**The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and they are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale thereof is not permitted.**

**Filed Pursuant to Rule 424(b)(5)**
**Registration No. 333-179259**

SUBJECT TO COMPLETION, DATED SEPTEMBER 30, 2014

Prospectus Supplement
(To Prospectus dated February 10, 2012)

# Shares


**Common Stock**

Assembly Biosciences, Inc. is offering shares of common stock.

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Our common stock is listed on The NASDAQ Capital Market under the symbol “ASMB”. The last reported sale price of our common stock on The NASDAQ Capital Market on September 29, 2014 was $8.24 per share.

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**Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page S-5 of this prospectus supplement and on page 12 of the accompanying prospectus.**

| | Per Share | Total |
|---|---|---|
| Public offering price | $ | $ |
| Placement agent’s fees | $ | $ |
| Offering proceeds to us, before expenses | $ | $ |

We have engaged William Blair & Company, L.L.C. as sole placement agent in this offering to use its best efforts to solicit offers to purchase the shares in this offering. The sole placement agent is not purchasing or selling any shares pursuant to this prospectus supplement or the accompanying prospectus, nor are we requiring any minimum purchase or sale of any specific number of shares.

We expect that delivery of the shares being offered pursuant to this prospectus supplement will be made to investors on or about October , 2014.

As of September 16, 2014, the aggregate market value of our outstanding common stock held by non-affiliates was $47,992,428 based on 8,688,059 shares of our common stock outstanding on September 16, 2014, of which 5,740,721 shares were held by non-affiliates, and a price of $8.36 per share, the closing price for our common stock on September 16, 2014. During the 12 calendar months prior to and including the date of this prospectus, we have sold securities with an aggregate market value of $239,279 pursuant to General Instruction I.B.6 of Form S-3.

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined whether this prospectus supplement or the accompanying prospectus is accurate or complete. Any representation to the contrary is a criminal offense.**

## William Blair

*Sole Placement Agent*

The date of this prospectus supplement is October , 2014.

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**Prospectus Supplement**



**Prospectus**



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**You should rely only on the information contained in this prospectus supplement. We have not, and the placement agent has not, authorized anyone to provide you with different information. We are not making an offer of these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus supplement is accurate as of the date on the front of this prospectus supplement only. Our business, financial condition, results of operations and prospects may have changed since that date.**

## ABOUT THIS PROSPECTUS SUPPLEMENT

On January 31, 2012, we filed with the Securities and Exchange Commission, or SEC, a registration statement on Form S-3 (File No. 333-179259) utilizing a shelf registration process relating to the securities described in this prospectus supplement, which registration statement, as amended, was declared effective on February 10, 2012.

This prospectus supplement describes the specific terms of an offering of our securities and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part, the accompanying prospectus, provides more general information. If the information in this prospectus supplement is inconsistent with the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement.

In making your investment decision, you should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus and any relevant free writing prospectus. We have not authorized anyone to provide you with any other information. If you receive any information not authorized by us, you should not rely on it. We are not making an offer to sell the securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus or any relevant free writing prospectus is accurate as of any date other than its respective date.

It is important for you to read and consider all of the information contained in this prospectus supplement and the accompanying prospectus in making your investment decision. We include cross-references in this prospectus supplement and the accompanying prospectus to captions in these materials where you can find additional related discussions. The table of contents in this prospectus supplement provides the pages on which these captions are located. You should read both this prospectus supplement and the accompanying prospectus, together with the additional information described in the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” of this prospectus supplement, before investing in our securities.

We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This prospectus supplement, the accompanying prospectus and the documents we have filed with the SEC that are incorporated herein and therein by reference contain such "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995.

Words such as "may," "might," "should," "anticipate," "estimate," "expect," "projects," "intends," "plans," "believes" and words and terms of similar substance used in connection with any discussion of future operating or financial performance, identify forward-looking statements. Forward-looking statements represent management's current judgment regarding future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. These risks include, but are not limited to:

- our expectations regarding preclinical studies and clinical trials, the timing of preclinical and clinical results, development timelines and regulatory filings and submissions for our product candidates;
- our liquidity and our expectations regarding our needs for and ability to raise additional capital; and
- the amount, and our expected uses, of the net proceeds of this offering.

Please also see the discussion of risks and uncertainties under "Risk Factors" beginning on page S-5 of this prospectus supplement and page 12 of the accompanying prospectus, in our most recent Annual Report on Form 10-K, and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, as filed with the SEC and which are incorporated herein by reference.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus supplement or the accompanying prospectus or in any document incorporated herein or therein by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus supplement or the accompanying prospectus or the date of the document incorporated by reference herein or therein. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. All subsequent forward-looking statements attributable to us or to any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

## PROSPECTUS SUPPLEMENT SUMMARY

*The following summary is qualified in its entirety by, and should be read together with, the more detailed information and financial statements and related notes thereto appearing elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. Before you decide to invest in our securities, you should read the entire prospectus supplement and the accompanying prospectus carefully, including the risk factors and the financial statements and related notes included or incorporated by reference in this prospectus supplement and the accompanying prospectus.*

### Business Overview

We are a biopharmaceutical company committed to applying our scientific leadership in the field of infectious diseases to transform lives by discovering treatments for patients with Hepatitis B virus, or HBV, and clostridium difficile, or CDAD.

We are developing two proprietary platforms to achieve our goals: (i) an HBV-cure platform focused on oral drugs with novel direct-acting mechanisms, and (ii) an orally-delivered microbiome therapeutics platform for treating CDAD.

***The HBV-Cure Platform***

HBV is an underappreciated global epidemic with twice as many people infected (over 350 million globally) and a higher mortality and morbidity rate than Hepatitis C and HIV, combined — over 600,000 people die every year from HBV-related causes. Less than 5% are diagnosed and treated today, and there is a low cure rate with current chronic therapies.

The current therapies for HBV, such as the reverse transcriptase inhibitors entecavir or tenofovir, potently suppress virus production (commonly referred to as “viral load”), but they continue to allow for a living virus and production of viral proteins and specifically viral antigens such as HBsAg. Current therapies must therefore be taken chronically, submitting patients to their associated significant and treatment limiting side effects.

By comparison, modulation of key aspects of the viral replication reservoir in other viruses, such as the new therapies for Hepatitis C for instance, has shown to be key for increasing the rates of curing patients. The viral reservoir for HBV is the intra-nuclear covalently closed circular DNA, or cccDNA. We believe that for finite therapy to be possible in HBV, which we refer to as a “functional cure”, drugs that target multiple aspects of the viral life cycle, and specifically the HBV viral reservoir, will be required.

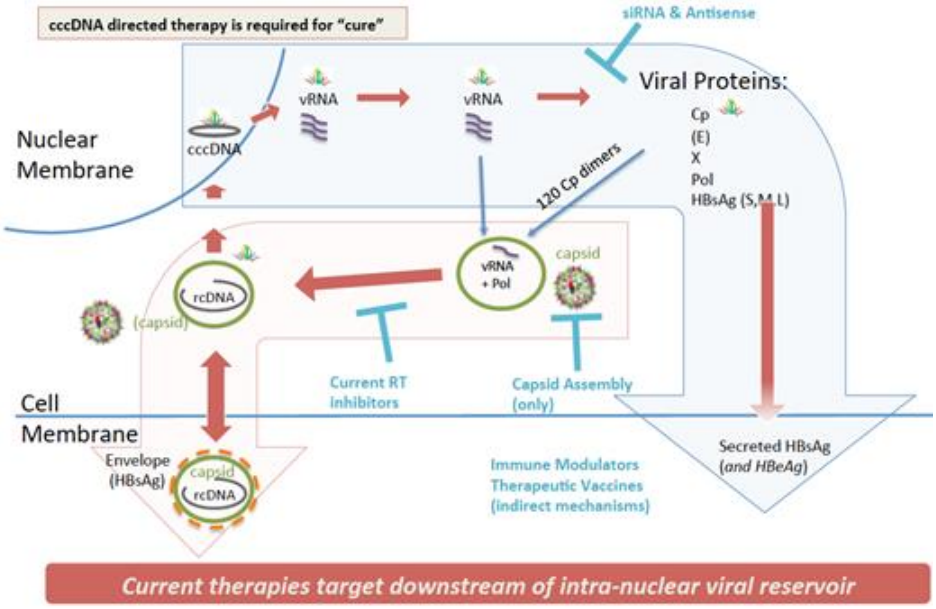


***Figure 1*** *– The HBV life cycle with emphasis on the role of core protein and cccDNA relative to existing other approaches.*

Other HBV treatments in development include immunomodulatory approaches, such as the TLR (Toll-like receptors: a class of proteins that play a key role in the innate immune system) programs and therapeutic vaccine programs that rely on the body's immune system to clear virus; and siRNA (small interfering Ribo Nucleic Acid: a class of double-stranded RNA) approaches that target and rely on the degradation of the viral RNA, reducing RNA-to-protein translation, and also rely on the body's immune system to potentially clear the virus. While these approaches are differentiated from the current standard of care therapies, they do not directly target the viral reservoir (see Figure 1).

