	266,384,788
Net Book Value Per Share	\$ 0.0258	\$ 0.0305	\$ 0.0350	\$ 0.0396
Increase in NBV/Share	\$ 0.0047	\$ 0.0093	\$ 0.0138	\$ 0.0184
Dilution to New Shareholders	\$ 0.9742	\$.097	\$ 0.9650	\$ 0.96
Percentage Dilution to New Shareholders	97.42%	96.95%	96.50%	96.04%

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read in conjunction with the unaudited financial statements and the notes thereto of the Company included in this Offering Circular. The following discussion contains forward-looking statements. Actual results could differ materially from the results discussed in the forward-looking statements. See "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements" above.

Overview

Amarantus Bioscience Holdings ("AMBS" or "The Company") is a biotechnology holding company developing treatments and diagnostics for diseases in the areas of neurology, regenerative medicine and orphan diseases through our subsidiaries. The Company's new Hemp-focused business plan via wholly-owned subsidiary Hemp BioHealth, Inc. to focus on neurological applications for inhalable non-psychoactive cannabinoid products, and our biotechnology portfolio which consists of Engineered Skin Substitute (autologous full thickness skin grafting), MANF (neurotrophic factor protein for ophthalmology and Parkinson's), PhenoGuard (neurotrophic factor discovery platform), eltoprazine (serotonin agonist for CNS disorders, including Parkinson's levodopa induced dyskinesia), TBIA (blood tests for cancers), LymPro Test (Alzheimer's blood test), NuroPro (blood test for Parkinson's) and Theralink (tumor biopsy phosphoprotein biomarker platform for cancer drug selection) are being developed by technology-focused subsidiaries. The subsidiary portfolio consists of wholly-owned subsidiaries and partially-owned subsidiaries:

Wholly-owned subsidiaries

- (i) **Cutanogen Corporation** that is preparing to initiate a potentially pivotal clinical development program for the autologous, full thickness skin grafting program Engineered Skin Substitute ("ESS") for the treatment of large, life-threatening pediatric severe burns, with significant additional potential applications in the treatment of critical care and cosmetic-related applications;
- (ii) **MANF Therapeutics, Inc.** that is developing the pre-clinical stage protein drug candidate mesencephalic astrocyte-derived neurotrophic factor ("MANF") for the treatment of vision loss associated with the rare genetic condition Wolfram's Syndrome, as well as the treatment of other vision-related disorders such as retinitis pigmentosa, glaucoma and macular degeneration. Additionally, MANF has potential applications in the treatment of Parkinson's disease, diabetes and several other conditions;
- (iii) **AMBS Operations LLC** is setup to manage the assets of Amarantus Bioscience Holdings, Inc.
- (iv) **Hemp BioHealth, LLC** that is seeking to develop inhalable non-psychoactive cannabinoid products for nicotine smoking cessation (cigarettes and e-cigarettes/vapes) and other CNS-related disorders;

Partially-owned subsidiaries

- (v) 15% ownership in **Todos Medical Ltd.** (based in Israel, NASDAQ: TOMD) that is developing the TBIA cancer blood testing platform focused on the early detection of breast cancer, colon cancer and lung cancer as well as the Alzheimer's blood diagnostic LymPro Test® as a pre-symptomatic blood test for Alzheimer's disease, as well as potentially for the early diagnosis of Chronic Traumatic Encephalopathy;
- (vi) 50% ownership in **Elto Pharma, Inc.** that is preparing to initiate a Phase 2b clinical trial for the small molecule drug candidate eltoprazine for the treatment of Parkinson's disease levodopa-induced dyskinesia (PD-LID), with additional potential applications for the treatment of agitation in Alzheimer's disease and adult attention deficit and hyperactivity disorder (adult ADHD);
- (vii) 32.4% common stock ownership in Avant Diagnostics, Inc. (OTCPK: AVDX) that is commercializing the phosphoprotein tumor analysis platform Theralink® to improve diagnosis and treatment response rates across all cancers.

Results of Operations for the Year Ended December 31, 2018 as Compared to the Year Ended December 31, 2017 and For the Six Months Ended June 30, 2019 Compared the Six Months Ended June 30, 2018.

Revenue

As the Company is generally a biotech firm with operations focused on research and development, we have not generated any revenues since inception.

Operating Expenses

During the year ended December 31, 2018, operating expenses decrease by \$223,261, from \$3,263,195 for the year ended December 31, 2017 to \$3,039,934 in 2018 due to a reduction in in our general and administrative costs.

During the six months ended June 30, 2019 operating expenses decreased by \$1,656,152, from \$2,530,242 for the six months ended June 30, 2018 to \$874,090 in 2019 due to a decrease in general and administrative costs of \$1,654,936.

Research and development

During the year ended December 31, 2018, research and development expenses were \$1,826 compared to \$180 for the year ended December 31, 2017. All research and development costs were incurred by Amarantus, the parent company.

During the six months ended June 30, 2019, research and development expenses were \$611 compared to \$1,827 for the year ended June 30, 2018. All research and development costs were incurred by Amarantus, the parent company.

Other Income (Expenses)

Interest Income

During the year ended December 31, 2018, Other Income (Expenses) increased \$ 8,913,128 from \$(1,368,999 for the year ended December 31, 2017 to \$(7,544,129) in 2018 mostly due to the change in fair value of our investment in Avantas stock.

During the six months ended June 30, 2019, Other Income (Expenses) decreased \$ 890,560 from \$ (940,560) for the six months ended June 30, 2019 to \$50,000 in 2018, due mostly to a substantial decrease in interest expense of \$952,213

Net loss

As a result of the above, Net Loss increased \$5,591,869 from \$4,632,194 for the year ended December 31, 2017 to \$10,584,063 in 2017.

As a result of the above, Net Loss decreased \$ 2,646,712 from \$3,470,802 for the six months ended June 30, 2018 to \$824,090 in 2019.

Liquidity and Capital Resources

The accompanying unaudited financial statements have been prepared assuming the Company will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the accompanying unaudited financial statements, during the year ended December 31, 2018, the Company incurred a net loss of \$4,632,194, and at December 31, 2018, the Company had a working capital deficit of \$30,632,184. These and other factors raise substantial doubt about the Company's ability to continue as a going concern. The unaudited financial statements do not include any adjustments that might be necessary should the Company be unable to continue as a going concern.

At June 30, 2019 the Company had cash on hand of \$178. We may be required to raise additional funds, particularly if we are unable to generate positive cash flow as a result of our operations. We estimate that based on current plans and assumptions, that our cash will not be sufficient to satisfy our cash requirements under our present operating expectations, without further financing, for up to 12 months. In order to continue as a going concern, develop a reliable source of revenues, and achieve a profitable level of operations the Company will need, among other things, additional capital resources. Management's plans to continue as a going concern include raising additional capital through borrowings and the sale of common stock. No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing, or cause substantial dilution for our stockholders, in case of an equity financing.

Operating Activities

During the year ended December 31, 2019, we used \$8,788,881 of cash in operating activities. Non-cash adjustments were \$7,521,620, prepaid expense and current assets of \$85,605 and \$696,634 in accounts payable and accrued expenses

For the six months ended June 30, 2019 we generated \$2,058,897 of cash in operating activities. There were no non-cash adjustments and of 0 in prepaid expenses and other current assets and \$2,058,898 in accounts payable and accrued expenses

Investing Activities

For the year ended December 31, 2018 we generated \$6,069,887 in investment activities.

For the six months ended June 30, 2019 we used \$2,026,183 in investment activities.

Financing Activities

For the year ended December 31, 2018 we received \$1,999,984 from financing activities, consisting of \$1,528,141 in additional paid in capital, \$437,504 from the issuance of convertible preferred stock, \$57,739 from the issuance of common stock, and \$(23,400) in accumulated deficit.

For the six months ended June 30, 2019 we generated \$736,726 of cash from financing activities. This consisted mainly of exchanging the Company's preferred series E, H, and I shares into senior convertible notes.

Critical Accounting Policies and Estimates

Use of estimates

The preparation of the unaudited financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. Significant estimates during the years ended December 31, 2018 and 2017 include the useful lives of website development cost, beneficial conversion of convertible notes payable, the valuation of derivative liabilities and the valuation of stock-based compensation.

Revenue recognition

The Company follows ASC 605-10 “Revenue Recognition” and recognizes revenue when all the conditions for revenue recognition are met: (i) persuasive evidence of an arrangement exists, (ii) collection of the fee is probable, (iii) the sales price is fixed and determinable and (iv) services have been rendered.

Revenue is derived from subscription fees and the recovery of photo infringement settlement fees. The Company collects settlement fees for commercial and editorial uses from operating companies. The Company provides infringement protection and monitoring services to copyright owners under which copyright owners retain the Company to identify and collect settlement payments from Internet users who have infringed on their copyrights. Revenue is recognized when the Company collects a settlement fee or upon entering into a settlement agreement which acts as a waiver to the infringement against the copyright owner. Fee-for-service revenue is reported net of contractual allowances.

The Company reports its revenue at gross amounts in accordance with ASC 605-45 “Principal Agent Considerations” because it is responsible for fulfillment of the service, has substantial latitude in setting price, assumes the credit risk and it is responsible for the payment of all obligations incurred for legal and debt collection fees. The Company bears the credit risks if it does not collect the settlement fees and will be responsible to pay for fees including, but not limited to, court filing fees, collection fees, travel costs, deposition reporter, video, and transcript fees, expert fees and expenses, investigation costs, messenger and process service fees, computer-assisted legal research fees, document duplication and/or imaging expenses, electronic-data vendor fees, and any fees or costs that a court may order to pay to a party or third party.

Derivative Liabilities

The Company follows the provisions of FASB ASC Topic No. 815-40, “Derivatives and Hedging - Contracts in an Entity’s Own Stock”, for the embedded conversion options that were accounted for as derivative liabilities at the date of issuance and adjusted to fair value through earnings at each reporting date. In accordance with ASC 815, the Company has bifurcated the conversion feature of the convertible Debentures, along with any free-standing derivative instruments and recorded derivative liabilities on their issuance date. The Company uses the Black-Scholes model to value the derivative liabilities.

BUSINESS

Our Business

Amarantus Bioscience Holdings (“AMBS” or “The Company”) is a biotechnology holding company developing treatments and diagnostics for diseases in the areas of neurology, regenerative medicine and orphan diseases through our subsidiaries. The Company’s new Hemp-focused business plan via wholly-owned subsidiary Hemp BioHealth, Inc. to focus on neurological applications for inhalable non-psychoactive cannabinoid products, and our biotechnology portfolio which consists of Engineered Skin Substitute (autologous full thickness skin grating), MANF (neurotrophic factor protein for ophthalmology and Parkinson’s), PhenoGuard (neurotrophic factor discovery platform), eltoprazine (serotonin agonist for CNS disorders, including Parkinson’s levodopa induced dyskinesia), TBIA (blood tests for cancers), LymPro Test (Alzheimer’s blood test), NuroPro (blood test for Parkinson’s) and Theralink (tumor biopsy phosphoprotein biomarker platform for cancer drug selection) are being developed by technology-focused subsidiaries. The subsidiary portfolio consists of wholly-owned subsidiaries and partially-owned subsidiaries:

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- (vii) 32.4% common stock ownership in Avant Diagnostics, Inc. (OTCPK: AVDX) that is commercializing the phosphoprotein tumor analysis platform Theralink® to improve diagnosis and treatment response rates across all cancers.

Principal Products in Development

Eltoprazine in development for the treatment of symptomatic neurological disorders

Summary

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

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

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

Destrum Partners, LLC, a nationally recognized consultant in bio-science evaluations recently provided the Company with a risk adjusted net present value of approximately \$316,000,000, segregated into US markets and European markets, \$128,000,000 and \$188,000,000, respectively. Although we cannot book this value as an asset on our balance sheet without the approval of an independent auditor, we are confident that this valuation represents potential value of our Eltoprazine products.

Competition

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

Amantadine

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

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

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

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

Mavoglurant (AFQ056) (developed by Novartis):

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

Dipraglurant (in development by Addex Therapeutics):

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

Treatments for Adult ADHD

Adderall

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

Methylphenidate

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

Dexmethylphenidate

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

Atomoxetine

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

Market

Treatments for Parkinson's Disease Levodopa Induced Dyskinesia

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

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

Treatments for Adult Attention Deficit Hyperactivity Disorder

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

Cutanogen Corporation is developing Engineered Skin Substitute (ESS)

Summary

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

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

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

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

Competition

Treatments for Severe Burns

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

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

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

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

Market

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

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

Todos Medical for the early blood diagnosis of cancer and Alzheimer's disease

TM-B1 and TM-B2

Our breast cancer blood Test is targeting a large population of women that need to be checked regularly for breast cancer, whether that is because of a high risk group or at an age that women are routinely screened. Usually all women above 40 years old undergo a breast testing. The recommended testing protocol using Mammography and Ultrasound have their limitations and discomfort. Our proprietary TM-B1 cancer test will support current cancer diagnostic protocols in their weak points (like dense breast tissue and young woman) and give a simple and low-cost solution for early detection. Our proprietary TM-B2 cancer screen will allow health care providers to distinguish between benign and malignant breast tumors.

Competition

1. Exact Sciences (EXAS) Marketing Cologuard stool-based detection test for the detection of colorectal cancer
2. Volition Rx (VNRX) Developing blood-based diagnostic tests for colorectal, lung, prostate, ovarian and other cancer types based on nucleosomics
3. Epigenomics (EPGNF) Engages in developing and commercializing in vitro diagnostic tests for the detection and diagnosis of cancer (EpiProColon - methylated Septin9 DNA in human plasma)
4. Cancer Genetics (CGIX) Focuses on developing and commercializing proprietary genomic tests to improve and personalize the diagnosis and response to treatment of cancer.

The LymPro Test

The Lymphocyte Proliferation Test (“LymPro Test™”, or “LymPro”) is a diagnostic blood test for Alzheimer’s disease originally developed by the University of Leipzig in Germany. The test works by evaluating the cell surface marker CD69 on peripheral blood lymphocytes following a mitogenic stimulation. The underlying scientific basis for LymPro is that Alzheimer’s patients have a dysfunctional cellular machinery division process that inappropriately allows mature neurons in the brain to enter the mitotic process (cell division /cell cycle). When this happens, the neurons start the cell division process, but cannot complete the process. This inappropriate cell division activation process is also present in the lymphocytes of Alzheimer’s patients. The LymPro Test was analytically validated under CLIA guidelines under an investigational use only (“IUO”) designation at the company’s contracting laboratory, Icon Central Laboratories in Farmingdale, NY in 2015.