We have discovered a series of new compounds based on the seminal research of our co-founder Dr. Adam Zlotnick focusing on HBV core protein – a unique viral protein that is required for HBV lifecycle, and has no human homologue, meaning the HBV core protein is unique from any human protein. Our molecules, known as Core protein Allosteric Modulators, or CpAMs, are capable of targeting and altering certain key proteins of HBV. The HBV core protein is a pleiotropic protein, or it is a protein that has more than one effect, and it flexes into multiple conformations required for several steps of the HBV lifecycle including interaction with the HBV intra-nuclear reservoir: cccDNA (see Figures 1 and 2).

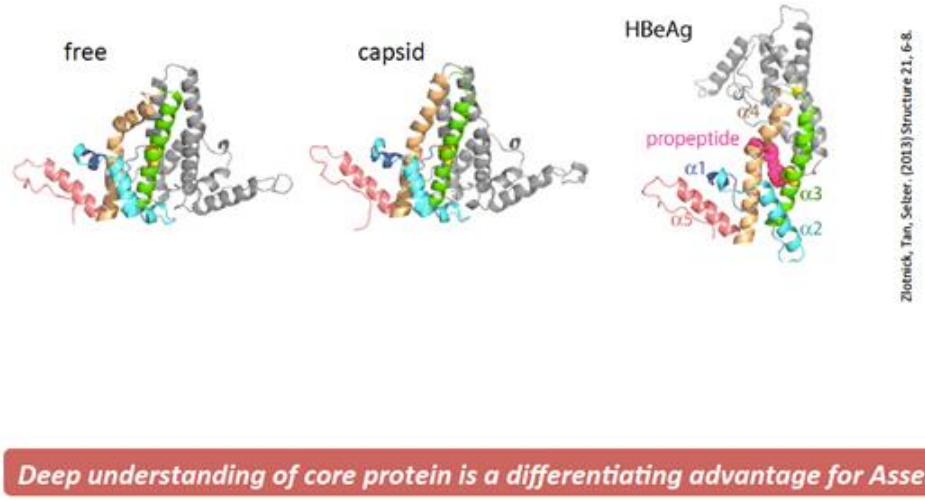


***Figure 2** – HBV core protein is pleiotropic, which allows it to have multiple function in the HBV life cycle, including being required for cccDNA activity.*

Modulation of these specific forms of HBV core proteins with our CpAMs has demonstrated preclinical proof of principle. We have shown in multiple cell models that our CpAMs can selectively reduce the production of viral antigens such as HBsAg and HBeAg—viral proteins which reflect the activity of cccDNA— and can reduce viral load. We believe that our CpAMs are the first of this novel class of molecules to show such effects in preclinical models.

We believe the key advantages of our approach will be:

- **Convenience** – we plan to offer a convenient oral pill formulation;
- **Combination therapy** – we believe our product candidate may be used as either a single agent or in combination with existing therapies;
- **Immune response** - our product candidate should not require an immune response, but may still benefit from this if reducing viral antigen and pgRNA supports anti HBV immunity;
- **Efficacy** - since our CpAMs could target multiple aspects of the viral life cycle they may demonstrate an efficacy advantage over other approaches; and
- **Safety** - since HBV core protein is a unique viral protein with no human homologue, there could be safety advantages due to a potentially reduced risk of off target activity.

We are planning to select by mid 2015 a first generation lead molecule for development, and to initiate clinical trials in the first half of 2016. Our CpAM platform offers a multi-generation pipeline and we plan to advance second and third generation HBV-targeted molecules into clinical development rapidly behind the first program.

Our in-licensed intellectual property portfolio includes multiple patents filed in generally two categories: (i) platform patent applications, which include multiple applications filed and others in process that cover mechanisms of action, methods of treatment, and assays among other platform-related claims; and (ii) composition of matter applications for our several chemical series.

***The CDAD Microbiome Platform***

Our second program is based on a novel coating and encapsulation technology that allows for targeted delivery of complex agents to select regions of the gastrointestinal, or GI, tract.

We are currently focusing our technology on delivering beneficial specific bacteria to treat CDAD. CDAD is a major health problem with more than a five-fold increase in CDAD-associated deaths between 1999 and 2007, and CDAD is the leading cause of death associated with gastroenteritis in the U.S. This translates to an estimated 14,000 Americans that die from causes linked to CDAD each year.

There has been considerable experience reported in the literature of treating CDAD with fecal material transplant, or FMT. In addition, there are preliminary studies using selected bacterial strains and of bacterial spores from processed FMT. These reports have demonstrated a significant and growing precedent of successful cures in patients, and provide an excellent path for potentially curative therapy using a targeted and specific microbiome therapy.

We believe that by providing the benefits found in FMT therapy, in an oral capsule that contains specific bacteria rather than whole or processed feces, clinical adoption could be increased.

Our current research plan includes collaborations with key leaders in the microbiome field, while diligently developing the chemistry, manufacturing, and controls systems for supporting U.S. Food and Drug Administration regulated clinical trials and eventual commercial supply. We anticipate a preclinical proof of principle milestone on our delivery technology near the end of the fourth quarter of 2014 and a clinical proof of principle for the delivery technology in the second quarter of 2015. Additionally, we expect to select our specific microbiome strain leads for development by mid-2015 and to initiate clinical trials in early 2016.

**Our Strategy**

We plan to build a multi-product company, based on our expertise in HBV and microbiome therapeutics, that discovers, develops, and commercializes first-in-class medicines to treat HBV, CDAD, and potentially other viruses and infectious diseases. Key elements of our strategy include:

- Aggressively pursuing the development of novel medicines to increase the cure rates in HBV, CDAD, and other infectious diseases of high unmet medical need;
- Maintaining our leadership and competitive advantage in the fields of direct-acting HBV therapies and orally deliverable microbiome therapies for CDAD;
- Continuing to build a multi-product platform for HBV, CDAD and other infectious diseases to generate medicines to increase cure rates; and
- Maintaining a commitment to great science in drug development.

**Our Guiding Principles**

We and our employees are committed to increasing cure rates for patients with serious infections. This commitment drives our efforts for applying cutting edge science toward the development and commercialization of novel approaches to treating HBV and CDAD. We pledge to:

- Follow the science and do what is right for patients;
- Maintain a culture of open communication and decision-making based on a deep understanding of our science and an appropriate allocation of resources;
- Leverage strategic relationships with academic and corporate partners where and when appropriate; and
- Execute relentlessly.

**Company History**

On July 11, 2014, we merged with Assembly Pharmaceuticals Inc. in a reverse triangular merger with our wholly owned subsidiary, which we refer to as the Assembly Merger. In connection with the Assembly Merger, on July 11, 2014, we changed our name from Ventrus Biosciences, Inc. to Assembly Biosciences, Inc. We were incorporated in Delaware in October 2005 under the name South Island Biosciences, Inc. (which was changed to Ventrus Biosciences, Inc. in April 2007).

**Corporate Information**

Our executive offices are at 99 Hudson Street in New York, NY, 10013, and our research facility is at 953 Indiana Street, in San Francisco, CA 94103. Our telephone number is (646) 706-5208, and our website address is www.assemblybio.com. The information contained on our website is not a part of, and should not be construed as being incorporated by reference into, this prospectus supplement.

As used in this prospectus supplement, unless the context otherwise requires, references to “Assembly,” “we,” “us,” “our” and similar references refer to Assembly Biosciences, Inc. and our wholly owned subsidiary Assembly Pharmaceuticals, Inc.

**The Offering**

| | |
|---|---|
| *Securities offered by us* | shares of common stock |
| *Share price* | $ per share |
| *Common stock to be outstanding after this offering* | shares |
| *Use of proceeds* | We intend to use the net proceeds from this offering for general corporate purposes, including funding our preclinical research and development activities and for working capital. See “Use of Proceeds” on page S-20. |
| *Risk factors* | See “Risk Factors” beginning on page S-5 of this prospectus supplement and other information included or incorporated by reference into this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before investing in our securities. |
| *NASDAQ Capital Market Trading symbol* | “ASMB” |

The number of shares of our common stock to be outstanding immediately after this offering is based on 8,688,059 shares outstanding as of September 16, 2014, and does not include, as of that date:

- 2,560,000 shares of our common stock subject to outstanding options having a an exercise price of $7.20 per share; and
- 151,236 shares of our common stock that have been reserved for issuance upon exercise of outstanding warrants at a weighted average exercise price of $39.65 per share.

## RISK FACTORS

*Investing in our common stock involves risk. Before deciding whether to invest in our common stock, you should consider carefully the risks and uncertainties described below. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" included in our most recent annual report on Form 10-K which is on file with the SEC and is incorporated herein by reference, and which has been and may be amended, supplemented or superseded from time to time by other reports we have filed and may file with the SEC in the future. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section above entitled "Cautionary Statement Regarding Forward-Looking Statements."*

**Risks Related to Our Business**

***We have no approved products and currently are dependent on the success of our HBV and microbiome therapies.***

To date, we have no approved product on the market and have generated no product revenues. Our prospects are substantially dependent on our ability to develop and commercialize our HBV and microbiome therapies. Unless and until we receive approval from the U.S. Food and Drug Administration, or FDA, and other regulatory authorities for our product candidates, we cannot sell our product candidates and will not have product revenues. We will have to fund all of our operations and capital expenditures from cash on hand, any licensing fees and any future securities offerings or debt financings.

***We have a limited operating history and a history of operating losses, and expect to incur significant additional operating losses.***

We were established in October 2005, began active operations in the spring of 2007 and have only a limited operating history. In addition, we have terminated our programs related to our three prior product candidates. Therefore, there is limited historical financial information upon which to base an evaluation of our performance. Our prospects must be considered in light of the uncertainties, risks, expenses, and difficulties frequently encountered by companies in their early stages of operations. We have generated losses since we began operations and, as of June 30, 2014, we had an accumulated deficit of $118.3 million. We expect to incur substantial additional losses over the next several years as we continue to pursue our research, development, preclinical studies and clinical trial activities. The amount of future losses and when, if ever, we will achieve profitability are uncertain. We have no products that have generated any commercial revenue, do not expect to generate revenues from the commercial sale of products unless and until our HBV and microbiome therapies or any other product candidate is approved by the FDA for sale, and we might never generate revenues from the sale of products.

***We are not currently profitable and might never become profitable.***

We have a history of losses and expect to incur significant operating and capital expenditures and resultant substantial losses and negative operating cash flow for the next several years, and beyond if we do not successfully launch and commercialize our HBV therapy or our microbiome program. We might never achieve or maintain profitability. We anticipate that our expenses will continue to be substantial in the foreseeable future as we:

- continue to undertake research and development to identify potential product candidates;
- continue to undertake preclinical studies and clinical trials for our product candidates; and
- seek regulatory approvals for our product candidates.

As a result, we will need to generate significant revenues in order to achieve and maintain profitability. Our ability to generate revenue and achieve profitability will depend on, among other things:

- successful completion of research, preclinical studies and clinical trials for our product candidates;
- obtaining necessary regulatory approvals from the FDA and international regulatory agencies for our product candidates;
- establishing manufacturing, sales, and marketing arrangements with third parties for any approved products; and
- raising sufficient funds to finance our activities, if and when needed.

We might not succeed at any of these undertakings. If we are unsuccessful at some or all of these undertakings, our business, prospects, and results of operations might be materially adversely affected.

***Clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.***

Preclinical studies and clinical testing are expensive, can take many years to complete and their outcome is highly uncertain. Failure can occur at any time during the preclinical study and clinical trial processes due to inadequate performance of a drug candidate or inadequate adherence by patients or investigators to clinical trial protocols. In addition, the results of preclinical studies and early clinical trials of product candidates may not be predictive of the results of later-stage clinical trials. For example, in late June 2012, we reported that our Phase III randomized, double-blind, placebo-controlled clinical trial of iferanserin (VEN 309) in patients with hemorrhoidal disease did not meet its endpoints, despite favorable Phase II trial results. We also reported in February 2014 that in our Phase III clinical trial for the treatment of anal fissures VEN 307 demonstrated no significant improvement compared to placebo. These same risks apply to our planned development of our current and any other product candidates.

***We are an early stage company and might not be able to commercialize any product candidates.***

We are an early stage company and have not demonstrated our ability to perform the functions necessary for the successful commercialization of any product candidates. The successful commercialization of any product candidates will require us to perform a variety of functions, including:

- continuing to undertake research and development and preclinical studies and clinical trials;
- participating in regulatory approval processes;
- formulating and manufacturing products; and
- conducting sales, marketing and distribution activities.

Our development of our product candidates is subject to the risks of failure and delay inherent in the development of new pharmaceutical products and products based on new technologies, including:

- delays in product development, preclinical and clinical testing;
- unplanned expenditures in product development, preclinical and clinical testing;
- failure of a product candidate to demonstrate acceptable safety and efficacy;
- failure to receive regulatory approvals;
- emergence of superior or equivalent products;
- inability to manufacture and sell on our own, or through any others, product candidates on a commercial scale or at a financially viable cost; and
- failure to achieve market acceptance.

Because of these risks, our research and development efforts might not result in any commercially viable products. If we do not successfully complete a significant portion of these development efforts, obtain required regulatory approvals, and have commercial success with any approved products, our business, financial condition and results of operations will be materially harmed.

***The results of earlier studies and trials for any of our product candidates might not be predictive of the results in any future studies or trials.***

The results of any earlier study or trial for any of our product candidates may not be predictive of the results for any future studies or trials. Further, the results of any study or trial for any of our product candidates may not be as positive as the results for any prior studies or trials, if at all. In addition, unforeseen safety issues could emerge in any future study or trial, which could severely hamper the likelihood of FDA or other regulatory approval of any product candidate. If any of these events were to occur, the development of any product candidate could be significantly delayed and more expensive than anticipated, and could lead us to abandon our development efforts entirely, any of which would have a significant adverse effect on our business.

***We may need additional financing to complete the development of any product candidate and fund our activities in the future.***

We anticipate that we will incur operating losses for the next several years as we continue to develop our HBV therapy and VEN 310 as well as initiate any development of any other product and will require substantial funds during that time to support our operations. We expect that our current resources will provide us with sufficient capital to fund our operations into the fourth quarter of 2015. However, we might consume our available capital before that time if, for example, we are not efficient in managing our resources or if we encounter unforeseen costs, delays or other issues or if regulatory requirements change. If that happens, we may need additional financing to continue the development of our HBV therapy and VEN 310. Thereafter, we will need additional capital to fund our operations in the future. However, there is no assurance that we will be successful in raising any necessary additional capital on terms that are acceptable to us, or at all. If such event or other unforeseen circumstances occurred and we were unable to raise capital, we could be forced to discontinue product development, sacrifice attractive business opportunities, cease operations entirely and sell or otherwise transfer all or substantially all of our remaining assets.

***We are dependent on a license relationship for each of our HBV therapy and VEN 310.***

Our license agreement with Indiana University Research and Technology Corporation, or IURTC, from whom we have licensed our HBV therapy, requires us to make milestone payments based upon the successful accomplishment of clinical and regulatory milestones related to our HBV therapy. The total amount of all potential future milestone payments at June 30, 2014 is $825,000. We also are obligated to pay IURTC royalty payments based on net sales of the licensed technology, which increase if we sublicense our rights to a non-affiliate third party. We are also obligated to pay diligence maintenance fees ($25,000-$100,000) each year to the extent that the royalty, sublicensing, and milestone payments to IURTC are less than the diligence maintenance fee for that year. Our license with Therabiome, LLC, from whom we have licensed VEN 310, also requires us to pay regulatory and clinical milestones as well as royalty payments to Therabiome. If we breach any of these obligations, we could lose our rights to VEN 310. If we fail to comply with similar obligations to any other licensor, it would have the right to terminate the license, in which event we would not be able to commercialize drug candidates or technologies that were covered by the license. Also, the milestone and other payments associated with licenses will make it less profitable for us to develop our drug candidates than if we owned the technology ourselves.

***We depend on our collaboration with Adam Zlotnick, the scientific founder of our HBV therapy. If that collaboration is not maintained, we may not be able to capitalize on the market potential of our HBV therapy.***

Dr. Adam Zlotnick is the founder of our HBV therapy. We have entered into a three-year consulting agreement with Dr. Zlotnick pursuant to which he serves as the Chairman of our Scientific Advisory Board and provides consulting services as we request. Dr. Zlotnick could refuse to extend the agreement after its three-year term expires or we could terminate the consulting agreement for cause or no cause. Although Dr. Zlotnick assigned to us any rights to intellectual property related to our HBV therapy that arise during the term of the consulting agreement, and while the consulting agreement contains a non-compete during the term of the agreement, the loss of Dr. Zlotnick's services could materially impair our ability to further the development of our HBV therapy.

***Failure to integrate Assembly Pharmaceutical, Inc. into our operations successfully could adversely affect our business.***

On July 11, 2014, we effected the Assembly Merger whereby Assembly Pharmaceuticals, Inc. became our wholly owned subsidiary. Our integration of the operations and personnel of Assembly may require significant efforts, including significant amounts of management's time, and result in additional expenses. Factors that will affect the success of the merger include the strength of our combined technology, our ability to execute our business strategy, our ability to adequately fund research and development and retain key employees, and results of clinical trials, regulatory approvals and reimbursement levels of any approved product. Our failure to successfully manage the Assembly Merger could have a material adverse impact on our business. In addition, we cannot be certain that Assembly Pharmaceuticals' technology will be successfully developed or, if approved, become profitable or remain so.