Competition

Cerebrospinal Fluid (CSF)

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

Positron Emission Tomography (PET)

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

Magneto encephalography (MEG)

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

Magnetic Resonance Imaging (MRI)

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

Cognition

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

MANF Therapeutics, Inc. developing Mesencephalic Astrocyte-derived Neurotrophic Factor (MANF)

Summary

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

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

Competition

Treatments for Retinitis Pigmentosa

The NT-501 (Renexus®) ECT implant system

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

Halorhodopsin gene therapy treatment

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

Trimeric Laboratories developing Phenoguard for the discovery of new neurotrophic factors

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

Competition

Academic Laboratories

Avant Diagnostics commercializing Theralink for combination drug selection in cancer

Avant Diagnostics, Inc. is a healthcare data-generating technology company that specializes in biomarker assay services that target multiple areas of oncology. Avant provides precision oncology data through its TheraLink® assays to assist the biopharmaceutical industry and clinical oncologists in identifying likely responders, initially for breast cancer, to over 70 FDA-approved drug treatments. Avant is the leading developer of phospho-proteomic technologies that measure the activation status of key signaling pathways, with applications across multiple cancer types, including breast, colorectal, non-small cell lung cancer and pancreatic. This technology is instrumental in the development of Companion Diagnostics for molecular-targeted therapies. Theralink® empowers community physicians and clinical trial investigators with actionable information to make time-sensitive treatment decisions for their patients. Theralink® is designed to inform physicians which treatments are likely to be effective for their patients at any given moment in time, and to also identify which treatments are likely to be ineffective. These data have the potential to improve treatment efficacy and reduce side effects by foregoing ineffective therapy. For further information please visit <http://www.avantdiagnostics.com>.

Competition

1. Foundation Medicine
2. Perthera
3. Flatiron Health
4. Grail

Manufacturing

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

Market

Diagnosics for Alzheimer's disease

Treatments for Retinitis Pigmentosa

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

Diagnosics for Alzheimer's disease

Alzheimer's disease (AD) is a chronic neurodegenerative disorder affecting millions of people worldwide. It is the number one form of dementia in the world. The risk of being afflicted with AD increases with age, with one in nine people over the age of 65 having the disease. The prevalence of the disease is approximately 5,200,000 individuals in the US. On the other hand, the incidence (or rate at which new cases of disease develop) is age dependent with approximately 53 new cases per 1,000 people ages 65 to 74, 170 new cases per 1,000 people ages 75 to 84, and 231 new cases per 1,000 people ages 85 and older, with 454,000 new cases occurring in 2010 [Alzheimer's Association, 2013 Alzheimer's Disease Facts and Figures, Alzheimer's & Dementia, Volume 9, Issue 2]. AD is also the sixth leading cause of death across all ages in the United States [AA2013: 113], and its prevalence is expected to quadruple by 2050. It is estimated that the cost of caring for people with AD and other dementia's will increase from an estimated \$203 billion in 2013 to a projected \$1.2 trillion per year by 2050 with Medicare and Medicaid covering approximately 70% of such costs.

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

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

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

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

Diagnosics for Multiple Sclerosis

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

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

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

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

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

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

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

Distribution & Marketing

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

Regulation

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

CLIA Certification for Diagnostic Products

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

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

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

FDA Approval Process for Therapeutic Products

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

- preclinical laboratory tests and animal tests conducted in compliance with FDA’s good laboratory practice requirements;

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

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

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

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

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

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

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

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

Other Regulatory Requirements

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

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

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

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

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

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

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

Intellectual Property

The Company owns or has rights to more than 100 issued and pending patent applications worldwide covering our various proprietary technologies. We are able to protect our technology from unauthorized use by third parties only to the extent that it is covered by valid and enforceable patents or is effectively maintained as a trade secret or is protected by confidentiality agreements. Accordingly, patents or other proprietary rights are an essential element of our business.

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

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

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

Employees

We have 5 employees as of December 31, 2017. We also utilize outside consultants as needed to support our operations.

General

The Company is currently headquartered in New York, NY, leasing a temporary office at WeWork at 110 Wall Street. The Company's shares of common stock are publicly traded on the OTC Pinksheets under the symbol "AMBS".

MANAGEMENT

Directors of the corporation are elected by the stockholders to a term of one year and serve until a successor is elected and qualified. Officers of the corporation are appointed by the Board of Directors to a term of one year and serves until a successor is duly appointed and qualified, or until he or she is removed from office. The Board of Directors has no nominating, auditing or compensation committees. The Board of Directors also appointed our officers in accordance with the Bylaws of the Company, and per employment agreements negotiated between the Board of Directors and the respective officer. Currently, there are no such employment agreements. Officers listed herein are employed at the whim of the Directors and state employment law, where applicable.

The name, address, age and position of our officer and director is set forth below:

Name	Age	First Year as a Director or officer	Office(s) held
Gerald E. Commissiong	37		President and Chief Executive Officer, Director
Dr. John W. Commissiong	75		Chief Scientific Officer, Director
Steven Spence	60		Director
Robert L. Harris	75		Director
Donald D. Huffman	72		Director
Elise Brownell			EVP Project Manager & Operations

The term of office of each director of the Company ends at the next annual meeting of the Company's stockholders or when such director's successor is elected and qualifies. No date for the next annual meeting of stockholders is specified in the Company's bylaws or has been fixed by the Board of Directors. The term of office of each officer of the Company ends at the next annual meeting of the Company's Board of Directors, expected to take place immediately after the next annual meeting of stockholders, or when such officer's successor is elected and qualifies.

Directors are entitled to reimbursement for expenses in attending meetings but receive no other compensation for services as directors. Directors who are employees may receive compensation for services other than as director. No compensation has been paid to directors for services.

Biographical Information

Gerald E. Commissiong

President & Chief Executive Officer

Mr. Commissiong is President & CEO, Co-Founder and a member of the Board of Directors of Amaranthus Bioscience Holdings, Inc. Mr. Commissiong has been responsible for leading the Company's strategic transactions, licensing, research collaborations, mergers and acquisitions, and fund raising. He has completed several strategic acquisition and licensing transactions to build the Amaranthus' robust portfolio of therapeutics and diagnostics assets. Prior to becoming CEO in October 2011, Mr. Commissiong was the Chief Operating Officer. Prior to co-founding Amaranthus, Mr. Commissiong played professional football for the Calgary Stampeders of the Canadian Football League. Mr. Commissiong graduated from Stanford University in Management Science and Engineering with a focus on Financial Decisions.

Elise Brownell, Ph.D.

Senior Vice President of Operations and Project Management

Dr. Brownell joined Amaranthus in December 2014 and has more than 20 years of biotechnology and pharmaceutical project management experience with a proven track record of advancing programs through clinical development. She serves as a Life Sciences entrepreneurial advisor for ASTIA, the nation's premier entrepreneurial organization focused on women-led businesses. Dr. Brownell is also a member of the Editorial Advisory Board for Contract Pharma Magazine, and previous Chair of the Leaders Network program of Women in Consulting. She is the co-founder of ZephyrBiotech, LLC, a project management firm dedicated to advancing therapeutic candidates through development to key inflection points for clients. Earlier, Dr. Brownell was a founding member, head of project management and senior director of Aerovance, Inc., a venture-backed biotechnology company spun out from Bayer Healthcare, where she created and managed effective team processes to bring product candidates into full scale clinical Phase 1 and 2 development. Prior to Aerovance, Dr. Brownell acted as head of project management for Bayer's Biotechnology Unit, where she integrated project strategies to meet therapeutic and market needs. Other roles included building and negotiating partnerships with third parties to support development programs, leading research teams through early bench-to-clinic development phases, as well as entrepreneurial investment experience with Angel's Forum. Dr. Brownell received her M.S., M.Phil. and Ph.D. in biology from Yale University and her B.S. in biology from Allegheny College.

Steven Spence

Director

Steven Spence has over 30 years of experience in capital markets, business development and as a corporate advisor. Mr. Spence joined Dominick & Dickerman in 2014. After 3 years brokering swaps and FRAs at Eurobrokers International Ltd., Mr. Spence began a 17-year career at Merrill Lynch where he created, developed and managed various listed derivative operations for Merrill Lynch in the United States, Switzerland, France and throughout Asia. He returned to New York to run Global Listed Derivatives and subsequently to London where he served as COO of Merrill Lynch Security Services International. After leaving Merrill Lynch in 2003, Mr. Spence was an independent business consultant to public and private companies, serving as COO, independent Director and advisor to various companies and financial institutions. Mr. Spence is a graduate of Columbia University. Mr. Spence currently holds the series 7, 79, 24 and 66 FINRA Licenses.

Robert L. Harris

Director

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

Donald D. Huffman

Director

Mr. Huffman has served as a director of the Company since July 22, 2014 and has served on the board of directors of two other companies. In March 2015, Mr. Huffman became a member of the board of directors of SteadyMed LTD. (STDY - NASDAQ) and served as Audit Committee Chairman until its acquisition by United Therapeutics in August 2018. He served on the board of Dance BioPharm, Inc., from July 2013 to July 2018 and, additionally, as its Chief Financial Officer from April 2017 to February 2019. He is currently a Board Observer and Adviser. From September 2010 to March 2012, Mr. Huffman served as the Chief Financial Officer of Wafergen Biosystems Inc., a publicly-held emerging genomic analysis company (until its acquisition by Takara Bio USA in 2017) and was its Co-President from September 2011 to March 2012. From October 2008 to September 2010, Mr. Huffman served as the Chief Financial Officer of Asante Solutions, Inc., a medical device company with an approved wearable insulin pump. From July 2006 to October 2008, Mr. Huffman served as Chief Financial Officer of Guava Technologies, Inc., a life science instrumentation company acquired by Millipore Corporation and then Merck & Co., Inc. From October 2004 to July 2006, Mr. Huffman served as Chief Financial Officer and principal of Sanderling Ventures, a biomedical venture capital firm. Mr. Huffman also has served as the Chief Financial Officer of three other public companies: EndoSonic Corporation, which became Volcano Corporation (acquired by Philips NV), a company that manufactures medical devices; Microcide Pharmaceuticals, Inc., a biopharmaceutical company; and Celtrix Pharmaceuticals, Inc. (acquired by Insmid Incorporated), a company that developed novel therapeutics for the treatment of debilitating, degenerative conditions. Mr. Huffman earned a B.S. in Mineral Economics from Pennsylvania State University and an M.B.A. from the State University of New York at Buffalo. He completed the Financial Management Program at the Stanford University Graduate School of Business. Mr. Huffman is qualified based on his extensive financial and management background primarily focused in the life sciences.

John W. Commissiong, PhD
Chief Scientific Officer, Director

Dr. Commissiong has served as the Chief Scientific Officer and a Director of Amaranthus since co-founding the company in 2008. Prior to Amaranthus, Dr. Commissiong served as the CSO of Neurotrophics, Inc. and Prescient Neuropharma, Inc. Throughout his distinguished career, Dr. Commissiong has been focused on the discovery of novel neurotrophic factors for the treatment of neurodegenerative diseases as well as understanding the fundamental underlying biology of protoplasmic type-1 astrocytes that secrete neurotrophic factors. He was Chief of the Neural Transplantation Unit, NINDS-NIH, from 1989-94 where his research focused on identifying therapeutic approaches to spinal cord injury. Dr. Commissiong was Head of the Neurotrophic Factors Group, NINDS-NIH, from 1994-97 where he focused on developing technologies to systematically identify novel neurotrophic factors with applications for specific Central Nervous System disorders. He co-founded Prescient Neuropharma in 1999, and discovered MANF in 2003. The work pioneered by Dr. Commissiong has led to significant advancements in the field of astrocyte-neuron biology. Dr. Commissiong did his Postdoctoral work in the Lab Preclin Pharmac, NIMH-NIH, concentrating on the application of quadrupole mass spectrometry in the analysis of neurotransmitters. He holds a Ph.D. in Neurophysiology from the University of Southampton, a M.Sc. in Biochemical Pharmacology from the University of Southampton, and a B.S. in Biology and Chemistry from the University of the West Indies.

Executive Compensation

The table below summarizes all compensation awarded to, earned by, or paid to our Officers and Directors who occupied such position as of the date of this Offering Circular, for all services rendered in all capacities to us for the period for the past 2 years. The Company does not have employment agreements with any of the persons named below (and has not presently entered into such agreements with any such persons), and does not pay them a salary or other compensation at the present time. We also do not currently have any benefits, such as health or life insurance, available to our employees.

Name and Position	Year	Salary (\$)	Bonus (\$)	Stock awards (\$)	Option awards (\$)	Non-equity incentive plan compensation (\$)	Change in pension value and nonqualified deferred compensation earnings (\$)	All other compensation (\$)	Total (\$)
Gerald E. Commissiong	2015	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2016	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2017	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2018	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
John W. Commissiong	2015	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2016	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2017	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2018	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Steven Spence	2015	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2016	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2017	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2018	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Robert L. Harris	2015	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2016	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2017	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2018	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Donald D. Huffman	2015	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2016	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2017	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2018	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Elise Brownell	2015	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2016	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2017	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
	2018	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-

RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Please see Note 8 of our unaudited financial statements as it relates to related party transactions. There is 1 familial relationships between the Company and any officer or director: the Founder/CEO and Founder/CSO are father and son, respectively.

PRINCIPAL STOCKHOLDERS

The following table sets forth information as to the shares of common stock beneficially owned as of November 14, 2018, by (i) each person known to us to be the beneficial owner of more than 5% of our common stock; (ii) each Director; (iii) each Executive Officer; and (iv) all of our Directors and Executive Officers as a group. Unless otherwise indicated in the footnotes following the table, the persons as to whom the information is given had sole voting and investment power over the shares of common stock shown as beneficially owned by them. Beneficial ownership is determined in accordance with Rule 13d-3 under the Exchange Act, which generally means that shares of common stock subject to options currently exercisable or exercisable within 60 days of the date hereof are considered to be beneficially owned, including for the purpose of computing the percentage ownership of the person holding such options, but are not considered outstanding when computing the percentage ownership of each other person. The footnotes below indicate the amount of unvested options for each person in the table. None of these unvested options vest within 60 days of the date hereof.

Shareholder	Class of Stock	No. of Shares	Voting Rights (1)	% of Voting Rights (2)	% Voting Rights After Offering (Low Range)	% Voting Rights Post Offering (High Range)
Gerald E. Commissiong (3)	Common	400,931	400,931	0.0001%	0.01%	0.01%
	Series A	100	0	0%	0%	0%
	Series B	249,999	24,999,650,001	99%	1.38%	6.64%
	Series E	1,048,907	0	0%	0%	0%
	Series H	291.6665	0	0%	0%	1.95%
John W. Commissiong (4)	Common	982	982	0%	0.00%	0.00%
	Series A	30	0	0%	0%	0%
Steven Spence (5)	Common	6,000,000	6,000,000	0.00%	0.00%	0.00%
	Series A	15	%	0%	0%	0%
Robert L. Harris (6)	Common	24,986	24,986	0.01%	0.00%	0.01%
	Series A	15	0	0%	0%	0%
Donald D. Huffman (7)	Common	0	0	0.00%	0.00%	0.00%
	Series A	15	0	0%	0%	0%
Elise Brownell (8)	Common	0	0	0.00%	0.00%	0.00%
	Series A	30	0	0%	0%	0%
All Officers and Directors (6 persons)	<i>n/a</i>		25,006,076,901	99.8%	6%	5%
Xpress Group Intl. (11)	Common	0	0	0%	0%	0%
	Series C	99	0	0%	0%	0%
All Non-Officer and Directors Beneficial Owners	25,530,667	n/a	%	x%	x%	
ALL BENEFICIAL OWNERS	n/a	n/a	25,031,607,568	99.99%	x%	99

(1) Voting Rights are based on the conversion rights as of November 15, 2018 for the Series E and Series H Preferred Shares. Common stock has one vote per each share and no cumulative voting.