***Corporate and academic collaborators might take actions to delay, prevent, or undermine the success of our products.***

Our operating and financial strategy for the development, preclinical and clinical testing, manufacture, and commercialization of drug candidates heavily depends on collaborating with corporations, academic institutions, licensors, licensees, and other parties. However, there can be no assurance that we will successfully establish these collaborations. In addition, should a collaboration be terminated, replacement collaborators might not be available on attractive terms, or at all. The activities of any collaborator will not be within our control and might not be within our power to influence. There can be no assurance that any collaborator will perform its obligations to our satisfaction or at all, that we will derive any revenue or profits from these collaborations, or that any collaborator will not compete with us. If any collaboration is not successful, we might require substantially greater capital to undertake development and marketing of our proposed products and might not be able to develop and market these products effectively, if at all. In addition, a lack of development and marketing collaborations might lead to significant delays in introducing proposed products into certain markets and/or reduced sales of proposed products in such markets.

***We rely on data provided by our collaborators and others that has not been independently verified and could prove to be false, misleading, or incomplete.***

We rely on third-party vendors, scientists, and collaborators to provide us with significant data and other information related to our projects, preclinical studies and clinical trials, and our business. If these third parties provide inaccurate, misleading, or incomplete data, our business, prospects, and results of operations could be materially adversely affected.

***Preclinical and clinical testing required for our product candidates is expensive and time-consuming, and the outcome is uncertain.***

In order to obtain FDA approval to market a new drug product, we must demonstrate safety and effectiveness in humans. To meet these requirements, we must conduct extensive preclinical testing and sufficient adequate and well-controlled clinical trials. Conducting clinical trials is a lengthy, time consuming, and expensive process. The length of time might vary substantially according to the type, complexity, novelty, and intended use of the product candidate, and often can be several years or more per trial. Delays associated with products for which we are directly conducting preclinical studies or clinical trials might cause us to incur additional operating expenses. The commencement and rate of completion of clinical trials might be delayed by many factors, including, for example:

- the lack of effectiveness during clinical trials;
- the emergence of unforeseen safety issues;
- inability to manufacture sufficient quantities of qualified materials under current Good Manufacturing Practices, or cGMPs, for use in clinical trials;
- slower than expected rates of patient recruitment;
- failure to recruit a sufficient number of patients;
- modification of clinical trial protocols;
- changes in regulatory requirements for clinical trials;
- delays, suspension, or termination of clinical trials by the institutional review board or ethics committee responsible for overseeing the study at a particular study site; and
- government, institutional review board, ethics committee, or other regulatory delays or clinical holds requiring suspension or termination of the trials.

The results from preclinical testing and early clinical trials are not necessarily predictive of results obtained in later clinical trials. Accordingly, even if we obtain or have obtained positive results from preclinical studies or early clinical trials, we might not achieve the same success in future clinical trials. For example, positive results were observed in earlier clinical trials of each of VEN 307 and VEN 309, but the subsequent clinical trials were not successful. Further, clinical trials might not provide statistically significant data supporting a product candidate's safety and effectiveness to meet the requisite regulatory approvals.

We have used and intend to continue to rely on one or more contract research organizations, or CROs, to conduct our preclinical studies and clinical trials. We are highly dependent on these CROs to conduct our trials in accordance with the requirements of the FDA and good scientific practice. In the event the CROs fail to perform their duties in such a fashion, we may not obtain regulatory approval for any of our product candidates.

The failure of preclinical studies and clinical trials to demonstrate safety and effectiveness for the desired indications could harm the development of that product candidate and other product candidates. This failure could cause us to abandon a product candidate and could delay development of other product candidates. Any delay in, or termination of, our preclinical studies or clinical trials would delay the filing of our New Drug Applications, or NDAs, with the FDA and, ultimately, our ability to commercialize our product candidates and generate product revenues. Any change in, or termination of, our clinical trials could materially harm our business, financial condition, and results of operation.

***Unforeseen safety issues could hinder the development of our product candidates and their adoption, if approved.***

Safety issues could arise during development of our product candidates, which might delay testing or prevent further development entirely. We have not yet tested our HBV therapy or VEN 310 and safety issues could arise during that planned testing or testing of any other product candidates. If a product is approved, any limitation on use that might be necessary could hinder its adoption in the marketplace. In addition, if any product is approved, it could be used against any instructions that we publish that limit its use, which could subject us to litigation.

***We lack suitable facilities for certain preclinical and clinical testing and expect to rely on third parties to conduct some of our research and preclinical testing and our clinical trials and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such research, testing or trials.***

We do not have sufficient facilities to conduct all of our anticipated preclinical and clinical testing. As a result, we expect to contract with third parties to conduct most or all preclinical and clinical testing required for regulatory approval for our product candidates. We currently plan to outsource all clinical testing to third parties and are reliant on the services of these third parties to conduct studies on our behalf. If we are unable to continue with or retain third parties for these purposes on acceptable terms, we may be unable to successfully develop our product candidates. In addition, any failures by third parties to adequately perform their responsibilities may delay the submission of our product candidates for regulatory approval, which would impair our financial condition and business prospects.

Our reliance on these third parties for research and development activities also reduces our control over these activities but will not relieve us of our responsibilities. For example, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific requirements and standards, and our reliance on third parties does not relieve us of our regulatory responsibilities. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. In addition, these third parties are not our employees, and except for remedies available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our clinical, nonclinical and preclinical programs. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our research, preclinical studies or clinical trials may be extended, delayed or terminated and we may not be able to obtain, or may be delayed in obtaining, regulatory approvals for our product candidates. As a result, our results of operations and business prospects would be harmed, our costs could increase and our ability to generate revenues could be delayed.

***We will rely exclusively on third parties to formulate and manufacture our product candidates.***

We do not have and do not intend to establish our own manufacturing facilities. Consequently, we lack the physical plant to formulate and manufacture our own product candidates. If any product candidate we might develop or acquire in the future receives FDA approval, we will rely on one or more third-party contractors to manufacture our products. If, for any reason, we become unable to rely on any future source to manufacture our product candidates, either for clinical trials or, at some future date, for commercial quantities, then we would need to identify and contract with additional or replacement third-party manufacturers to manufacture compounds for preclinical, clinical and commercial purposes. We might not be successful in identifying additional or replacement third-party manufacturers, or in negotiating acceptable terms with any that we do identify. If we are unable to secure and maintain third-party manufacturing capacity, the development and sales of our products and our financial performance might be materially affected.

In addition, before any of our collaborators can begin to commercially manufacture our product candidates, each manufacturing facility and process is subject to regulatory review. Manufacturing of drugs for clinical and commercial purposes must comply with the FDA's cGMPs, and applicable non-U.S. regulatory requirements. The cGMP requirements govern quality control and documentation policies and procedures. Complying with cGMP and non-U.S. regulatory requirements will require that we expend time, money, and effort in production, recordkeeping, and quality control to assure that the product meets applicable specifications and other requirements. Any contracted manufacturing facility must also pass a pre-approval inspection prior to FDA approval. Failure to pass a pre-approval inspection might significantly delay FDA approval of our product candidates. If any of our future collaborators fails to comply with these requirements, it would be subject to possible regulatory action which could limit the jurisdictions in which we are permitted to sell our products, if approved. As a result, our business, financial condition, and results of operations might be materially harmed.

Our reliance on third-party manufacturers exposes us to the following risks:

- We might be unable to identify manufacturers for commercial supply on acceptable terms or at all because the number of potential manufacturers is limited and the FDA must approve any replacement contractor. This approval would generally require compliance inspections. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our products after receipt of FDA approval, if any.

- Our third-party manufacturers might be unable to formulate and manufacture our product candidates in the volume and of the quality required to meet our clinical and, if approved, commercial needs.

- Our contract manufacturers might not perform as agreed or might not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products.

- One or more of our contract manufacturers could be foreign, which increases the risk of shipping delays and adds the risk of import restrictions.

- Drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA and corresponding state agencies to ensure strict compliance with cGMP and other government regulations and corresponding foreign requirements. We would not have complete control over third-party manufacturers' compliance with these regulations and requirements.

- If any third-party manufacturer makes improvements in the manufacturing process for our product candidates, we might not own, or might have to share, the intellectual property rights to the innovation with our licensors.

- We might compete with other companies for access to these manufacturers' facilities and might be subject to manufacturing delays if the manufacturers give other clients higher priority than us.

Each of these risks could delay our development efforts, preclinical studies and clinical trials or the approval, if any, of our product candidates by the FDA or the commercialization of our product candidates and could result in higher costs or deprive us of potential product revenues. As a result, our business, financial condition, and results of operations might be materially harmed.