- (2) *Voting percentage is based on 233,158,484 shares of common stock as of November 15, 2018, and the full voting rights of Series E and H Preferred Shares if converted on November 15, 2018.*
- (3) *Gerald E. Commissiong is our Chief Executive Officer and President*
- (4) *John W. Commissiong is a Director and our Chief Science Officer*
- (5) *Steve Spence is a Director.*
- (6) *Robert L. Harris is a Director*
- (7) *Donald D. Huffman is a Director*
- (8) *Elise Brownwell is our Senior Vice President of Operations and Project Management*
- (9) *Mr. Heng Fai Chan is the principal for BMI Capital Partners Intl. Limited having an address at Unit B/17F, Greatmany Centre, 109-111 Queen's Rd. East, Wanchai Hong Kong*
- (10) *Dominick & Dickerman LLC and Dominick Membership LLC are affiliated companies. Dominick & Dickerman LLC is managed by Mr. Robert M. Hladek with offices at, 570 Lexington Ave, Suite 4200, New York NY 10022. Dominick Membership LLC represents a group having ownership in Dominick & Dickerman LLC and has offices at 1700 e. Putnam Avenuem Suite 202, Old Greenwich CT 06870*
- (11) *Xpress Group Intl. Ltd. is managed by Mr. Heng Fai Chan, with addresses at Unit B, Greatmany Center 109-111 Queen's Road East Wenchai Hong Kong Hong Kong*

DESCRIPTION OF CAPITAL

The following summary is a description of the material terms of our capital stock and is not complete. You should also refer to our articles of incorporation, as amended and our bylaws, as amended, which are included as exhibits to the registration statement of which this Offering Circular forms a part.

We are authorized to issue up to 250,000,000 shares of common stock, par value \$0.0001 per share.

As of the date of this offering, we have 233,158,484 shares of common stock outstanding.

Common Stock

Voting

Each holder of our common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. Any action at a meeting at which a quorum is present will be decided by a majority of the votes cast. Cumulative voting for the election of directors is not permitted.

Dividends

Holders of our common stock are entitled to receive dividends when, as and if declared by our Board of Directors out of funds legally available for payment, subject to the rights of holders, if any, of our preferred stock. Any decision to pay dividends on our common stock will be at the discretion of our Board of Directors. Our Board of Directors may or may not determine to declare dividends in the future. See "Dividend Policy." The Board's determination to issue dividends will depend upon our profitability and financial condition, and other factors that our Board of Directors deems relevant.

Liquidation Rights

In the event of a voluntary or involuntary liquidation, dissolution or winding up of our company, the holders of our common stock will be entitled to share ratably on the basis of the number of shares held in any of the assets available for distribution after we have paid in full all of our debts and after the holders of all outstanding preferred stock, if any, have received their liquidation preferences in full.

Preferred Stock

The Corporation is authorized to issue 1 0,000,000 shares of preferred stock, of which 250,000 shares of Series A Convertible Preferred Stock, 1 share of Series B Convertible Preferred Stock, 750,000 shares of Series C Convertible Preferred Stock, 13,335 shares of Series E Convertible Preferred Stock, 10,000 shares of Series G Preferred Stock and 25,000 shares of Series H Convertible Preferred Stock have been designated. For more details on the entire terms and conditions related to each Designation, please refer to the exhibits to this Prospectus. There are currently no shares of Series A Preferred Stock issued.

Series A

Each share of Series A Convertible Preferred Stock shall be convertible into a number of shares of Common Stock of the company that is equal to 0.1% of the total issued and outstanding common shares immediately prior to a listing on national (includes other financings leading to a minimum of \$3M raised).

There are currently 250 shares of Series A Preferred Stock outstanding.

Voting

No voting rights.

Dividends

No dividends.

Series B

Voting

Each holder of our common stock is entitled to vote on all matters submitted to shareholders of the Corporation in an amount equal to 24,999,999,999 shares of common stock for each one (1) share of Preferred Stock. Except as otherwise required by law or herein, the holders of shares of Preferred Stock shall vote together with the holders of Common Stock on all matters and shall not vote as a separate class.

Dividends

Holders of our common stock are entitled to receive dividends when, as and if declared by our Board of Directors out of funds legally available for payment, subject to the rights of holders, if any, of our preferred stock. Any decision to pay dividends on our common stock will be at the discretion of our Board of Directors. Our Board of Directors may or may not determine to declare dividends in the future. See "Dividend Policy." The Board's determination to issue dividends will depend upon our profitability and financial condition, and other factors that our Board of Directors deems relevant.

There are currently 249,999 shares of Series B Preferred Stock issued.

Series C

Voting

No Voting rights

Dividends

There are no dividend rights.

Conversion

Each share of Series C Convertible Preferred Stock shall be convertible into a number of shares of Common Stock of the company that is equal to 0.1% of the total issued and outstanding common shares of the Company immediately prior to the financing round concurrent with a listing of the Company's common stock upon the listing of the Common Stock of the Company on the NASDAQ, NYSE MKT or other national securities exchange in the United States or another country's national exchange, or (ii) upon the receipt by the Company of a written request for such conversion from the holders of at least 66 2/3% of the Series C Preferred Stock then outstanding (voting as a single class and on an as-converted basis).

Liquidation Preferences

In the event of any dissolution, liquidation or winding up of the Corporation (a "Liquidation"), whether voluntary or involuntary, the Holders of Series C Convertible Preferred Stock shall be entitled to participate in any distribution out of the assets of the Corporation on an equal basis per share with the holders of the Common Stock.

A sale of all or substantially all of the Corporation's assets or an acquisition of the Corporation by another entity by means of any transaction or series of related transactions (including, without limitation, a reorganization, consolidated or merger) that results in the transfer of fifty percent (50%) or more of the outstanding voting power of the Corporation (a "Change in Control Event"), shall not be deemed to be a Liquidation for purposes of this Designation.

There are currently no shares of Series C Preferred Stock issued.

Series D

Voting

Series D Preferred Stock has no voting rights.

Dividends

Series D Preferred Stock gets no dividends

Conversion

Each share of Series D Preferred Stock shall be convertible, face value \$1,000 per share, shall be convertible into shares of common stock of the Company upon the up-listing of the Company's common stock onto a national exchange, by dividing the value of each by the price of the Uplist financing. The Uplist can occur via another Reg A (another Reg A offering after this one is complete), via an S1 offering, via a private placement, or other financing method that immediately after completion results in the Company's common shares being listed on a national exchange.

Liquidation Preferences

No liquidation preference

There are currently no shares of Series D Preferred Stock issued.

Series E

Voting

No Voting Rights

Conversion

Each share of Preferred Stock shall be convertible, at any time after the Stock Exchange Uplisting and the passage of minimum time of any regulatory period for the shares being free to trade ("Free Trading Date") at the option of the Holder thereof, into that number of shares of Common Stock (subject to the limitations set forth in Section 6(d)) determined by dividing the Tranche Size by the Conversion Price that is applicable to the First Liquidation Interval or the Subsequent Liquidation Interval (capitalized terms being defined in the Amended Designation of Series E Preferred Stock attached hereto as an exhibit). The Conversion price shall be equal to the stated value, \$1,000 divided by the average trading price of the common stock as quoted on a national exchange for the previous 12 days.

There are currently 1,048.907 shares of Series E Preferred Stock issued.

Series H

Voting

Each holder of Series E Preferred Stock shall be entitled to vote on all matters submitted to shareholders of the Corporation and shall be entitled to such number of votes that is equal to the number of shares of Common Stock that each share of Series E Preferred Stock is convertible into; provided, however, that in connection with a vote by the shareholders of the Corporation on a proposal for a reverse stock split of the issued and outstanding Common Stock of the Corporation, each holder of Series E Preferred Stock agrees that the Corporation's Board of Directors can vote on his or her behalf. Except as otherwise required by law or herein, the holders of shares of Series E Preferred Stock shall vote together with the holders of Common Stock on all matters and shall not vote as a separate class.

Conversion

Each share of Preferred Stock shall be convertible, at any time after the Stock Exchange Uplisting and the passage of minimum time of any regulatory period for the shares being free to trade ("Free Trading Date") at the option of the Holder thereof, into that number of shares of Common Stock (subject to the limitations set forth in Section 6(d)) determined by dividing the Tranche Size by the Conversion Price that is applicable to the First Liquidation Interval or the Subsequent Liquidation Interval (capitalized terms being defined in the Amended Designation of Series E Preferred Stock attached hereto as an exhibit). The Conversion price shall be equal to the stated value, \$1,000 divided by the average trading price of the common stock as quoted on a national exchange for the previous 12 days.

There are currently 291.667 shares of Series H Preferred Stock issued.

Limitations on Liability and Indemnification of Officers and Directors

Nevada law authorizes corporations to limit or eliminate (with a few exceptions) the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties as directors. Our articles of incorporation and bylaws include provisions that eliminate, to the extent allowable under Nevada law, the personal liability of directors or officers for monetary damages for actions taken as a director or officer, as the case may be. Our articles of incorporation and bylaws also provide that we must indemnify and advance reasonable expenses to our directors and officers to the fullest extent permitted by Nevada law. We are also expressly authorized to carry directors' and officers' insurance for our directors, officers, employees and agents for some liabilities. We currently maintain directors' and officers' insurance covering certain liabilities that may be incurred by directors and officers in the performance of their duties

The limitation of liability and indemnification provisions in our articles of incorporation and bylaws may discourage stockholders from bringing a lawsuit against 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. In addition, your investment may be adversely affected to the extent that, in a class action or direct suit, we pay the costs of settlement and damage awards against directors and officers pursuant to the indemnification provisions in our articles of incorporation and bylaws.

There is currently no pending litigation or proceeding involving any of directors, officers or employees for which indemnification is sought.

Transfer Agent

The transfer agent for our common stock is V Stock Transfer, LLC.

SHARE ELIGIBLE FOR FUTURE SALE

Future sales of substantial amounts of our common stock in the public market after this offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through the sale of our equity securities. We are unable to estimate the number of shares of common stock that may be sold in the future.

Upon the completion of this offering, we will have a maximum of 761,384,788 outstanding shares of common stock if we complete the maximum offering hereunder. All of the shares sold in this offering will be freely tradable without restriction under the Securities Act unless purchased by one of our affiliates as that term is defined in Rule 144 under the Securities Act, which generally includes directors, officers or 5% stockholders.

Rule 144

Shares of our common stock held by any of our affiliates, as that term is defined in Rule 144 of the Securities Act, may be resold only pursuant to further registration under the Securities Act or in transactions that are exempt from registration under the Securities Act. In general, under Rule 144 as currently in effect, any of our affiliates would be entitled to sell, without further registration, within any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal about 252,504,841 shares if fully subscribed; or
- the average weekly trading volume of the unrestricted common stock during the four calendar weeks preceding the filing of a Form 144 with respect to the sale.

Sales under Rule 144 by our affiliates will also be subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

PLAN OF DISTRIBUTION

The Offering will be sold by our officers and directors.

This is a self-underwritten offering. This Offering Circular is part of an exemption under Regulation A that permits our officers and directors to sell the Shares directly to the public in those jurisdictions where the Offering Circular is approved, with no commission or other remuneration payable for any Shares sold. There are no plans or arrangements to enter into any contracts or agreements to sell the Shares with a broker or dealer. After the qualification by the Commission and acceptance by those states where the offering will occur, the Officer and Directors intends to advertise through personal contacts, telephone, and hold investment meetings in those approved jurisdiction only. We do not intend to use any mass-advertising methods such as the Internet or print media. Officers and Directors will also distribute the prospectus to potential investors at meetings, to their business associates and to his friends and relatives who are interested the Company as a possible investment, so long as the offering is in accordance with the rules and regulations governing the offering of securities in the jurisdictions where the Offering Circular has been approved. In offering the securities on our behalf, the Officers and Directors will rely on the safe harbor from broker dealer registration set out in Rule 3a4-1 under the Securities Exchange Act of 1934.

Terms of the Offering

The Company is offering on a best-efforts, self-underwritten basis a maximum of 100,000,000 shares of its common stock.

The Company is offering, on a best-efforts, self-underwritten basis, a maximum of 100,000,000 shares of its common stock at a fixed price to be determined upon qualification of the Form 1-A filing. The price shall be fixed for the duration of the offering, unless an amendment is properly filed with the Commission. There is no minimum investment required from any individual investor. The shares are intended to be sold directly through the efforts of our officers and directors. The shares are being offered for a period not to exceed 360 days. The offering will terminate on the earlier of: (i) the date when the sale of all shares is completed, or (ii) 360 days from the effective date of this document. For more information, see the section titled "Plan of Distribution" and "Use of Proceeds" herein.

VALIDITY OF COMMON STOCK

The validity of the securities offered hereby will be passed upon by Eilers Law Group, P.A.

EXPERTS

None

REPORTS

As a Tier 1, Regulation A filer, we are not required to file any reports.

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FOR THE PERIOD ENDED DECEMBER 31, 2016**

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AMARANTUS BIOSCIENCE HOLDINGS, INC.
BALANCE SHEET
(Unaudited)

	<u>December 31,</u> <u>2018</u>	<u>December 31,</u> <u>2017</u>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 829	\$ 51,352
Related party convertible notes receivable at fair value	34,213	598,695
Prepaid expenses and other current assets	719,775	792,580
Total current assets	<u>754,817</u>	<u>1,442,627</u>
Non-current assets:		
Investments in Avantat fair value	2,726,657	8,800,000
Intangible assets	1,256	-
Total non-current assets	<u>2,727,913</u>	<u>8,800,000</u>
TOTAL ASSETS	<u>\$ 3,482,730</u>	<u>\$ 10,242,627</u>
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 12,731,513	\$ 17,620,442
Notes payable	190,000	712,266
Convertible Notes	17,990,380	9,568,797
Share-settled debt	475,108	475,108
Total current liabilities	<u>31,387,001</u>	<u>28,376,613</u>
Total liabilities	<u>31,387,001</u>	<u>28,376,613</u>
Common and Preferred Stock	3,083,912	19,545,835
Additional paid-in capital	84,610,219	82,163,016
Accumulated deficit	(105,014,339)	(115,210,644)
Net Income	(10,584,063)	(4,632,193)
Total stockholders' equity	<u>(27,904,271)</u>	<u>(18,133,986)</u>
TOTAL STOCKHOLDERS' DEFICIT AND TEMPORARY EQUITY	<u>\$ 3,482,730</u>	<u>\$ 10,242,627</u>

AMARANTUS BIOSCIENCE HOLDINGS, INC.
STATEMENTS OF OPERATIONS
(Unaudited)

	<u>December 31,</u> <u>2018</u>	<u>December 31,</u> <u>2017</u>
Net revenues:	\$ -	\$ -
Operating expenses:		
Research and development	1,826	180
General and administrative	3,038,108	3,263,015
Total operating costs and expenses	<u>3,039,934</u>	<u>3,263,195</u>
Loss from operations	<u>3,039,934</u>	<u>3,263,195</u>
Other income (expense)		
Interest Income	26,458	54,544
Interest expense	(955,587)	(1,421,759)
Change in fair value	(6,615,000)	-
Other expense	-	(1,784)
Total other income (expense)	<u>(7,544,129)</u>	<u>(1,368,999)</u>
Net loss	<u>\$ (10,584,063)</u>	<u>\$ (4,632,194)</u>

AMARANTUS BIOSCIENCE HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT)
(Unaudited)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Par value	Shares	Par value			
Balance as of December 31, 2016	14,796	\$ 19,485,701	78,790,093	\$ 79,147	\$ 80,075,621	\$ (115,187,244)	\$ (15,546,775)
Series E Preferred stock converted in Common stock	(12)	(12,000)	636,605	637	11,363	-	-
Series H Preferred stock converted in Common stock	(65)	(65,000)	3,834,808	3,834	61,165	-	(1)
Issuance of Series F Preferred stock	250,000	250	-	-	24,750	-	25,000
Common stock issued for note conversion	-	-	40,544,786	41,843	989,388	-	1,031,231
Common stock issued for services	-	-	10,550,000	10,550	463,950	-	474,500
Converted dividend into Common stock	-	-	876,799	877	22,523	(23,400)	-
Repurchase of Common shares from Nevada	-	-	(2,250)	(2)	-	-	(2)
Stock based compensation	-	-	-	-	514,254	-	514,254
Net loss	-	-	-	-	-	(4,632,193)	(4,632,193)
Balance as of December 31, 2017	264,719	\$ 19,408,951	135,230,841	\$ 136,885	\$ 82,163,015	\$ (119,842,837)	\$ (18,133,986)
Series B Preferred stock issued	249,999	250	-	-	-	-	250
Series E Preferred stock exchanged for convertible notes	(5,086)	(5,085,511)	-	-	-	2,454,250	(2,631,261)
Forfeiture of Series E Preferred stock in exchange of tender exchange	(2,463)	(2,463,259)	-	-	-	2,148,120	(315,139)
Accretion of Series E Preferred stock redemption value	(1,556)	(1,556,364)	-	-	-	1,556,364	-
Write off of accrued dividend on Series E Preferred stock	-	-	-	-	-	879,455	879,455
Losses on notes payable	-	-	-	-	-	(29,940)	(29,940)
Debt discount on impact of tender exchange	-	-	-	-	-	2,958,334	2,958,334
Exchange of Series E & H into unsecured notes	(3,802)	(3,802,246)	-	-	-	-	(3,802,246)
Forfeiture of Series H Preferred stock in exchange of tender exchange	(1,617)	(1,617,250)	-	-	-	1,659,170	41,920
Accretion of Series H Preferred stock redemption value	(3,203)	(3,202,744)	-	-	-	3,202,744	-
Conversion of Series H Preferred stock into Common stock	(66)	(66,000)	2,384,825	2,385	63,615	-	-
Series C Preferred stock issued for services	(1)	(750)	-	-	-	-	(750)
Series I Preferred stock issued for services	300	300,000	-	-	-	-	300,000
Series I Preferred stock issued for interest	300	300,000	-	-	-	-	300,000
Series I Preferred stock issued	263	262,500	-	-	-	-	262,500
Series I Preferred stock issued for services	38	37,500	-	-	-	-	37,500
Series I Preferred stock issued	345	345,000	-	-	-	-	345,000
Series F Preferred stock issued	250,000	250	-	-	24,750	-	25,000
Common stock issued for services	-	-	18,100,000	18,100	934,847	-	952,947
Common stock issued for note conversion	-	-	66,960,284	54,729	1,058,694	-	1,113,423
Common stock issued to settle note payable	-	-	3,000,300	3,000	120,410	-	123,410
Common stock issued to settle note receivable	-	-	8,333,333	8,333	241,667	-	250,000
Common stock issued for interest conversion	-	-	152,599	153	3,221	-	3,374
Net loss	-	-	-	-	-	(10,584,063)	(10,584,063)
Balance as of December 31, 2018	748,169	2,860,327	234,162,182	223,585	84,610,219	(115,598,403)	(27,904,272)

AMARANTUS BIOSCIENCE HOLDINGS, INC.
STATEMENTS OF CASH FLOWS
(Unaudited)

	December 31, 2018	December 31, 2017
Cash flows from operating activities		
Net loss	\$ (10,584,063)	\$ (4,632,194)
Adjustments to reconcile net loss to net cash used in operating activities		
Accrued interest	(1,508,757)	1,232,751
Dividends payable	(1,039,012)	-
Common stock issued for compensation	-	514,254
Accretion of preferred E redemption value	(1,556,364)	-
Accretion of preferred H redemption value	(3,202,744)	-
Deemed Dividends on preferred stock	14,828,497	(23,400)
Changes in operating assets and liabilities:	-	-
Prepaid expenses and other current assets	85,605	835,762
Note receivable	485,022	86,000
Change in fair value of investments	6,073,343	17,240
Accounts payable and accrued expenses	696,634	1,123,002
Net cash used in operating activities	14,862,224	4,891,371
Cash flows from investing activities		
Acquisition of Intellectual Property	(3,456)	-
Net cash used in investing activities	(3,456)	0
Cash flows from financing activities		
Issuance of senior convertible notes	6,695,354	277,380
Issuance of unsecured notes	8,854,596	-
Repayment of convertible notes	(7,138,967)	(56,000)
Repayment of notes payable	(522,265)	(914,295)
Conversion of Preferred E shares	-	(12,000)
Conversion of Preferred H shares	-	(65,000)
Debt discount	3,780,225	(12,500)
Derivative liability	(3,204,177)	-
Warrant liability	(3,534,381)	-
Preferred share exchange series E	(5,085,511)	-
Preferred share exchange series H	(3,769,085)	-
Forfeiture of Series E preferred shares	(2,454,250)	-
Forfeiture of Series H preferred shares	(1,725,170)	-
Additional paid in capital	2,447,204	1,573,141
Proceeds from issuance of convertible preferred stock	1,244,500	250
Proceeds from issuance of common stock	86,700	57,739
Net cash provided by financing activities	(4,325,227)	848,715
Net increase in cash and cash equivalents	(50,523)	2,129
Cash and cash equivalents, beginning of the period	51,352	49,221
Cash and cash equivalents, end of the period	\$ 829	\$ 51,352

AMARANTUS BIOSCIENCE HOLDINGS, INC.
NOTES TO FINANCIAL STATEMENTS
(Unaudited)

Note 1 – Organization and Description of Business

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

Note 2 – Going Concern

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

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

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”), which contemplate continuation of the Company as a going concern.

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

Note 3 – Summary of Significant Accounting Policies

Significant Accounting Policies - There have been no material changes in the Company’s significant accounting policies, other than the Fair Value of Convertible Notes Receivable, to those previously disclosed in the 2015 Annual Report.

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

Basis of Presentation - The Financial Statements and related disclosures have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). The Financial Statements have been prepared using the accrual basis of accounting in accordance with Generally Accepted Accounting Principles (“GAAP”) of the United States (See Note 2) regarding the assumption that the Company is a “going concern”.

Development Stage Company - The Company is a development stage company as defined by section 915-10-20 of the FASB Accounting Standards Codification. The Company is still devoting substantially all of its efforts on establishing the business. Its planned principal operations have not commenced. All losses accumulated since inception have been considered as part of the Company’s development stage activities.

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

Research and Development Expenditures - Research and development costs are expensed as incurred. Research and development costs include salaries and personnel-related costs, consulting fees, fees paid for contract research services, fees paid to clinical research organizations and other third parties associated with clinical trials, the costs of laboratory equipment and facilities, and other external costs. The Company incurred approximately \$1,826 and \$180 on research and development costs for the year ended December 31, 2018 and 2017, respectively.

Investments – Investments in entities where the Company can exercise significant influence, but not control, is classified as an equity investment and accounted for using the fair value option.

Recent Accounting Pronouncements

Except for rules and interpretive releases of the SEC under authority of federal securities laws and a limited number of grandfathered standards, the FASB Accounting Standards Codification™ (“ASC”) is the sole source of authoritative GAAP literature recognized by the FASB and applicable to the Company. We have reviewed the FASB issued Accounting Standards Update (“ASU”) accounting pronouncements and interpretations thereof that have effectiveness dates during the periods reported and in future periods. The Company has carefully considered the new pronouncements that alter previous generally accepted accounting principles and does not believe that any new or modified principles will have a material impact on the corporation’s reported financial position or operations in the near term. The applicability of any standard is subject to the formal review of our financial management and certain standards are under consideration.

Note 4 – Net Loss per share

The Company computes basic and diluted earnings per share amounts in accordance with ASC Topic 260, Earnings per Share. Basic earnings per share is computed by dividing net income (loss) available to common shareholders by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share reflects the potential dilution that could occur if stock options and other commitments to issue common stock were exercised or equity awards vest resulting in the issuance of common stock that could share in the earnings of the Company.

Note 5 – Fair Value of Financial Instruments

The Company’s balance sheet includes certain financial instruments. The carrying amounts of current assets and current liabilities approximate their fair value because of the relatively short period of time between the origination of these instruments and their expected realization.

The Company follows FASB Accounting Standards Codification (ASC) 820 “Fair Value Measurements and Disclosures” which defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy that distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity’s own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs).

The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable. Fair value estimates discussed herein are based upon certain market assumptions and pertinent information available to management as of November 30, 2016. The respective carrying value of certain on-balance-sheet financial instruments approximated their fair values due to the short-term nature of these instruments. These financial instruments include accounts receivable, other current assets, accounts payable, accrued compensation and accrued expenses. The fair value of the Company’s notes payable is estimated based on current rates that would be available for debt of similar terms which is not significantly different from its stated value.

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

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

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

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

Note 6 – Notes Payable

As of December 31, 2018, the Company had notes payable in the aggregate amount of \$166,600 outstanding.

On January 4th, 2018, Amarantus BioScience Holdings, Inc. (the “Company”) issued a 12% Senior Secured Convertible Note (the “Secured Note”) to Xpress Group International Limited (the “Investor”) in the principal amount of \$15,000 pursuant to a Securities Purchase Agreement dated January 4th, 2018 (the “SPA”).

On January 23rd, 2018, Amarantus BioScience Holdings, Inc. (the “Company”) issued a 12% Senior Secured Convertible Note (the “Secured Note”) to CK Pappardelle (the “Investor”) in the principal amount of \$25,000 pursuant to a Securities Purchase Agreement dated January 23rd, 2018 (the “SPA”).

On the Maturity Date, all outstanding principal and accrued and unpaid interest shall be converted into Company common stock.

Share Settled Debt – No activity in the year ended December 31, 2018

Secured Notes	Principle	OID	Interest	Issuance	Maturity	Conversion Discount
<i>Dominion</i>	\$ 144,245	0	12%	7/10/2015	3/30/2020	40% discount to Market
<i>KDL Holdings</i>	\$ 150,000	0	12%	11/2/2017	7/5/2018	35% discount to Market
<i>Fairmont Advisors</i>	\$ 25,000	0	8%	9/25/2018	10/25/2018	No conversion
<i>Roger Challen</i>	\$ 222,500	10%	15%	2/2/2019	2/2/2020	\$0.02
<i>Dominion</i>	\$ 2,313,244	0	0%	3/28/2018	3/30/2020	Uplist Price
<i>Delafield</i>	\$ 3,544,445	0	0%	3/28/2018	3/30/2020	Uplist Price
<i>Anson</i>	\$ 883,778	0	0	3/28/2018	3/30/2020	Uplist Price
	\$ 7,283,212					
Unsecured Debt						
<i>Dominion</i>	\$ 3,923,235	0	0	3/28/2018	3/30/2020	Uplist Price
<i>Delafield</i>	\$ 1,189,772	0	0	3/28/2018	3/30/2020	Uplist Price
<i>Anson</i>	\$ 2,013,000	0	0	3/28/2018	3/30/2020	Uplist Price
<i>International Infusion</i>	\$ 828,661	0	0	3/28/2018	3/30/2020	Uplist Price
<i>Lincoln Park Capital</i>	\$ 491,028	0	0	3/28/2018	3/30/2020	Uplist Price
<i>Vivacitas Oncology</i>	\$ 408,900	0	0	3/28/2018	3/30/2020	Uplist Price
<i>Betterhalf Bloodstock</i>	\$ 187,500	0	0	3/28/2018	3/30/2020	Uplist Price
<i>Gemini</i>	\$ 75,000	0	0	3/28/2018	3/30/2020	Uplist Price
<i>EMA Financial</i>	\$ 125,000	10%	10%	9/4/2019	6/4/2020	60% Discount to Market
<i>GPL Ventures</i>	\$ 75,000	0	5%	5/14/2019	5/14/2020	50% Discount to Market
<i>GHS Pref Payoff</i>	\$ 945,000	0	12%	5/24/2019	3/30/2020	\$0.07
<i>GHS Pref Convert</i>	\$ 772,036	0	12%	5/24/2019	3/30/2020	\$0.07
	\$ 11,034,132					
	\$ 18,317,344					

2020 Notes Payable

Date	Description	Name	Amount
12/31/2017	Beginning Balance		712,265.00
1/4/2018	Note Payable of \$50,000 issued on 01/04/18	KDL Holdings LLC	25,000.00
1/23/2018	Note Payable of \$50,000 issued on 01/23/18	C K Papardelle	15,000.00
2/21/2018	Converting Note and accrued Interest into 12% secured convertible Note	GEMG Note	(560,705.00)
3/30/2018	Avant Note written off and 1,000,000 common stock issued	Avant Diagnostics, Inc.	(26,560.00)
3/31/2018	Ending Balance		<u>165,000.00</u>
6/30/2018	Ending Balance		<u>165,000.00</u>
9/24/2018	Advance from Fairmont Adviosry	Fairmont Advisor	25,000.00
9/30/2018	Ending Balance		<u>190,000.00</u>
12/31/2018	Ending Balance		<u>190,000.00</u>
3/31/2019	Ending Balance		<u>190,000.00</u>
4/24/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,200.00
5/6/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,300.00
5/9/2019	Convertible Note with 10% OID	Challen, Roger	37,750.00
5/30/2019	Payment to Fairmont Adviosry	Fortitude Advisors LLC	(56,000.00)
5/30/2019	Payment to Fairmont Adviosry	Fortitude Advisors LLC	(2,000.00)
5/30/2019	12% Convertible Note	GPL Ventures LLC	75,000.00
5/31/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	14,000.00
6/3/2019	Payment to Fairmont Adviosry	Fortitude Advisors LLC	(24,000.00)
6/3/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	24,000.00
6/3/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	28,000.00
6/10/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	2,000.00
6/12/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,500.00
6/12/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	2,000.00
6/13/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	3,500.00
6/13/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	5,000.00
6/21/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,000.00
6/25/2019	WIRE TYPE:WIRE IN DATE: 190625 TIME:0929 ET TRN:2019062500275436 SEQ:3985900176ES/006858 ORIG:BR...	Breakthrough Diagnostics	25,000.00
6/30/2019	Ending Balance		<u>329,250.00</u>