***If we cannot compete successfully for market share against other drug companies, we might not achieve sufficient product revenues and our business will suffer.***

If our product candidates receive FDA approval, they will compete with a number of existing and future drugs and therapies developed, manufactured and marketed by others. Existing or future competing drugs might provide greater therapeutic convenience or clinical or other benefits for a specific indication than our product candidates, or might offer comparable performance at a lower cost. If our product candidates fail to capture and maintain market share, we might not achieve sufficient product revenues and our business will suffer.

We might compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors, either alone or together with their collaborative partners, operate larger research and development programs or have substantially greater financial resources than we do, as well as significantly greater experience in:

- developing drugs;

- undertaking preclinical testing and human clinical trials;

- obtaining FDA and other regulatory approvals of drugs;

- formulating and manufacturing drugs; and

- launching, marketing and selling drugs.

We might not obtain the same resources and experience as our competitors. If we are unable to perform these tasks effectively and efficiently, our results of operations might be materially adversely affected.

***Developments by competitors might render our product candidates or technologies obsolete or non-competitive.***

The pharmaceutical and biotechnology industries are intensely competitive. In addition, the clinical and commercial landscape for HBV and CDAD is rapidly changing; we expect new data from commercial and clinical-stage products to continue to emerge. We will compete with organizations that have existing treatments and that are or will be developing treatments for the indications that our product candidates target. If our competitors develop effective treatments for HBV, CDAD or any other indication or field we might pursue, and successfully commercialize those treatments, our business and prospects might be materially harmed, due to intense competition in these markets.

***If we are not able to develop collaborative marketing relationships with licensees or partners, or create an effective internal sales, marketing, and distribution capability, we might be unable to market our products successfully.***

To market our product candidates, if approved, we will have to establish our own marketing and sales force or out-license our product candidates to, or collaborate with, larger firms with experience in marketing and selling pharmaceutical products. There can be no assurance that we will be able to successfully establish our own marketing capabilities or establish marketing, sales, or distribution relationships with third parties; that such relationships, if established, will be successful; or that we will be successful in gaining market acceptance for our product candidates. To the extent that we enter into any marketing, sales, or distribution arrangements with third parties, our product revenues will be lower than if we marketed and sold our products directly, and any revenues we receive will depend upon the efforts of such third parties. If we are unable to establish such third-party sales and marketing relationships, or choose not to do so, we will have to establish our own in-house capabilities. We, as a company, have no experience in marketing or selling pharmaceutical products and currently have no sales, marketing, or distribution infrastructure. To market any of our products directly, we would need to develop a marketing, sales, and distribution force that both has technical expertise and the ability to support a distribution capability. To establish our own marketing, sales, and distribution capacity would significantly increase our costs, and require substantial additional capital. In addition, there is intense competition for proficient sales and marketing personnel, and we might not be able to attract individuals who have the qualifications necessary to market, sell, and distribute our products. There can be no assurance that we will be able to establish internal marketing, sales, or distribution capabilities.

***Physicians and patients might not accept and use our drugs.***

Even if the FDA approves one of our product candidates, physicians and patients might not accept and use it. Acceptance and use of our products will depend upon a number of factors, including:

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

If our current product candidates are approved, we expect sales to generate substantially all of our revenues for the foreseeable future, and as a result, the failure of these products to find market acceptance would harm our business and would require us to seek additional financing.

***Our ability to generate product revenues will be diminished if our products sell for inadequate prices or patients are unable to obtain adequate levels of reimbursement.***

Our ability to commercialize our product candidates, if approved, alone or with collaborators, will depend in part on the extent to which reimbursement will be available from:

- government and health administration authorities;
- private health maintenance organizations and health insurers; and
- other healthcare payors.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payors, including Medicare, are challenging the prices charged for medical products and services. Government and other healthcare payors increasingly attempt to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs. Even if our product candidates are approved by the FDA, insurance coverage might not be available, and reimbursement levels might be inadequate, to cover our products. If government and other healthcare payors do not provide adequate coverage and reimbursement levels for our products, once approved, market acceptance of such products could be reduced.

Proposals to modify the current health care system in the U.S. to improve access to health care and control its costs are continually being considered by the federal and state governments. In March 2010, the U.S. Congress passed landmark healthcare reform legislation, of which the coverage and reimbursement provisions went into effect in late 2013. We cannot predict what impact on federal reimbursement policies and regulatory compliance landscape this legislation will have in general or on our business specifically. We expect continued judicial and legislative review and assessment of this legislation and possibly alternative health care reform proposals. We cannot predict judicial results or whether new proposals will be made or adopted, when they may be adopted or what impact they may have on us if they are adopted.

Health administration authorities in countries other than the U.S. may not provide reimbursement for our product candidates at rates sufficient for us to achieve profitability, or at all. Like the U.S., these countries could adopt health care reform proposals and could materially alter their government-sponsored health care programs by reducing reimbursement rates.

Any reduction in reimbursement rates under Medicare or private insurers or foreign health care programs could negatively affect the pricing of our product candidates. If we are not able to charge a sufficient amount for our products, then our margins and our profitability will be adversely affected.

***If we lose key management or scientific personnel, cannot recruit qualified employees, directors, officers, or other significant personnel or experience increases in our compensation costs, our business might materially suffer.***

We are highly dependent on the services of our Chairman and Chief Executive Officer, Dr. Russell H. Ellison, our President and Chief Operating Officer, Derek Small, our Chief Medical Officer and Vice President of Research and Development, Dr. Uri Lopatin, our Chief Scientific Officer, Dr. Lee D. Arnold, and our Chief Financial Officer, David J. Barrett. Our employment agreements with Dr. Ellison, Mr. Small, Dr. Lopatin, Dr. Arnold and Mr. Barrett do not ensure their retention. This is also true for our other management team members, both present and future.

Furthermore, our future success also depends, in part, on our ability to identify, hire, and retain additional management team members as our operations grow. We expect to experience intense competition for qualified personnel and might be unable to attract and retain the personnel necessary for the development of our business. Finally, we do not currently maintain, nor do we intend to obtain in the future, “key man” life insurance that would compensate us in the event of the death or disability of any of the members of our management team.

***If we cannot enforce non-compete and confidentiality provisions applicable to our employees and consultants, our business might materially suffer.***

We include a non-compete provision in any employment agreement we enter into with an employee, including those for Messrs. Small and Barrett and Drs. Ellison and Arnold, that runs during the term of the agreement and for a period of time after termination, depending on the individual.

We include a confidentiality provision in any employment or consulting agreement we enter into with an employee or a consultant. The confidentiality provision runs during the term of the agreement and thereafter without limit.

For future employees with whom we do not enter into an employment agreement, we will enter into a confidentiality agreement with the same provisions described above.

To be able to enforce these non-compete and confidentiality provisions we would need to know of any breach and have sufficient funds to enforce the provisions. We cannot assure you that we would know of or be able to afford enforcement of any breach. In addition, such provisions are subject to state law and interpretation by courts, which could limit the scope and duration of these provisions. Any limitation on or non-enforcement of these non-compete and confidentiality provisions could have an adverse effect on our business.

***If we are unable to hire additional qualified personnel, our ability to grow our business might be harmed.***

At September 16, 2014, we had 18 employees, 10 consultants and multiple contract research organizations with whom we have contracted. We will need to hire or contract with additional qualified personnel with expertise in clinical research and testing, government regulation, formulation and manufacturing and sales and marketing to commercialize our HBV therapy and VEN 310 or any other product we may seek to develop. We compete for qualified individuals with numerous biopharmaceutical companies, universities and other research institutions. Competition for these individuals is intense, and we cannot be certain that our search for such personnel will be successful. Attracting and retaining qualified personnel will be critical to our success.

***We might not successfully manage our growth.***

Our success will depend upon the expansion of our operations and the effective management of our growth, which will place a significant strain on our current and future management and other administrative and operational resources. To manage this growth, we must expand our facilities, augment our operational, financial and management systems and hire and train additional qualified personnel. If we are unable to manage our growth effectively, our business would be harmed.

***We might seek to develop our business through acquisitions of or investment in new or complementary businesses, products or technologies, and the failure to manage these acquisitions or investments, or the failure to integrate them with our existing business, could have a material adverse effect on us.***

We might consider opportunities to acquire or invest in other technologies, products and businesses that might enhance our capabilities or complement our current product candidates. Potential and completed acquisitions and strategic investments involve numerous risks, including potential problems or issues associated with the following:

- assimilating the purchased technologies, products or business operations;
- maintaining uniform standards, procedures, controls and policies;
- unanticipated costs associated with the acquisition or investment;
- diversion of our management's attention from our preexisting business;
- maintaining or obtaining the necessary regulatory approvals or complying with regulatory standards; and
- adverse effects on existing business operations.

We have no current commitments with respect to any acquisition or investment in other technologies or businesses. We do not know if we will identify suitable acquisitions, whether we will be able to successfully complete any acquisitions, or whether we will be able to successfully integrate any acquired product, technology or business into our business or retain key personnel, suppliers or collaborators.

Our ability to successfully develop our business through acquisitions would depend on our ability to identify, negotiate, complete and integrate suitable target businesses or technologies and obtain any necessary financing. These efforts could be expensive and time consuming and might disrupt our ongoing operations. If we are unable to efficiently integrate any acquired business, technology or product into our business, our business and financial condition might be adversely affected.

**Risks Related to Our Regulatory and Legal Environment**

***We are subject to extensive and costly government regulation.***

Product candidates employing our technology are subject to extensive and rigorous domestic government regulation including regulation by the FDA, the Centers for Medicare and Medicaid Services, other divisions of the U.S. Department of Health and Human Services, the U.S. Department of Justice, state and local governments, and their respective foreign equivalents. The FDA regulates the research, development, preclinical and clinical testing, manufacture, safety, effectiveness, record-keeping, reporting, labeling, storage, approval, advertising, promotion, sale, distribution, import, and export of pharmaceutical products. The FDA regulates small molecule chemical entities, whether administered orally, topically or by injection, as drugs, subject to an NDA, under the Federal Food, Drug, and Cosmetic Act. If products employing our technologies are marketed abroad, they will also be subject to extensive regulation by foreign governments, whether or not they have obtained FDA approval for a given product and its uses. Such foreign regulation might be equally or more demanding than corresponding U.S. regulation.

Government regulation substantially increases the cost and risk of researching, developing, manufacturing, and selling our product candidates. The regulatory review and approval process, which includes preclinical testing and clinical trials of each product candidate, is lengthy, expensive, and uncertain. We or our collaborators must obtain and maintain regulatory authorization to conduct clinical trials and approval for each product we intend to market, and the manufacturing facilities used for the products must be inspected and meet legal requirements. Securing regulatory approval requires submitting extensive preclinical and clinical data and other supporting information for each proposed therapeutic indication in order to establish the product's safety and efficacy for each intended use. The development and approval process might take many years, requires substantial resources, and might never lead to the approval of a product.

Even if we are able to obtain regulatory approval for a particular product, the approval might limit the intended medical uses for the product, limit our ability to promote, sell, and distribute the product, require that we conduct costly post-marketing surveillance, and/or require that we conduct ongoing post-marketing studies. Material changes to an approved product, such as, for example, manufacturing changes or revised labeling, might require further regulatory review and approval. Once obtained, any approvals might be withdrawn, including, for example, if there is a later discovery of previously unknown problems with the product, such as a previously unknown safety issue.

If we, our collaborators, or our contract manufacturers fail to comply with applicable regulatory requirements at any stage during the regulatory process, such noncompliance could result in, among other things, delays in the approval of applications or supplements to approved applications; refusal of a regulatory authority, including the FDA, to review pending market approval applications or supplements to approved applications; untitled letters or warning letters; fines; import and export restrictions; product recalls or seizures; injunctions; total or partial suspension of production; civil penalties; withdrawals of previously approved marketing applications or licenses; recommendations by the FDA or other regulatory authorities against governmental contracts; and/or criminal prosecutions.

***We might not obtain the necessary U.S. or worldwide regulatory approvals to commercialize any product candidate.***

We cannot assure you that we will receive the approvals necessary to commercialize for sale any of our product candidates, or any product candidate we acquire or develop in the future. We will need FDA approval to commercialize our product candidates in the U.S. and approvals from the FDA-equivalent regulatory authorities in foreign jurisdictions to commercialize our product candidates in those jurisdictions. In order to obtain FDA approval of any product candidate, we must submit to the FDA an NDA demonstrating that the product candidate is safe for humans and effective for its intended use. This demonstration requires significant research, preclinical studies, and clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product candidate and requires substantial resources for research, development and testing. We cannot predict whether our research and clinical approaches will result in drugs that the FDA considers safe for humans and effective for their indicated uses. The FDA has substantial discretion in the drug approval process and might require us to conduct additional preclinical and clinical testing, perform post-marketing studies or otherwise limit or impose conditions on any approval we obtain. For example, the FDA proposed that we include an additional treatment arm in our pivotal Phase III trial for our former product candidate VEN 309, which increased the cost of that trial.

The approval process might also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals might:

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

Even if we comply with all FDA requests, the FDA might ultimately reject one or more of our NDAs. We cannot be sure that we will ever obtain regulatory approval for our product candidates. Failure to obtain FDA approval of our product candidates will severely undermine our business by leaving us without a saleable product, and therefore without any source of revenues, until another product candidate could be developed or obtained. There is no guarantee that we will ever be able to develop an existing, or acquire another, product candidate.

In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize any product candidates. The risks associated with foreign regulatory approval processes are similar to the risks associated with the FDA approval procedures described above. We cannot assure you that we will receive the approvals necessary to commercialize our product candidates for sale outside the U.S.

***Even if approved, our product candidates will be subject to extensive post-approval regulation.***

Once a product candidate is approved, numerous post-approval requirements apply. Among other things, the holder of an approved NDA is subject to ongoing FDA oversight monitoring and reporting obligations, including obligations to monitor and report adverse events and instances of the failure of a product to meet the specifications in the NDA. Application holders must submit new or supplemental applications and obtain FDA approval for changes to the approved product, product labeling, or manufacturing process. Application holders also must submit advertising and other promotional material to the FDA and report on ongoing clinical trials. The FDA also has the authority to require changes in the labeling of approved drug products and to require post-marketing studies.

Advertising and promotional materials must comply with FDA rules in addition to other applicable federal and state laws. The distribution of product samples to physicians must comply with the requirements of the Prescription Drug Marketing Act. Manufacturing facilities remain subject to FDA inspection and must continue to adhere to the FDA's cGMP requirements. Application holders must obtain FDA approval for product, manufacturing, and labeling changes, depending on the nature of the change. Sales, marketing, and scientific/educational grant programs, among other activities, must comply with the anti-fraud and abuse provisions of the Social Security Act, the False Claims Act, and similar state laws, each as amended. Pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990 and the Veteran's Health Care Act of 1992, each as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

Depending on the circumstances, failure to meet these post-approval requirements can result in criminal prosecution, fines, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, or refusal to allow us to enter into supply contracts, including government contracts. In addition, even if we comply with FDA and other requirements, new information regarding the safety or effectiveness of a product could lead the FDA to modify or withdraw product approval.

***We face the risk of product liability claims and might not be able to obtain insurance.***

Our business exposes us to the risk of product liability claims that are inherent in the development of drugs. If the use of one or more of our or our collaborators' drugs harms people, we might be subject to costly and damaging product liability claims brought against us by clinical trial participants, consumers, health care providers, pharmaceutical companies or others selling our products. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products we develop. We expect to obtain clinical trial insurance for our product candidates prior to beginning clinical trials. We cannot predict all of the possible harms or side effects that might result and, therefore, the amount of insurance coverage we obtain, if any, in the future might not be adequate to cover all liabilities we might incur. We intend to expand our insurance coverage to include product liability insurance covering the sale of commercial products if we obtain marketing approval for our drug candidates in development, but we might be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. If we are unable to obtain insurance at an acceptable cost or otherwise protect against potential product liability claims, we will be exposed to significant liabilities, which might materially and adversely affect our business and financial position. If we are sued for any injury allegedly caused by our or our collaborators' products, our liability could exceed our total assets and our ability to pay the liability. A successful product liability claim or series of claims brought against us would decrease our cash and could cause the value of our common stock to decrease.

***We might be exposed to liability claims associated with the use of hazardous materials and chemicals.***

Our research, development and manufacturing activities and/or those of our third-party contractors might involve the controlled use of hazardous materials and chemicals. Although we will strive to have our safety procedures, and those of our contractors, for using, storing, handling and disposing of these materials comply with federal, state and local laws and regulations, we cannot completely eliminate the risk of accidental injury or contamination from these materials. In the event of such an accident, we could be held liable for any resulting damages, and any liability could materially adversely affect our business, financial condition and results of operations. In addition, the federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous or radioactive materials and waste products might require us to incur substantial compliance costs that could materially adversely affect our business, financial condition and results of operations. We currently do not carry hazardous materials liability insurance. We intend to obtain such insurance in the future if necessary, but cannot give assurance that we could obtain such coverage.

**Risks Related to Our Intellectual Property**

***Our business depends on protecting our intellectual property.***

If we and our licensors IURTC and Therabiome do not obtain protection for our respective intellectual property rights, our competitors might be able to take advantage of our research and development efforts to develop competing drugs. Our success, competitive position and future revenues, if any, depend in part on our ability and the abilities of our licensors to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights and to operate without infringing the proprietary rights of third parties.

We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and medicines that are important to our business. To date, although our licensors have filed patent applications, we do not own or have any rights to any issued patents that cover any of our product candidates, and we cannot be certain that we will secure any rights to any issued patents with claims that cover any of our proprietary medicines and technologies. The patent prosecution process is expensive and time-consuming and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection.