2031 Convertible Notes

Date	Description	Name	Amount
12/31/2017	Beginning Balance		9,069,333.22
2/21/2018	Converting Note and accrued Interest into 12% secured convertible Note	GEMG Note	718,823.81
2/27/2018	Converting principal portion of GEMG note to GHS	GEMG Note	(560,705.00)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Delafield Investments Ltd.	(3,544,445.00)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Dominion Capital LLC	(2,313,244.00)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Anson Investment	(883,778.00)
3/26/2018	True up the outstanding balance of the note per client_Tender Exchange	Delafield Investments Ltd.	(20,278.00)
3/26/2018	True up the outstanding balance of the note per client_Tender Exchange	Dominion Capital LLC	(27,222.22)
3/31/2018	Ending Balance		<u>2,438,484.81</u>
4/13/2018	Converting Note Payable to Secured convertible Note	GEMG Note	(158,118.81)
5/10/2018	Converting Senior secured note to Common stock	Xpress Group International	(175,000.00)
5/10/2018	Converting Senior secured note to Common stock	Dominick & Dickerman LLC	(75,000.00)
5/10/2018	Converting Senior secured note to Common stock	Xpress Group International	(100,000.00)
6/30/2018	Ending Balance		<u>1,930,366.00</u>
9/30/2018	Ending Balance		<u>1,930,366.00</u>
12/31/2018	Ending Balance		<u>1,930,366.00</u>
1/4/2019	Issued Convertible Promissory Note	Challen, Roger	157,500.00
2/1/2019	Issued Convertible Promissory Note	Challen, Roger	53,000.00
3/31/2019	Ending Balance		<u>2,140,866.00</u>
5/8/2019	Converted 41 shares of Series E and Legal fees into 12% Convertible Promissory Note	GPL Ventures LLC	75,000.00
5/22/2019	Converted portion of Note into common stock	GPL Ventures LLC	(20,000.00)
5/24/2019	Converted 250 shares of series I into 12% Convertible Promissory Note	GHS	772,036.00
6/3/2019	Converted portion of Note into common stock	GPL Ventures LLC	(25,000.00)
6/24/2019	Converted Note into common stock	GPL Ventures LLC	(30,000.00)
6/24/2019	Converted 945 shares of Series I into 12% Convertible Promissory Note	GHS	945,000.00
6/30/2019	Ending Balance		<u>3,857,902.00</u>

2038 Unsecured Convertible Notes

Date	Description	Name	Amount
12/31/2017	Beginning Balance		-
3/26/2018	Exchanging Series E into unsecured note_ Tender Exchange	Dominion Capital LLC	3,923,235.00
3/26/2018	Exchanging Series E into unsecured note_ Tender Exchange	Lincoln Park Capiotal Fund, LLC	491,028.00
3/26/2018	Exchanging Series E & H into unsecured note_ Tender Exchange	International Infusion, LP	828,661.00
3/26/2018	Exchanging Series H into unsecured note_ Tender Exchange	vivacitas Oncology Inc.	408,900.00
3/26/2018	Exchanging Series H into unsecured note_ Tender Exchange	Delafield Investments Ltd.	1,189,772.00
3/26/2018	Exchanging Series H into unsecured note_ Tender Exchange	Anson Investment	2,013,000.00
3/31/2018	Ending Balance		<u>8,854,596.00</u>
6/30/2018	Ending Balance		<u>8,854,596.00</u>
9/30/2019	Ending Balance		<u>8,854,596.00</u>
12/31/2018	Ending Balance		<u>8,854,596.00</u>
3/31/2019	Ending Balance		<u>8,854,596.00</u>
6/30/2019	Ending Balance		<u>8,854,596.00</u>

2037 Senior Secured Convertible Note

Date	Description	Name	Amount
12/31/2017	Beginning Balance		277,380.48
2/27/2018	Converting principal portion of GEMG note to GHS	GHS	560,705.00
2/27/2018	Converting portion of note to 1,000,000 shares of common stock	GHS	(56,250.00)
3/13/2018	Converting portion of Secured convertible note	GHS	(50,253.12)
3/22/2018	Converting portion of Secured convertible note	GHS	(50,233.56)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Delafield Investments Ltd.	3,544,445.00
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Dominion Capital LLC	2,313,244.00
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Anson Investment	883,778.00
3/29/2018	Converting portion of Secured convertible note	GHS	(63,120.32)
3/31/2018	Ending Balance		<u>7,359,695.48</u>
4/6/2018	Converting Secured convertible Note to common stock	GHS	(63,153.52)
4/13/2018	Converting Secured convertible Note to common stock	GHS	(47,398.42)
4/13/2018	Converting Note Payable to Secured convertible Note	GHS	158,118.81
5/2/2018	Converting Secured convertible Note to common stock	GHS	(52,623.74)
5/7/2018	Converting Secured convertible Note to common stock	GHS	(54,498.01)
5/15/2018	Converting Secured convertible Note to common stock	GHS	(68,072.66)
5/29/2018	Converting Secured convertible Note to common stock	GHS	(91,268.60)
6/7/2018	Converting Secured convertible Note to common stock	GHS	(33,839.16)
6/13/2018	Converting portion of Interest into common stock	Dominion Capital LLC	(17,105.12)
6/15/2018	Converting Secured convertible Note to common stock	GHS	(88,112.69)
6/30/2018	Ending Balance		<u>7,001,742.37</u>
7/5/2018	Converting portion of Interest into common stock	Dominion Capital LLC	(29,007.65)
9/30/2018	Ending Balance		<u>6,972,734.72</u>
12/31/2018	Ending Balance		<u>6,972,734.72</u>
3/31/2019	Ending Balance		<u>6,972,734.72</u>
6/30/2019	Ending Balance		<u>6,972,734.72</u>

Note 7 – Stockholder’s Equity

In 6 months ended December 31, 2018, company issued 5,700,000 shares to various investors

Note 8 – Temporary Equity

Series E Preferred Stock

The following table summarizes the Company’s Series E Preferred Stock activities for the year ended December 31, 2018 (amount in thousands):

	Series E convertible preferred stock	
	Shares	Par value
Balances as of January 1, 2018	8,274	\$ 10,243
Series E preferred stock converted into convertible notes payable	(5,086)	(5,086)
Balance as of December 31, 2018	3,188	\$ 5,157

Series H Preferred Stock

The following table summarizes the Company’s Series H Preferred Stock activities for the year ended December 31, 2018 (amount in thousands):

	Series H convertible preferred stock	
	Shares	Par value
Balances as of January 1, 2018	5,672	\$ 9,152
Series H preferred stock converted into convertible notes payable	(3,769)	(3,769)
Balance as of December 31, 2018	1,903	\$ 5,383

Note 9 – Related Party Transactions

Notes Payable

The Company has a demand promissory note with Neurotrophics, which is due 365 days upon demand of the holder. At the option of the Company, the note and the accrued interest owed can be repaid by issuing shares of its common stock based on the closing price of the Company’s common stock on the day of the conversion. The conversion price if converted on December 31, 2018 would be \$0.05 related to the note and accrued interest on the note and would convert to approximately 5.2 million shares.

Note 10 – Subsequent Event

On November 8, 2017, the Company issued the holder the Note which matures on July 5, 2018 and is convertible into shares of the Company's common stock at any time after the issuance date at a price per share equal to 75% of the lowest volume weighted average price for the ten trading days prior to and the ten trading days following the date of conversion. The holder of the Note may not convert such Note if, upon conversion, the holder together with its affiliates would beneficially own more than 4.99% of the Company's issued and outstanding common stock; provided, however, such beneficial ownership limitation may be increased or decreased at any time but in no event shall exceed 9.99% of the Company's issued and outstanding common stock. As long as any portion of the Note remains outstanding, the Company may not, without the consent of holders of at least 51% of the principal amount of the then outstanding Note, (i) enter into, create, incur, assume, guarantee or suffer to exist any indebtedness for borrowed money of any kind except for Permitted Indebtedness (as defined in the Note), (ii) enter into, create, incur, assume or suffer to exist any Liens (as defined in the Note) of any kind, on or with respect to any of its property or assets now owned or hereafter acquired or any interest therein or any income or profits therefrom except for Permitted Liens (as defined in the Note), (iii) except for an amendment to its outstanding preferred stock, amend its charter documents in any manner that materially and adversely affects any rights of the holder of the Note, (iv) repay, repurchase or offer to repay, repurchase or otherwise acquire more than a de minimis number of shares of its common stock or common stock equivalents other than as to the Conversion Shares (as defined in the Note) or Warrant Shares (as defined in the Note), (v) redeem, defease, repurchase, repay or make any payments in respect of, by the payment of cash or cash equivalents, all or any portion of any Indebtedness (as defined in the Note) (other than the Note if on a pro-rata basis), whether by way of payment in respect of principal of (or premium, if any) or interest on, such Indebtedness, including Permitted Indebtedness from and after the occurrence of an event of default, (vi) declare or make any dividend or other distribution of its assets or rights to acquire its assets to holders of shares of common stock, (vii) issue any common stock or common stock equivalents except as permitted pursuant to the SPA, (viii) enter into any transaction with any affiliate of the Company, unless such transaction is made on an arm's-length basis and expressly approved by a majority of the disinterested directors of the Company or (vii) enter into any agreement with respect to any of the foregoing.

Pursuant to the terms of the SPA, on November 6, 2017, Gerald Commissiong, the President and Chief Executive Officer of the Company executed a Stock Pledge Agreement pursuant to which Gerald Commissiong granted to the holder of the Note, a first priority lien and security interest in 5 million shares of common stock of Avant Diagnostics Inc., a Nevada corporation. In addition, on November 6, 2017, Gerald Commissiong executed a Personal Guaranty for the benefit of the holder of the Note, up to \$100,000.

On November 3, 2017, the Company entered into the Third Amendment to Intercreditor and Subordination Agreement (the "Third Amendment") to amend such agreement to include \$100,000 invested pursuant to the SPA.

Pursuant to the SPA, the Company issued a secured convertible note in the principal amount of \$100,000. The details of this transaction are described in Item 1.01, which is incorporated by reference, in its entirety, into this Item 3.02. The issuance of the Note was deemed to be exempt from the registration requirements of the Securities Act of 1933, as amended, by virtue of Section 4(a)(2) thereof and Rule 506 of Regulation D thereunder, as a transaction by an issuer not involving a public offering.

On December 4, 2017, the Company filed an Amended and Restated Certificate of Designation, Preferences, Rights and Limitations of Series B Convertible Preferred Stock (the "Certificate of Designation") with the Nevada Secretary of State. The Certificate of Designation authorizes one share of Series B Preferred Stock with a stated value of \$1,000. Each holder of Series B Preferred Stock shall have the right to vote on all matters submitted to the shareholders of the Company in an amount equal to 24,999,999,999 shares of common stock for each one share of Series B Preferred Stock. The Series B Preferred Stock shall not be subject to any stock split or stock dividend. So long as the Series B Preferred Stock is outstanding, the Company may not issue additional shares of any series of preferred stock without the prior written consent of the Series B Preferred Stock holder. In addition, the Company may not, without the holder of at least 67% in stated value of the then outstanding Series B Preferred Stock, (i) amend its charter documents in any manner that materially and adversely affects any rights of the Series B Preferred Stock Holder, (ii) repay, repurchase or offer to repay, repurchase or otherwise acquire more than a de minimis number of shares of the Company's securities, (iii) pay cash dividends or distributions on Junior Securities (as defined in the Certificate of Designation) or (iv) enter into any agreement with respect to any of the foregoing.

On December 4, 2017, the Company issued one share of Series B Preferred Stock to Gerald Commissiong.

On October 12, 2017 the Company entered into a letter of intent (the “LOI”) with certain debt holders, Series E Preferred Stock Holders (the “Series E Holders”) and Series H Preferred Stock Holders (the “Series H Holders”) and together with the Series E Holders, the “Equity Holders”) as specified therein. Pursuant to the LOI, the Company will issue (i) the debt holders secured convertible notes (the “Debt Holder Notes”) in exchange for the outstanding principal amount of the original notes (the “Original Notes”) held by such debt holders and the cancellation of warrants issued therewith and (ii) the Equity Holders unsecured convertible notes (the “Equity Holder Notes” and together with the Debt Holder Notes, the “New Convertible Notes”) in exchange for the outstanding stated value of such preferred stock together with the surrender of all warrants issue in connection with the preferred stock, in each case with no variable rate pricing mechanisms (the “Tender Exchange”). The principal amount of the Debt Holder Notes shall equal to 80% of the unpaid principal amount of the Original Notes and the principal amount of the Equity Holder Notes shall be equal to 75% of the outstanding stated value of the preferred stock.

The New Convertible Notes shall be non-interest bearing and shall mature nine months from the date of the closing of the Tender Exchange, and may be extendable in the event the uplist occurs as contemplated in the LOI. The New Convertible Notes shall be convertible into shares of the Company’s common stock, beginning nine (9) months after after the uplist of the Company’s common stock to NASDAQ or the New York Stock Exchange at a price per share equal to or greater than the price per share required for such uplist (the “Uplist Price”). After such uplist, the New Convertible Notes conversion amount shall be the Tranche Size divided by the average price per share of the Company’s common stock for the immediately preceding 12 trading days (with such share price subject to an increase cap of 250% of the Uplist Price). “Tranche Size” means 25% of the of the New Convertible Notes’ principal amount.

Holders of the New Convertible Notes may only sell such number of securities equal to no more than 5% (subject to a minimum of 0.3125%) of the average trading volume for the prior five trading days multiplied by the Tranche Size per day (the “Liquidation Limit”). Holders of the New Convertible Notes may liquidate the maximum Tranche Size upon the earlier of (i) nine months from the closing date of the Tender Exchange and (ii) the first day upon which the Company’s securities close at a price per share which is greater than 150% of the Uplist Price and subsequently at four month intervals thereafter (each a “Liquidation Interval”). Any unused portion of the Tranche Size may be rolled into and eligible during the next Liquidation Interval. If the holder of the New Convertible Notes sells shares of common stock issuable upon conversion of such notes in excess of the Liquidation Limit, then the Company shall have a right of first refusal to purchase such shares at a price equal to the average closing price per share for the prior five trading days.

The foregoing descriptions of the LOI is not complete and is qualified in its entirety by reference to the full text of the LOI which is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated by reference herein.