The patent process also is subject to numerous risks and uncertainties, and there can be no assurance that we will be successful in protecting our products by obtaining and defending patents. These risks and uncertainties include the following:

- Any patent rights, if obtained, might be challenged, invalidated, or circumvented, or otherwise might not provide any competitive advantage;

- Our competitors, many of which have substantially greater resources than we do and many of which might make significant investments in competing technologies, might seek, or might already have obtained, patents that will limit, interfere with, or eliminate our ability to make, use, and sell our potential products either in the U.S. or in international markets;

- As a matter of public policy regarding worldwide health concerns, there might be significant pressure on the U.S. government and other international governmental bodies to limit the scope of patent protection both inside and outside the U.S. for disease treatments that prove successful; and

- Countries other than the U.S. might have patent laws that provide less protection than those governing U.S. courts, allowing foreign competitors the ability to exploit these laws to create, develop, and market competing products.

In addition, the U.S. Patent and Trademark Office and patent offices in other jurisdictions have often required that patent applications concerning pharmaceutical and/or biotechnology-related inventions be limited or narrowed substantially to cover only the specific innovations exemplified in the patent application, thereby limiting the scope of protection against competitive challenges. Thus, even if we or our licensors are able to obtain patents, the patents might be substantially narrower than anticipated.

Patent and other intellectual property protection is crucial to the success of our business and prospects, and there is a substantial risk that such protections, if obtained, will prove inadequate. Our business and prospects will be harmed if we fail to obtain these protections or they prove insufficient.

We might be involved from time to time in litigation to determine the enforceability, scope and validity of our proprietary rights. Any such litigation could result in substantial cost and divert management's attention from our operations.

***We rely on trade secret protections through confidentiality agreements with our employees, customers and other parties, and the breach of these agreements could adversely affect our business and prospects.***

We rely on trade secrets and proprietary know-how, which we seek to protect, in part, through confidentiality, invention, and non-disclosure agreements with our employees, scientific advisors, consultants, collaborators, suppliers, and other parties. There can be no assurance that these agreements will not be breached, that we would have adequate remedies for any such breach or that our trade secrets will not otherwise become known to or independently developed by our competitors. If any of these events occurs, or we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced.

***If we infringe the rights of third parties we might have to forgo selling our future products, pay damages, or defend against litigation.***

If our product candidates, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we might have to:

- obtain licenses, which might not be available on commercially reasonable terms, if at all;

- abandon an infringing product candidate;

- redesign our products or processes to avoid infringement;

- stop using the subject matter claimed in the patents held by others;

- pay damages; and/or

- defend litigation or administrative proceedings which might be costly whether we win or lose, and which could result in a substantial diversion of our financial and management resources.

Any of these events could substantially harm our earnings, financial condition and operations.

**Risks Related to Our Common Stock**

***We might not be able to maintain the listing of our common stock on The NASDAQ Capital Market.***

Our common stock is listed on The NASDAQ Capital Market under the symbol "ASMB." We might not be able to maintain the listing standards of that exchange. If we fail to maintain the listing requirements, our common stock might trade on the OTC Bulletin Board or in the "pink sheets" maintained by Pink OTC Markets, Inc. These alternative markets are generally considered to be markets that are less efficient and less broad than The NASDAQ Capital Market.

***The price of our common stock might fluctuate significantly, and you could lose all or part of your investment.***

Since we went public on December 22, 2010 and through September 16, 2014, the price of our common stock has fluctuated between $0.85 and $21.00 (without giving effect to the 1-for-5 reverse stock split effected on July 11, 2014), with significant volatility after we announced on June 25, 2012 that VEN 309 failed to meet the endpoints of our Phase III trial, and after we announced in February 2014 that VEN 307 demonstrated no significant improvement compared to placebo. Continued volatility in the market price of our common stock might prevent you from being able to sell your shares of our common stock at or above the price you paid for such shares. The trading price of our common stock might be volatile and subject to wide price fluctuations in response to various factors, including:

- the receipt or loss of required regulatory approvals for our product candidates;
- results of our preclinical studies and clinical trials and other studies involving our product candidates;
- availability of capital;
- future sales of our common stock;
- sale of shares of our common stock by our significant stockholders or members of our management;
- additions or departures of key personnel;
- investor perceptions of us and the pharmaceutical industry;
- issuance of new or changed securities analysts' reports or recommendations, or the announcement of any changes to our credit rating;
- success or failure of our product candidates;
- introduction of new products or announcements of significant contracts, acquisitions or capital commitments by us or our competitors;
- threatened or actual litigation and government investigations;
- legislative, political or regulatory developments;
- the overall performance of the equity markets;
- actual or anticipated fluctuations in our quarterly financial and operating results;
- general economic conditions;
- changes in interest rates; and
- changes in accounting standards, policies, guidance, interpretations or principles.

These and other factors might cause the market price of our common stock to fluctuate substantially, which might limit or prevent investors from readily selling their shares of our common stock and might otherwise negatively affect the liquidity of our common stock. In addition, in recent years, the stock market has experienced significant price and volume fluctuations. This volatility has had a significant impact on the market price of securities issued by many companies across many industries. The changes frequently appear to occur without regard to the operating performance of the affected companies. Accordingly, the price of our common stock could fluctuate based upon factors that have little or nothing to do with our company, and these fluctuations could materially reduce our share price.

***We do not intend to pay dividends for the foreseeable future and our stock may not appreciate in value.***

We currently intend to retain our future earnings, if any, to finance the operation and growth of our business and do not expect to pay any cash dividends in the foreseeable future. As a result, the success of an investment in shares of our common stock will depend upon any future appreciation in its value. There is no guarantee that shares of our common stock will appreciate in value or that the price at which our stockholders have purchased their shares will be able to be maintained.

***The requirements of being a public company adds to our operating costs and might strain our resources and distract our management.***

As a public company, we face increased legal, accounting, administrative and other costs and expenses not faced by private companies. We are subject to the reporting requirements of the Securities Exchange Act of 1934, which requires that we file annual, quarterly and current reports with respect to our business and financial condition, and the rules and regulations implemented by the SEC, the Sarbanes-Oxley Act of 2002, and The NASDAQ Capital Market, each of which imposes additional reporting and other obligations on public companies. These rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly, although we are currently unable to estimate these costs with any degree of certainty. Complying with these requirements might divert management's attention from other business concerns, which could have a material adverse effect on our prospects, business, and financial condition.

Additionally, the expenses incurred by public companies generally for reporting and corporate governance purposes have been increasing. These increased costs will require us to divert a significant amount of money that we could otherwise use to develop our product candidates or otherwise expand our business. If we are unable to satisfy our obligations as a public company, we could be subject to delisting of our common stock, fines, sanctions and other regulatory action and potentially civil litigation.

***Several provisions of the Delaware General Corporation Law and our Amended and Restated Certificate of Incorporation and Bylaws could discourage, delay or prevent a merger or acquisition, which could adversely affect the market price of our securities.***

Several provisions of the Delaware General Corporation Law and our Amended and Restated Certificate of Incorporation and Bylaws could discourage, delay or prevent a merger or acquisition that stockholders may consider favorable, and the market price of our securities could be reduced as a result. These provisions include:

- "blank check" preferred stock;
- prohibiting us from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder unless certain provisions are met;
- prohibiting cumulative voting in the election of directors;
- limiting the persons who may call special meetings of stockholders;
- establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings; and
- The ability of our board of directors to increase its size and fill vacancies.

***If securities analysts downgrade our stock or cease coverage of us, the price of our stock could decline.***

The trading market for our common stock relies in part on the research and reports that industry or financial analysts publish about us or our business. Currently, two financial analysts publish reports about us and our business. We do not control these or any other analysts. Furthermore, there are many large, well-established, publicly traded companies active in our industry and market, which may mean that it is less likely that we will receive widespread analyst coverage. If any of the analysts who cover us downgrade our stock, our stock price would likely decline rapidly. If these analysts cease coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline.

***Substantial future sales of our common stock in the public market may depress our stock price and make it difficult for you to recover the full value of your investment in our shares of securities.***

As of September 16, 2014, we had 8,688,059 shares of common stock outstanding. Substantially all of these shares are available for public sale, subject in some cases to volume and other limitations or delivery of a prospectus. The market price of our common stock may decline if our common stockholders sell a large number of shares of our common stock in the public market, or the market perceives that such sales may occur. In addition, at September 16, 2014, we had outstanding options and warrants to purchase an aggregate of 2,560,000 shares and 151,236 shares, respectively, of our common stock. If these options or warrants are exercised and the shares issued upon exercise are sold, the market price of our securities may also decline. These factors also could impair our ability to raise needed capital by depressing the price at which we could sell our securities.

**Risks Related to This Offering**

***Our management will have broad discretion over the use of the net proceeds from this offering and we may use the net proceeds in ways with which you disagree or which do not produce beneficial results.***

We currently intend to use the net proceeds from this offering for general corporate purposes, including funding our preclinical research and development activities and for working capital. We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us or our stockholders. The failure of our management to use such funds effectively could have a material adverse effect on our business, prospects, financial condition, and results of operation.