On October 18, 2017, the Company received a notice of conversion from BMI Capital Intl pursuant to which such investor converted \$500,000 of the principal amount of a convertible note into 20 million shares of the Company’s common stock at a price of \$0.025 per share.

On November 13, 2017, the Company received a notice of conversion from Dominick & Dickerman, LLC pursuant to which such investor converted \$500,000 of the principal amount of a convertible note into 20 million shares of the Company’s common stock at a price of \$0.025 per share.

AMARANTUS BIOSCIENCE HOLDINGS, INC.
BALANCE SHEET
(Unaudited)

	June 30, 2019	June 30, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 178	\$ 94
Related party convertible notes receivable at fair value	34,213	34,213
Prepaid expenses and other current assets	748,275	794,780
Total current assets	782,666	829,087
Non-current assets:		
Investment in Avantat fair value	2,726,657	9,341,657
Investment in Toddos Medical	2,026,183	-
Intangible assets	1,256	1,256
Total non-current assets	4,754,096	9,342,913
TOTAL ASSETS	\$ 5,536,762	\$ 10,172,000
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 14,819,860	\$ 12,428,631
Notes payable	329,250	165,000
Convertible Notes	19,915,466	18,018,387
Share-settled debt	475,109	475,109
Total current liabilities	35,539,685	31,087,127
Total liabilities	35,539,685	31,087,127
Common and Preferred Stock	1,852,635	3,056,258
Additional paid-in capital	85,116,472	84,513,758
Accumulated deficit	(116,147,940)	(105,014,341)
Net Income	(824,090)	(3,470,802)
Total stockholders' equity	(30,002,923)	(20,915,127)
TOTAL STOCKHOLDERS' DEFICIT AND TEMPORARY EQUITY	\$ 5,536,762	\$ 10,172,000

AMARANTUS BIOSCIENCE HOLDINGS, INC.
STATEMENTS OF OPERATIONS
(Unaudited)

	<u>June 30,</u> <u>2019</u>	<u>June 30,</u> <u>2018</u>
Net revenues:	\$ -	\$ -
Operating expenses:		
Research and development	611	1,827
General and administrative	873,479	2,528,415
Total operating costs and expenses	<u>874,090</u>	<u>2,530,242</u>
Loss from operations	<u>874,090</u>	<u>2,530,242</u>
Other income (expense)		
Interest Income	50,000	11,653
Interest expense	-	(952,213)
Total other income (expense)	<u>50,000</u>	<u>(940,560)</u>
Net loss	<u>\$ (824,090)</u>	<u>\$ (3,470,802)</u>

AMARANTUS BIOSCIENCE HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT)
(Unaudited)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Par value	Shares	Par value			
Balace as of December 31, 2016	14,796	\$ 19,485,701	78,790,093	\$ 79,147	\$ 80,075,621	\$ (115,187,244)	\$ (15,546,775)
Series E Preferred stock converted in Common stock	(12)	(12,000)	636,605	637	11,363	-	-
Series H Preferred stock converted in Common stock	(65)	(65,000)	3,834,808	3,834	61,165	-	(1)
Issuance of Series F Preferred stock	250,000	250	-	-	24,750	-	25,000
Common stock issued for note conversion	-	-	40,544,786	41,843	989,388	-	1,031,231
Common stock issued for services	-	-	10,550,000	10,550	463,950	-	474,500
Converted dividend into Common stock	-	-	876,799	877	22,523	(23,400)	-
Repurchase of Common shares from Nevada	-	-	(2,250)	(2)	-	-	(2)
Stock based compensation	-	-	-	-	514,254	-	514,254
Net loss	-	-	-	-	-	(4,632,193)	(4,632,193)
Balace as of December 31, 2017	264,719	\$ 19,408,951	135,230,841	\$ 136,885	\$ 82,163,015	\$ (119,842,837)	\$ (18,133,986)
Series B Preferred stock issued	249,999	250	-	-	-	-	250
Series E Preferred stock exchanged for convertible notes	(5,086)	(5,085,511)	-	-	-	2,454,250	(2,631,261)
Forfeiture of Series E Preferred stock in exchange of tender exchange	(2,463)	(2,463,259)	-	-	-	2,148,120	(315,139)
Accretion of Series E Preferred stock redemption value	(1,556)	(1,556,364)	-	-	-	1,556,364	-
Write off of accrued dividend on Series E Preferred stock	-	-	-	-	-	879,455	879,455
Losses on notes payable	-	-	-	-	-	(29,940)	(29,940)
Debt discount on impact of tender exchange	-	-	-	-	-	2,958,334	2,958,334
Exchange of Series E & H into unsecured notes	(3,802)	(3,802,246)	-	-	-	-	(3,802,246)
Forfeiture of Series H Preferred stock in exchange of tender exchange	(1,617)	(1,617,250)	-	-	-	1,659,170	41,920
Accretion of Series H Preferred stock redemption value	(3,203)	(3,202,744)	-	-	-	3,202,744	-
Conversion of Series H Preferred stock into Common stock	(66)	(66,000)	2,384,825	2,385	63,615	-	-
Series C Preferred stock issued for services	(1)	(750)	-	-	-	-	(750)
Series I Preferred stock issued for services	300	300,000	-	-	-	-	300,000
Series I Preferred stock issued for interest	300	300,000	-	-	-	-	300,000
Series I Preferred stock issued	263	262,500	-	-	-	-	262,500
Series I Preferred stock issued for services	38	37,500	-	-	-	-	37,500
Series I Preferred stock issued	345	345,000	-	-	-	-	345,000
Series F Preferred stock issued	250,000	250	-	-	24,750	-	25,000
Common stock issued for services	-	-	18,100,000	18,100	934,847	-	952,947
Common stock issued for note conversion	-	-	66,960,284	54,729	1,058,694	-	1,113,423
Common stock issued to settle note payable	-	-	3,000,300	3,000	120,410	-	123,410

Common stock issued to settle note receivable	-	8,333,333	8,333	241,667	-	250,000	
Common stock issued for interest conversion	-	152,599	153	3,221	-	3,374	
Net loss	-	-	-	-	(10,584,063)	(10,584,063)	
Balance as of December 31, 2018	748,169	2,860,327	234,162,182	223,585	84,610,219	(115,598,403)	(27,904,272)
Series E Preferred stock exchanged for convertible notes	28	27,500			(27,500)	-	
Exchange of Series E & I into unsecured notes	(1,286)	(1,286,000)	-	-	-	(1,286,000)	
Common stock issued for services	-	19,350,000	19,350	2,500	-	21,850	
Common stock issued for note conversion	-	7,872,606	7,873	503,752	(522,037)	(10,412)	
Net loss	-	-	-	-	(824,090)	(824,090)	
Balance as of June 30, 2019	746,910	\$ 1,601,827	252,504,841	\$ 250,808	\$ 85,116,471	\$ (116,972,030)	\$ (30,002,924)

AMARANTUS BIOSCIENCE HOLDINGS, INC.
STATEMENTS OF CASH FLOWS
(Unaudited)

	June 30, 2019	June 30, 2018
Cash flows from operating activities		
Net loss	\$ (824,090)	\$ (3,470,802)
Adjustments to reconcile net loss to net cash used in operating activities		
Accrued interest	-	(1,497,424)
Dividends payable	-	(1,039,012)
Accretion of preferred E redemption value	-	(1,556,364)
Accretion of preferred H redemption value	-	(3,202,744)
Retained earnings	-	14,828,497
Changes in operating assets and liabilities:		
Note receivable	-	485,023
Accounts payable and accrued expenses	2,085,897	392,016
Net cash used in operating activities	2,085,897	8,409,992
Cash flows from investing activities		
Investment in Todos Medical	(2,026,183)	-
Acquisition of intellectual property	-	(1,256)
Acquisition of other assets	-	(543,857)
Net cash used in investing activities	(2,026,183)	(545,113)
Cash flows from financing activities		
Issuance of senior convertible notes	1,927,536	6,724,362
Issuance of unsecured notes	139,250	8,854,596
Repayment of convertible notes	-	(7,138,967)
Repayment of notes payable	(28,500)	(547,265)
Debt discount	-	3,780,225
Derivative liability	-	(3,204,178)
Warrant liability	-	(3,534,381)
Preferred share exchange series E	(13,500)	(5,085,511)
Preferred share exchange series H	-	(3,769,085)
Forfeiture of Series E preferred shares	(27,500)	(2,454,250)
Forfeiture of Series H preferred shares	-	(1,659,170)
Preferred share exchange series I	(1,245,000)	
Additional paid in capital	(15,784)	2,350,742
Proceeds from issuance of convertible preferred stock	-	1,154,500
Proceeds from issuance of common stock	27,224	83,046
Net cash provided by financing activities	763,726	(4,445,336)
Net increase in cash and cash equivalents	(651)	(51,260)
Cash and cash equivalents, beginning of the period	829	51,352
Cash and cash equivalents, end of the period	\$ 178	\$ 94

AMARANTUS BIOSCIENCE HOLDINGS, INC.
NOTES TO FINANCIAL STATEMENTS
(Unaudited)

Note 1 – Organization and Description of Business

Our Company

Amarantus Bioscience Holdings (“AMBS” or “The Company”) is a biotechnology holding company developing treatments and diagnostics for diseases in the areas of neurology, regenerative medicine and orphan diseases through our subsidiaries. The Company’s new Hemp-focused business plan via wholly-owned subsidiary Hemp BioHealth, Inc. to focus on neurological applications for inhalable non-psychoactive cannabinoid products, and our biotechnology portfolio which consists of Engineered Skin Substitute (autologous full thickness skin grating), MANF (neurotrophic factor protein for ophthalmology and Parkinson’s), PhenoGuard (neurotrophic factor discovery platform), eltoprazine (serotonin agonist for CNS disorders, including Parkinson’s levodopa induced dyskinesia), TBIA (blood tests for cancers), LymPro Test (Alzheimer’s blood test), NuroPro (blood test for Parkinson’s) and Theralink (tumor biopsy phosphoprotein biomarker platform for cancer drug selection) are being developed by technology-focused subsidiaries. The subsidiary portfolio consists of wholly-owned subsidiaries and partially-owned subsidiaries:

Wholly-owned subsidiaries

- (i) **Cutanogen Corporation** that is preparing to initiate a potentially pivotal clinical development program for the autologous, full thickness skin grafting program Engineered Skin Substitute (“ESS”) for the treatment of large, life-threatening pediatric severe burns, with significant additional potential applications in the treatment of critical care and cosmetic-related applications;
- (ii) **MANF Therapeutics, Inc.** that is developing the pre-clinical stage protein drug candidate mesencephalic astrocyte-derived neurotrophic factor (“MANF”) for the treatment of vision loss associated with the rare genetic condition Wolfram’s Syndrome, as well as the treatment of other vision-related disorders such as retinitis pigmentosa, glaucoma and macular degeneration. Additionally, MANF has potential applications in the treatment of Parkinson’s disease, diabetes and several other conditions;
- (iii) **Trimeric Labs, Inc.** that is further exploiting the neurotrophic factor discovery platform “PhenoGuard” from which MANF was discovered. Trimeric is seeking to discover additional neurotrophic factors from PhenoGuard as potential treatments for Parkinson’s disease, Alzheimer’s disease, Huntington’s disease, ALS, and other neurological conditions;
- (iv) **Hemp BioHealth, Inc.** that is seeking to develop inhalable non-psychoactive cannabinoid products for the smoking cessation and other CNS-related disorders;

Partially-owned subsidiaries

- (v) 15% ownership in **Todos Medical Ltd.** (based in Israel, NASDAQ: TOMD) that is developing the TBIA cancer blood testing platform focused on the early detection of breast cancer, colon cancer and lung cancer as well as the Alzheimer’s blood diagnostic LymPro Test® as a pre-symptomatic blood test for Alzheimer’s disease, as well as potentially for the early diagnosis of CTE;
- (vi) 50% ownership in **Elto Pharma, Inc.** that is preparing to initiate a Phase 2b clinical trial for the small molecule drug candidate eltoprazine for the treatment of Parkinson’s disease levodopa-induced dyskinesia (PD-LID), with additional potential applications for the treatment of agitation in Alzheimer’s disease and adult attention deficit and hyperactivity disorder (adult ADHD);
- (vii) 32.4% common stock ownership in Avant Diagnostics, Inc. (OTCPK: AVDX) that is commercializing the phosphoprotein tumor analysis platform Theralink® to improve diagnosis and treatment response rates across all cancers.

Our Strategy

The Company’s business plan for the next 12 months is to focus on value creation in the Company’s biotechnology subsidiary holdings by way of strategic transactions and fund raisings, and evaluate entry into the hemp-based inhalable targeting nicotine (cigarette and e-cigarettes/vapes) smoking cessation.

Note 2 – Going Concern

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

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

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"), which contemplate continuation of the Company as a going concern.

Historically, the Company has incurred net losses and negative cash flows from operations. The Company believes its current capital resources are not sufficient to support its operations. Management intends to continue its research efforts and to finance operations of the Company through debt and/or equity financings. Management plans to seek additional debt and/or equity financing through private or public offerings or through a business combination or strategic partnership. There can be no assurance that the Company will be successful in obtaining additional financing on favorable terms, or at all. These matters raise substantial doubt about the Company's ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of these uncertainties.

Note 3 – Summary of Significant Accounting Policies

Significant Accounting Policies - There have been no material changes in the Company's significant accounting policies, other than the Fair Value of Convertible Notes Receivable, to those previously disclosed in the 2015 Annual Report.

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

Basis of Presentation - The Financial Statements and related disclosures have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). The Financial Statements have been prepared using the accrual basis of accounting in accordance with Generally Accepted Accounting Principles ("GAAP") of the United States (See Note 2) regarding the assumption that the Company is a "going concern".

Development Stage Company - The Company is a development stage company as defined by section 915-10-20 of the FASB Accounting Standards Codification. The Company is still devoting substantially all of its efforts on establishing the business. Its planned principal operations have not commenced. All losses accumulated since inception have been considered as part of the Company's development stage activities.

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

Research and Development Expenditures - Research and development costs are expensed as incurred. Research and development costs include salaries and personnel-related costs, consulting fees, fees paid for contract research services, fees paid to clinical research organizations and other third parties associated with clinical trials, the costs of laboratory equipment and facilities, and other external costs. The Company incurred approximately \$3.7 million on research and development costs for the year ended June 30, 2019, respectively.

Fair Value Option - The Company has elected the fair value option to account for its convertible note receivable and its investments at fair value with changes in fair value recorded in the statement of operations.

Fair Value Convertible Notes Receivable - The Company's convertible note receivable as of June 30, 2019 was valued, taking into consideration, cost of the investment, market participant inputs, market conditions, liquidity, operating results and other qualitative and quantitative factors. The values at which the Company's convertible note receivable are carried on its books are adjusted to estimated fair value at the end of each quarter taking into account general economic and stock market conditions and those characteristics specific to the underlying investments. Due to the short term nature of convertible note receivable, cost approximates fair value.

Investments - Investments in entities where the Company can exercise significant influence, but not control, is classified as an equity investment and accounted for using the fair value option.

Recent Accounting Pronouncements

Except for rules and interpretive releases of the SEC under authority of federal securities laws and a limited number of grandfathered standards, the FASB Accounting Standards Codification™ ("ASC") is the sole source of authoritative GAAP literature recognized by the FASB and applicable to the Company. We have reviewed the FASB issued Accounting Standards Update ("ASU") accounting pronouncements and interpretations thereof that have effectiveness dates during the periods reported and in future periods. The Company has carefully considered the new pronouncements that alter previous generally accepted accounting principles and does not believe that any new or modified principles will have a material impact on the corporation's reported financial position or operations in the near term. The applicability of any standard is subject to the formal review of our financial management and certain standards are under consideration.

Note 4 – Net Loss per share

The Company computes basic and diluted earnings per share amounts in accordance with ASC Topic 260, Earnings per Share. Basic earnings per share is computed by dividing net income (loss) available to common shareholders by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share reflects the potential dilution that could occur if stock options and other commitments to issue common stock were exercised or equity awards vest resulting in the issuance of common stock that could share in the earnings of the Company.

Note 5 – Fair Value of Financial Instruments

The Company's balance sheet includes certain financial instruments. The carrying amounts of current assets and current liabilities approximate their fair value because of the relatively short period of time between the origination of these instruments and their expected realization.

The Company follows FASB Accounting Standards Codification (ASC) 820 "Fair Value Measurements and Disclosures" which defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy that distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs).

The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

Fair value estimates discussed herein are based upon certain market assumptions and pertinent information available to management as of November 30, 2016. The respective carrying value of certain on-balance-sheet financial instruments approximated their fair values due to the short-term nature of these instruments. These financial instruments include accounts receivable, other current assets, accounts payable, accrued compensation and accrued expenses. The fair value of the Company's notes payable is estimated based on current rates that would be available for debt of similar terms which is not significantly different from its stated value.

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

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

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

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

Note 6 – Convertible Notes Receivable

The Company owns \$50,000 in notes receivable from Cerora, Inc.

Notes 7 – Notes Payable

As of June 30, 2019, the Company had convertible notes payable in the aggregate amount of \$18,167,344 outstanding.

As of June 30, 2019, the Company had convertible notes payable in the aggregate amount of \$216,000, including \$166,000 to related parties.

2020 Notes Payable

Date	Description	Name	Amount
12/31/2017	Beginning Balance		712,265.00
1/4/2018	Note Payable of \$50,000 issued on 01/04/18	KDL Holdings LLC	25,000.00
1/23/2018	Note Payable of \$50,000 issued on 01/23/18	C K Papardelle	15,000.00
2/21/2018	Converting Note and accrued Interest into 12% secured convertible Note	GEMG Note	(560,705.00)
3/30/2018	Avant Note written off and 1,000,000 common stock issued	Avant Diagnostics, Inc.	(26,560.00)
3/31/2018	Ending Balance		<u>165,000.00</u>
6/30/2018	Ending Balance		<u>165,000.00</u>
9/24/2018	Advance from Fairmont Adviosry	Fairmont Advisor	25,000.00
9/30/2018	Ending Balance		<u>190,000.00</u>
12/31/2018	Ending Balance		<u>190,000.00</u>
3/31/2019	Ending Balance		<u>190,000.00</u>
4/24/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,200.00
5/6/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,300.00
5/9/2019	Convertible Note with 10% OID	Challen, Roger	37,750.00
5/30/2019	Payment to Fairmont Adviosry	Fortitude Advisors LLC	(56,000.00)
5/30/2019	Payment to Fairmont Adviosry	Fortitude Advisors LLC	(2,000.00)
5/30/2019	12% Convertible Note	GPL Ventures LLC	75,000.00
5/31/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	14,000.00
6/3/2019	Payment to Fairmont Adviosry	Fortitude Advisors LLC	(24,000.00)
6/3/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	24,000.00
6/3/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	28,000.00
6/10/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	2,000.00
6/12/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,500.00
6/12/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	2,000.00
6/13/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	3,500.00
6/13/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	5,000.00
6/21/2019	Advance from Fairmont Adviosry	Fortitude Advisors LLC	1,000.00
6/25/2019	WIRE TYPE:WIRE IN DATE: 190625 TIME:0929 ET TRN:2019062500275436 SEQ:3985900176ES/006858 ORIG:BR...	Breakthrough Diagnostics	25,000.00
6/30/2019	Ending Balance		<u>329,250.00</u>

2031 Convertible Notes

Date	Description	Name	Amount
12/31/2017	Beginning Balance		9,069,333.22
2/21/2018	Converting Note and accrued Interest into 12% secured convertible Note	GEMG Note	718,823.81
2/27/2018	Converting principal portion of GEMG note to GHS	GEMG Note	(560,705.00)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Delafield Investments Ltd.	(3,544,445.00)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Dominion Capital LLC	(2,313,244.00)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Anson Investment	(883,778.00)
3/26/2018	True up the outstanding balance of the note per client_Tender Exchange	Delafield Investments Ltd.	(20,278.00)
3/26/2018	True up the outstanding balance of the note per client_Tender Exchange	Dominion Capital LLC	(27,222.22)
3/31/2018	Ending Balance		<u>2,438,484.81</u>
4/13/2018	Converting Note Payable to Secured convertible Note	GEMG Note	(158,118.81)
5/10/2018	Converting Senior secured note to Common stock	Xpress Group International	(175,000.00)
5/10/2018	Converting Senior secured note to Common stock	Dominick & Dickerman LLC	(75,000.00)
5/10/2018	Converting Senior secured note to Common stock	Xpress Group International	(100,000.00)
6/30/2018	Ending Balance		<u>1,930,366.00</u>
9/30/2018	Ending Balance		<u>1,930,366.00</u>
12/31/2018	Ending Balance		<u>1,930,366.00</u>
1/4/2019	Issued Convertible Promissory Note	Challen, Roger	157,500.00
2/1/2019	Issued Convertible Promissory Note	Challen, Roger	53,000.00
3/31/2019	Ending Balance		<u>2,140,866.00</u>
5/8/2019	Converted 41 shares of Series E and Legal fees into 12% Convertible Promissory Note	GPL Ventures LLC	75,000.00
5/22/2019	Converted portion of Note into common stock	GPL Ventures LLC	(20,000.00)
5/24/2019	Converted 250 shares of series I into 12% Convertible Promissory Note	GHS	772,036.00
6/3/2019	Converted portion of Note into common stock	GPL Ventures LLC	(25,000.00)
6/24/2019	Converted Note into common stock	GPL Ventures LLC	(30,000.00)
6/24/2019	Converted 945 shares of Series I into 12% Convertible Promissory Note	GHS	945,000.00
6/30/2019	Ending Balance		<u>3,857,902.00</u>

2038 Unsecured Convertible Notes

Date	Description	Name	Amount
12/31/2017	Beginning Balance		-
3/26/2018	Exchanging Series E into unsecured note_ Tender Exchange	Dominion Capital LLC	3,923,235.00
3/26/2018	Exchanging Series E into unsecured note_ Tender Exchange	Lincoln Park Capiotal Fund, LLC	491,028.00
3/26/2018	Exchanging Series E & H into unsecured note_ Tender Exchange	International Infusion, LP	828,661.00
3/26/2018	Exchanging Series H into unsecured note_ Tender Exchange	vivacitas Oncology Inc.	408,900.00
3/26/2018	Exchanging Series H into unsecured note_ Tender Exchange	Delafield Investments Ltd.	1,189,772.00
3/26/2018	Exchanging Series H into unsecured note_ Tender Exchange	Anson Investment	2,013,000.00
			<u>8,854,596.00</u>
3/31/2018	Ending Balance		<u>8,854,596.00</u>
			<u>8,854,596.00</u>
6/30/2018	Ending Balance		<u>8,854,596.00</u>
			<u>8,854,596.00</u>
9/30/2019	Ending Balance		<u>8,854,596.00</u>
			<u>8,854,596.00</u>
12/31/2018	Ending Balance		<u>8,854,596.00</u>
			<u>8,854,596.00</u>
3/31/2019	Ending Balance		<u>8,854,596.00</u>
			<u>8,854,596.00</u>
6/30/2019	Ending Balance		<u>8,854,596.00</u>
			<u>8,854,596.00</u>

2037 Senior Secured Convertible Note

Date	Description	Name	Amount
12/31/2017	Beginning Balance		277,380.48
2/27/2018	Converting principal portion of GEMG note to GHS	GHS	560,705.00
2/27/2018	Converting portion of note to 1,000,000 shares of common stock	GHS	(56,250.00)
3/13/2018	Converting portion of Secured convertible note	GHS	(50,253.12)
3/22/2018	Converting portion of Secured convertible note	GHS	(50,233.56)
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Delafield Investments Ltd.	3,544,445.00
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Dominion Capital LLC	2,313,244.00
3/26/2018	Exchanging convertible notes into senior secured note_Tender Exchange	Anson Investment	883,778.00
3/29/2018	Converting portion of Secured convertible note	GHS	(63,120.32)
3/31/2018	Ending Balance		<u>7,359,695.48</u>
4/6/2018	Converting Secured convertible Note to common stock	GHS	(63,153.52)
4/13/2018	Converting Secured convertible Note to common stock	GHS	(47,398.42)
4/13/2018	Converting Note Payable to Secured convertible Note	GHS	158,118.81
5/2/2018	Converting Secured convertible Note to common stock	GHS	(52,623.74)
5/7/2018	Converting Secured convertible Note to common stock	GHS	(54,498.01)
5/15/2018	Converting Secured convertible Note to common stock	GHS	(68,072.66)
5/29/2018	Converting Secured convertible Note to common stock	GHS	(91,268.60)
6/7/2018	Converting Secured convertible Note to common stock	GHS	(33,839.16)
6/13/2018	Converting portion of Interest into common stock	Dominion Capital LLC	(17,105.12)
6/15/2018	Converting Secured convertible Note to common stock	GHS	(88,112.69)
6/30/2018	Ending Balance		<u>7,001,742.37</u>
7/5/2018	Converting portion of Interest into common stock	Dominion Capital LLC	(29,007.65)
9/30/2018	Ending Balance		<u>6,972,734.72</u>
12/31/2018	Ending Balance		<u>6,972,734.72</u>
3/31/2019	Ending Balance		<u>6,972,734.72</u>
6/30/2019	Ending Balance		<u>6,972,734.72</u>

Note 8 – Stockholder’s Equity

In quarter ended June 30, 2019, the Company issued 11,872,606 shares to various investors for conversion of debt to equity.

Share Settled Debt – The Company issued 1,000,000 in the quarter ended June 30, 2019 for services.

Note 9 – Temporary Equity

Series A Preferred Stock

On November 16, 2017, the Company’s Board of Directors approved an amendment of the Company’s Series A Preferred class of stock that will be convertible into common stock. 250 Series A Preferred shares will be designated, with each 1 share representing a right to buy 0.1% (total 25%) of the outstanding common shares immediately prior to an uplist onto a national exchange (the Uplist), provided however that if a concurrent financing occurs with the Uplist, then the Series A shall occur immediately prior to such financing. The purpose of the creation of this class of stock is to ensure proper incentivization for the management, board of directors and key advisory team tasked with completing the restructuring in preparation for an Uplist. The shares allowed to be purchased would not be saleable for a period of 9 months following the Uplist.

Series B Preferred Stock

On April 18, 2018, as part of the Company's ongoing compensation negotiation plan with its Chief Executive Officer that was initiated in October 2017 to retain Mr. Commissiong's services during the Company's ongoing restructuring efforts, the Company allowed Mr. Gerald Commissiong to purchase 249,999 shares of a newly designated Series B Preferred shares of stock at a per share price of \$0.01, for a total investment of \$2,499.99 following the successful completion of the Tender Exchange of convertible securities. Pursuant to the share purchase, Mr. Commissiong now has the right to vote 249,999 shares of Series B Preferred Stock, which Series B Preferred Stock shall vote with the Company's common stock and shall have voting power equal to 99,999 votes of common stock per share of Series B Preferred Stock, for a total number of votes equal to 24,999,650,000 shares of the Company's common stock.

Series C Preferred Stock

99 shares outstanding

The class of stock Series C Preferred Stock is being targeted by the Board of Directors and management to be amended to fulfill the term sheet the Company executed with owned by Xpress Group International Limited, an entity owned solely by Mr. Heng Fai Chan.

On December 19, 2018, the Company completed an exchange agreement with preferred shareholder Mr. Heng Fai Chan to redeem certain securities held by Mr. Chan, in exchange for the issuance of new securities. Under the terms of the agreement the following securities held by Mr. Chan via entities he controls were returned to the Company:

- o 25,530,667 shares of common stock held in the name of Xpress Group International Ltd, representing approximately
- o 250,000 shares of Series F Preferred Stock, and the 25,000,000,000 common share voting rights related thereto, held by Amaranthus Bioscience PTE Ltd. (an entity wholly-owned by Mr. Chan)

In exchange the Company issue to Mr. Chan:

- o 99 shares of Series C stock, which will convert into 9.9% of Company common stock, inclusive of any shares outstanding held by Mr. Chan, or affiliates of Mr. Chan. The conversion shall upon the earlier of at the discretion of the holder, or immediately prior to a listing of Company common stock on a national exchange. The conversion shall be a one-time conversion, which means that the holder is entitled to convert the Series C only in a single transaction. This class of Series C stock is in process of being created
- o 9.9% of subsidiary Elto Pharma
- o 9.9% of subsidiary Cutanogen Corporation
- o 9.9% of subsidiary Breakthrough Diagnostics

Series D Preferred Stock

None outstanding. The class of stock Series D Preferred Stock is being targeted by the Board of Directors and management to be amended to fulfill the Tender Exchange agreement, and Amendments #1 and #2 thereto, referred to below of the "New Preferred Stock".

Tender Exchange

Tender Exchange of Convertible Securities

On March 28, 2018 the Company entered into an exchange agreement (the "Tender") with a controlling majority of holders of certain senior secured convertible debt ("Old Secured Debt"), Series E Preferred Stock (the "Series E") and Series H Preferred Stock (the "Series H" and together with the Series E Holders, the "Old Equity") as specified therein. Pursuant to the Tender Exchange, the Company issued the holders of Secured Debt non-interest bearing senior secured convertible notes ("New Secured Debt") in the principle amount equal to 80% of the Old Secured Debt in exchange for the outstanding principal amount Old Secured Debt held by such debt holders, the cancellation of warrants issued therewith and the forgiveness of all accrued and unpaid penalties interest and fees on the Old Debt. Additionally, pursuant to the Tender Exchange, the Company issued the holders of Equity non-interest bearing unsecured convertible notes ("New Unsecured Debt") in the principle amount equal to 75% of the Old Equity in exchange for the outstanding principal amount Old Equity held by such equity holders, the cancellation of warrants issued therewith and the forgiveness of all accrued and unpaid penalties dividend and fees on the Old Equity.

The New Secured Debt and New Unsecured Debt is non-interest bearing and matures nine months from the date of the closing of the Tender Exchange. The New Secured Debt and New Unsecured Debt is convertible into shares of the Company's common stock at any time after the uplist of the Company's common stock to NASDAQ or the New York Stock Exchange when the per share price is equal to or greater than 2x the price per share required for such uplist (the "Uplist Price").

After such uplist, the New Secured Notes and Unsecured Notes conversion amount shall be the Tranche Size divided by the average price per share of the Company's common stock for the immediately preceding 12 trading days (with such share price subject to an increase cap of 250% of the Uplist Price). "Tranche Size" means 25% of the of the New Secured Notes and New Unsecured Notes' (taken together) principal amount.

Holders of the New Secured Notes and New Unsecured Notes may only sell such number of securities equal to no more than 5% (subject to a minimum of 0.3125%) of the average trading volume (in the aggregate, meaning all New Secured Notes and New Unsecured Note together) for the prior five trading days multiplied by the Tranche Size per day (the "Liquidation Limit"). Holders of the New Secured Notes and New Unsecured Notes may liquidate the maximum Tranche Size upon the earlier of (i) nine months from the closing date of the Tender Exchange and (ii) the first day upon which the Company's securities close at a price per share which is greater than 150% of the Uplist Price ("The Initial Conversion Date") and subsequently at four-month intervals thereafter (each a "Liquidation Interval").

Upon closing and settlement of capital investment equal to or greater than \$5 million in Amaranthus, there will be a release by holders of the New Secured Debt of all security interests in the Company's assets, and holders of New Secured Debt and New Unsecured Debt will convert into a newly designated class of preferred stock (the "New Preferred Stock") (with such conversion being subject to the reduction of Company accounts payable balance to less than \$2M with no single account payable exceeding \$100,000), thereby improving the Company's equity balance sheet in preparation for the listing of the Company's common stock on a national exchange. Additionally, upon completion of a capital raise equal to or greater than \$1 million at any subsidiary level to independently fund such subsidiaries' operations, the holders of the New Secured Debt shall release all of the security interests in such subsidiary's assets.

All securities delivered in the Tender Exchange shall be assigned to a Special Purpose Vehicle to be formed by the Company (the "AMBS SPV"), for the benefit of each holder of the securities, and the AMBS SPV shall be solely responsible for the administration and liquidation of the Company securities (conversion shares) for remittance of proceeds. Holders of the New Secured Debt will receive an aggregate of 79,250,000 share of common stock of Avant Diagnostics, Inc. (OTC Pink: AVDX) that the Company currently owns, with such shares being deposited to an additional Special Purpose Vehicle to be formed (the "AVDX SPV") specifically to ensure the orderly liquidation of such AVDX shares to be held by the New Secured Debt holders, with the proceeds from such sales being used to redeem in part, or in whole, the then outstanding balance of New Secured Debt or New Preferred Stock held by the holders of Old Secured Debt. In the event the Company sells any shares of its subsidiaries, the Company has agreed to use 50% of the proceeds from such sales to redeem the balances in the AMBS SPV. The Company reserves the right to redeem all outstanding New Secured Debt and New Unsecured Debt securities in the AMBS SPV for cash at any time.

Amendment #1 to Tender Exchange

On December 26th, 2018, the Company entered into Amendment #1 to Secured and Preferred Tender Exchange Agreements with a controlling majority of investors holding Exchange Notes originally entered into on March 26, 2018. Under the terms of the Amendment #1:

- a. Section 22(p) of the Debt Tender Exchange Agreement shall be deleted in its entirety and replaced with:

"Initial Conversion Date" shall mean the date that is the earlier of (i) thirteen (13) months from the Closing Date and (ii) the first Trading Day when the closing price of the Company Common Stock is greater than one hundred fifty percent (150%) of the Up-List Price.

- b. Section 22(p) of the Preferred Tender Exchange Agreement shall be deleted in its entirety and replaced with:

“Initial Conversion Date” shall mean the date that is the earlier of (i) thirteen (13) months from the Closing Date and (ii) the first Trading Day when the closing price of the Company Common Stock is greater than one hundred fifty percent (150%) of the Up-List Price.

The Initial Conversion Date for both the Secured and Unsecured Debt is now April 26, 2019.

Amendment #2 to Tender Exchange

On April 14th, 2019, the Company entered into Amendment #1 to Secured and Preferred Tender Exchange Agreements with 100% of investors holding Exchange Notes originally entered into on March 26, 2018. Under the terms of the Amendment #2:

Section 1. of the Form of Senior Secured Note shall be deleted in its entirety and replaced with:

PAYMENTS OF PRINCIPAL. Upon closing of a Regulation A+ Offering (or any other offering in the event that Company changes course for any reason to utilize a different offering means or exemption) yielding sufficient net proceeds to allow the Company to meet the initial listing standards to list its common shares on a national exchange (the “Reg A+”), the Company shall redeem 30% the outstanding Principal in cash, plus 30% of the amount due Holders’ counsel. The remaining 70% of outstanding Principal (the “Remaining Balance”) shall be converted into Preferred equity that will be convertible into Company common stock according to the terms in Section 3.

Section 1 of the Form of Unsecured Note shall be deleted in its entirety and replaced with:

PAYMENTS OF PRINCIPAL. Upon closing of the Reg A+, the Company shall redeem 30% the outstanding Principal in cash. The remaining 70% of outstanding Principal (the “Remaining Balance”) shall be converted into Preferred equity that will be convertible into Company common stock according to the terms in Section 3.

Section 3. 3(a) and 3(b) of the Form of Senior Secured Note shall be deleted in its entirety and replaced with:

CONVERSION OF NOTES. Upon closing of the Reg A+, this Note shall be exchanged for convertible preferred stock with conversion features into the Company’s common stock that are identical to those featured in this Note (the “Preferred”). At any time after the Initial Conversion Date and at each Subsequent Liquidation Interval thereafter, but no later than the Maturity Date, the Preferred may be converted into validly issued, fully paid and non-assessable shares of Company Common Stock, on the terms and conditions set forth in this Section 3.

(a) Conversion Right. Subject to the provisions of Section 3(d), at any time or times on or after the Initial Conversion Date and Offering Lock-up, the Holder shall be entitled to convert such portion of the then outstanding Preferred (as defined below) and Section 6 hereof into validly issued, fully paid and non-assessable shares of Company Common Stock in accordance with Section 3(c), at the applicable Conversion Rate (as defined below). The Company shall not issue any fraction of a share of Company Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Company Common Stock, the Company shall round such fraction of a share of Company Common Stock up to the nearest whole share. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent (as defined below)) that may be payable with respect to the issuance and delivery of Company Common Stock upon conversion of any Conversion Amount.

(b) Conversion Rate. The number of shares of Company Common Stock issuable upon conversion of any Conversion Amount pursuant to Section 3(a) shall be determined by dividing (x) such Conversion Amount by (y) the Conversion Price (the “**Conversion Rate**”).

(i) “**Conversion Amount**” after the Reg A+ shall mean the Remaining Balance divided by the Conversion Price; provided, however, there shall be no trading or liquidation of Company Common Stock prior to the Reg A+.

(ii) “**Conversion Price**” means the per shares price at which the Reg A+ was completed.

Section 3, 3(a) and 3(b) of the Form of Unsecured Note shall be deleted in its entirety and replaced with:

CONVERSION OF NOTES. Upon closing of the Reg A+, this Note shall be exchanged for convertible preferred stock with common stock conversion features that are identical to those featured in this Note (the “Preferred”). At any time after the Initial Conversion Date and at each Subsequent Liquidation Interval thereafter, but no later than the Maturity Date, the Preferred may be converted into validly issued, fully paid and non-assessable shares of Company Common Stock, on the terms and conditions set forth in this Section 3.

(a) Conversion Right. Subject to the provisions of Section 3(d), at any time or times on or after the Initial Conversion Date and Offering Lock-up, the Holder shall be entitled to convert such portion of the then outstanding Preferred (as defined below) and Section 6 hereof into validly issued, fully paid and non-assessable shares of Company Common Stock in accordance with Section 3(c), at the applicable Conversion Rate (as defined below). The Company shall not issue any fraction of a share of Company Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Company Common Stock, the Company shall round such fraction of a share of Company Common Stock up to the nearest whole share. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent (as defined below)) that may be payable with respect to the issuance and delivery of Company Common Stock upon conversion of any Conversion Amount.

(b) Conversion Rate. The number of shares of Company Common Stock issuable upon conversion of any Conversion Amount pursuant to Section 3(a) shall be determined by dividing (x) such Conversion Amount by (y) the Conversion Price (the “**Conversion Rate**”).

(i) “**Conversion Amount**” after the Reg A+ shall mean the Remaining Balance divided by the Conversion Price; provided, however, there shall be no trading or liquidation of Company Common Stock prior to the Reg A+.

(ii) “**Conversion Price**” means the per shares price at which the Reg A+ was completed.

Section 22(p) of the Form of Senior Secured Note shall be deleted in its entirety and replaced with:

“Initial Conversion Date” shall mean the date of the closing of the Reg A+.

Section 22(p) of the Form of Unsecured Note shall be deleted in its entirety and replaced with:

“Initial Conversion Date” shall mean the date of the closing of the Reg A+.

Series E Preferred Stock

The following table summarizes the Company's Series E Preferred Stock activities for the quarter ended March 31, 2019 (amount in thousands):

	Series E convertible preferred stock	
	Shares	Par value
Balances as of January 1, 2019	1,187	\$ 1,187
Series E preferred stock converted into convertible notes payable	-	-
Balance as of March 31, 2019	1,187	\$ 1,187

The Company is working to convert outstanding Series E Preferred Stock into common stock of the Company, or exchange such Series E Preferred Stock for unsecured convertible notes in the Company for the purposes of simplifying the Company's capitalization table heading into the Regulation A+ offering.

Series H Preferred Stock

The following table summarizes the Company's Series H Preferred Stock activities for the quarter ended March 31, 2019 (amount in thousands):

	Series H convertible preferred stock	
	Shares	Par value
Balances as of January 1, 2019	455	\$ 455
Series H preferred stock converted into convertible notes payable	-	-
Balance as of March 31, 2019	455	\$ 455

The Company expects to convert all remaining Series H Preferred Stock into common stock in the second quarter of 2019. Thereafter, the Company intends to extinguish any remaining Series H Preferred Stock and withdraw the Series H Certificate of Designation.

Note 10 – Related Party Transactions

Convertible Notes Receivable

See footnote 6 for a discussion of convertible notes receivable.

Notes Payable

The Company has a demand promissory note with Neurotophics, Inc. in the amount of \$166,000 which is upon demand of the holder. At the option of the Company, the note and the accrued interest owed can be repaid by issuing shares of its common stock based on the closing price of the Company's common stock on the day of the conversion. The conversion price if converted on June 30, 2019 would be \$0.0194 related to the note and accrued interest on the note and would convert to approximately 8,556,701 shares.

Note 11 – Subsequent Event

On September 9th, 2019, the Company entered into a financing transaction with EMA Financial whereby the Company issued to EMA a convertible promissory note with a face value of \$500,000. The Note carries a 10% original issue discount and 12% interest. Upon the closing, the Company issued the first tranche under the note in an amount equal to \$125,000, which resulted in \$112,500 in proceeds being delivered to the Company.

On September 12th, 2019, the Company entered into a settlement agreement with GreenTree Financial (Greentree) and Brewer Capital Management (BCM) related to a lawsuit filed in California State Court in the matter styled Greentree Financial Group, Inc. v. Amarantus Bioscience Holdings, Inc., Case No. CGC 17-557555 where a judgment was entered against the Company in the amount of \$892,336.00 with post-judgment simple interest at the rate of ten percent (10%) per annum from the date judgment was entered until fully paid. Under the terms of the settlement agreement, the Company agreed to issue to GreenTree and BCM each 4,000,000 shares of restricted common stock.

PART III EXHIBITS

EXHIBIT INDEX

Exhibit Number	Description	Filed
2.1	Certificate of Incorporation	Form SB-2 on 1/29/2008
2.2	Bylaws	Form SB-2 on 1/29/2008
2.3	Articles of Amendment (Name Change)	Form 8-K on 5/27/2011
2.4	Articles of Amendment (Name Change)	Form 8-K on 4/11/2013
2.5	Certificate of Designation Series A	Form 1-A on 9/27/2019
2.6	Certificate of Designation Series B	Form 1-A on 9/27/2019
2.7	Certificate of Designation Series C	Form 1-A on 9/27/2019
2.8	Certificate of Designation Series D	Form 1-A on 9/27/2019
2.9	Certificate of Designation Series E	Form 1-A on 9/27/2019
2.10	Certificate of Designation Series H	Form 8-K on 4/21/2016
11.1	Consent of Eilers Law Group, P.A. (Included in 12.1)	
12.1	Opinion of Eilers Law Group, P.A. regarding legality of the securities covered in this Offering*	

SIGNATURES

Pursuant to the requirements of Regulation A, the issuer certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form 1-A and has duly caused this offering statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on January 3, 2020.

AMARANTUS BIOSCIENCE HOLDINGS, INC.

By: /s/ Gerald Commissiong
Gerald Commissiong
Chief Executive Officer
Principal Executive Officer
Principal Accounting Officer
Principal Financial Officer
Director

This offering statement has been signed by the following persons in the capacities and on the dates indicated.

/s/ John W. Commissiong
John W. Commissiong

1/3/2020
Date

/s/Robert L. Harris
Robert L. Harris

1/3/2020
Date

eilers law group p.a.

1000 Fifth Street
Suite 200 – P2
Miami Beach, FL 33139

PO Box 5025
Asheville, NC 28813
Phone: 786.273.9152 www.eilerslawgroup.com

January 9, 2020

Gentlemen:

We are acting as counsel to Amaranthus Bioscience Holdings, Inc. (the “Company”) in connection with the preparation and filing with the Securities and Exchange Commission, under the Securities Act of 1933, as amended, of the Company’s Offering Statement on Form 1-A. The Offering Statement covers \$20,000,000 of the Company’s common stock at a price to be determined upon qualification between \$0.01 per share and \$1.00 per share, for an aggregate total number of shares to be offered between 20,000,000 and 2,000,000,000 (the “Shares”).

In our capacity as such counsel, we have examined and relied upon the originals or copies certified or otherwise identified to our satisfaction, of the Offering Statement, the form of Subscription Agreement and such corporate records, documents, certificates and other agreements and instruments as we have deemed necessary or appropriate to enable us to render the opinions hereinafter expressed.

On the basis of such examination, we are of the opinion that:

1. The Shares have been duly authorized by all necessary corporate action of the Company as the Board has been authorized by the shareholders to increase the authorized as need to accommodate the offering underlying.
2. When issued and sold by the Company against payment therefor pursuant to the terms of the Subscription Agreement, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the use of our name in the Offering Statement and we also consent to the filing of this opinion as an exhibit thereto. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act of 1933 or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ William R. Eilers
Eilers Law Group, P.A.

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PO Box 5025 | Asheville, NC 28813*