***Following this offering, our executive officers, directors and principal stockholders will continue to own a significant percentage of our stock and may be able to control matters submitted to stockholders for approval.***

Upon completion of this offering, our executive officers, directors and a small number of our stockholders will continue to own a significant percentage of our outstanding common stock, which percentage could increase upon the exercise of options held by some of these individuals. As a result, if these stockholders were to choose to act together, they could exert significant influence on our management and affairs as well as matters submitted to our stockholders for approval, including the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that you may desire.

***A substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock.***

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our common stock are, and the shares of common stock sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act. In addition, as of September 16, 2014, 2,711,236 shares of our common stock are issuable upon exercise of outstanding options and warrants.

***You will experience immediate dilution in the book value per share of the securities you purchase in this offering.***

Because the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on a public offering price of $ per share, and a net tangible book value per share of our common stock of $4.34 as of June 30, 2014, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of $ per share in the net tangible book value of the common stock you purchase. See “Dilution” for a more detailed discussion of the dilution you will incur if you purchase our securities in this offering.

***If you purchase the securities sold in this offering, you may experience dilution if we issue additional equity securities in future fundraising transactions.***

If we issue additional common stock, or securities convertible into or exchangeable or exercisable for common stock, our stockholders, including investors who purchase shares in this offering, will experience dilution, and any such issuances may result in downward pressure on the price of our common stock.

## USE OF PROCEEDS

We estimate that the net proceeds from the sale of the common stock we are offering will be approximately $ million, based on the offering price of $ per share, and after deducting the placement agent fees, and $ of estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for general corporate purposes, including funding our research and development activities (including preclinical studies), and for working capital.

We have not yet determined the amount of net proceeds to be used specifically for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds from this offering. Pending any use, as described above, we intend to invest the net proceeds in high-quality, short-term, interest-bearing securities.

## DIVIDEND POLICY

We currently do not plan to declare dividends on shares of our common stock in the foreseeable future. We expect to retain our future earnings, if any, for use in the operation and expansion of our business. The payment of cash dividends in the future, if any, will be at the discretion of our board of directors and will depend upon such factors as earnings levels, capital requirements, our overall financial condition and any other factors our board deems relevant.

## DILUTION

If you purchase shares in this offering, your interest will be diluted to the extent of the difference between the offering price per share of our common stock and the net tangible book value per share of our common stock after this offering. Our net tangible book value as of June 30, 2014 was $20.2 million, or $4.34 per share of common stock. “Net tangible book value” is total assets minus the sum of liabilities and intangible assets. “Net tangible book value per share” is net tangible book value divided by the total number of shares of common stock outstanding.

After giving effect to the sale by us of shares of our common stock offered in this offering at an offering price of $ per share, and after deducting the placement agent fees and $ of estimated offering expenses that we will pay, our net tangible book value as of June 30, 2014 would have been approximately $ million, or $ per share of common stock. This amount represents an immediate increase in net tangible book value of $ per share to existing stockholders and an immediate dilution of $ per share to purchasers in this offering.

The following table illustrates dilution:

| | | |
|---|---|---|
| Offering price per share | | $ |
| Net tangible book value per share as of June 30, 2014 | $ 4.34 | |
| Increase in net tangible book value per share after this offering | $ | |
| Pro forma net tangible book value per share after this offering | | $ |
| Dilution per share to new investors in this offering | | $ |

The above table is based on 4,679,779 shares outstanding as of June 30, 2014 and excludes, as of that date:

- 2,560,000 shares of our common stock subject to outstanding options having an exercise price of $7.20 per share (issued July 10, 2014);
- 151,236 shares of our common stock that have been reserved for issuance upon exercise of outstanding warrants at a weighted average exercise price of $39.65 per share; and
- shares of our common stock issued and options to purchase common stock assumed in the Assembly Merger.

To the extent that any outstanding options or warrants are exercised, new options are issued under our 2014 Stock Incentive Plan, or we otherwise issue additional shares of common stock in the future, at a price less than the public offering price, there will be further dilution to new investors.

## DESCRIPTION OF SECURITIES

In this offering, we are offering up to shares of common stock. The material terms and provisions of our common stock and each other class of our securities which qualifies or limits our common stock are described under the caption “Description of Common Stock” starting on page 34 of the accompanying prospectus.

## PLAN OF DISTRIBUTION

We have entered into a placement agent agreement, dated as of October , 2014, with William Blair & Company, L.L.C. Subject to the terms and conditions contained in the placement agent agreement, William Blair & Company, L.L.C. has agreed to act as the sole placement agent in connection with the sale of up to shares of common stock. use its best efforts to solicit purchasers for the securities in this offering. There is no required minimum number of securities is it required to arrange the purchase or sale of any specific number or dollar amount of the securities, but it has agreed to use its best efforts to solicit purchasers for the securities in this offering. There is no required minimum number of securities that must be sold as a condition to completion of the offering.

We will enter into a securities purchase agreement directly with investors in connection with this offering, and we will only sell to investors who have entered into the securities purchase agreement. Our obligation to issue and sell common stock to investors is subject to the conditions set forth in the securities purchase agreement, which may be waived by us in our discretion. An investor's obligation to purchase shares is subject to conditions set forth in the securities purchase agreement, which may be waived by the investor.

Unless investors instruct us otherwise, we will deliver the shares of common stock being issued to the investors electronically upon receipt of investor funds for the purchase of the common stock offered pursuant to this prospectus supplement. We expect to deliver the shares of our common stock being offered pursuant to this prospectus supplement on or about October , 2014.

We have agreed to pay William Blair & Company, L.L.C. our sole placement agent, placement agent commissions and fees in an amount equal to 5.0% of the aggregate proceeds of this offering, plus a retainer fee of $75,000 which will be credited against the 5.0% commission. The following table shows the estimated per share and total cash fees we will pay to the placement agent in connection with the sale of the securities offered pursuant to this prospectus supplement and the accompanying prospectus.

| | |
|---|---|
| Per share placement agent fees | $ |
| Total | $ |

However, because there is no minimum offering amount required as a condition to closing of this offering, the actual total offering commissions, if any, may be substantially less than the total offering amounts set forth above. We estimate the total expenses of this offering will be approximately $ .

The placement agent has informed us that it will not engage in over-allotment, stabilizing transactions or syndicate covering transactions in connection with this offering.

The placement agent agreement provides that the obligations of the placement agent are subject to certain conditions precedent, including the absence of any material adverse changes in our business and the receipt of certain certificates, opinions and letters from us, our counsels and our auditors.

We have agreed to indemnify the placement agent and specified other persons against certain civil liabilities, including liabilities under the Securities Act or the Exchange Act, and to contribute to payments that the placement agent may be required to make in respect of such liabilities.

Our officers and directors have signed lock-up agreements, pursuant to which they have agreed to not, directly or indirectly, offer, sell, agree to sell or otherwise transfer or dispose of any shares of our common stock or any securities convertible into or exchangeable for shares of our common stock, without the prior written consent of the placement agent for a period of 90 days after the date of this prospectus.

Our common stock is traded on the NASDAQ Capital Market under the symbol "ASMB."

The placement agent may distribute this prospectus supplement and the accompanying prospectus electronically.

The placement agent agreement will be included as an exhibit to a Current Report on Form 8-K that we will file with the SEC and that will be incorporated by reference into the registration statement of which this prospectus supplement forms a part.

The placement agent or its affiliates may in the future provide investment banking, commercial banking and/or other services to us from time to time, for which they may in the future receive customary fees and expenses.

## LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon by Wyrick Robbins Yates & Ponton LLP, Raleigh, North Carolina. Goodwin Procter LLP, New York, New York, is acting as counsel for the placement agent in connection with this offering.

## EXPERTS

The balance sheets of Assembly Biosciences, Inc. as of December 31, 2013 and 2012 and the related statements of operations, changes in stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2013, and for the period from October 7, 2005 (inception) to December 31, 2013 have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference, which report expressed an unqualified opinion on the financial statements. Such financial statements have been incorporated herein by reference in reliance on the report of EisnerAmper LLP given upon their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC's public reference facilities at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference facilities. SEC filings are also available at the SEC's web site at http://www.sec.gov. Our common stock is listed on The NASDAQ Capital Market, and you can read and inspect our filings at the offices of the Financial Industry Regulatory Authority, Inc. at 1735 K Street, Washington, D.C. 20006.

This prospectus supplement is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act of 1933, as amended, and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus supplement, and the accompanying prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may inspect a copy of the registration statement, including the exhibits and schedules, without charge, at the public reference room or obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933, as amended, with the SEC with respect to the securities being offered pursuant to this prospectus supplement. This prospectus supplement omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities being offered pursuant to this prospectus supplement. Statements in this prospectus supplement regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in "Where You Can Find More Information." The documents we are incorporating by reference are:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed with the SEC on March 31, 2014;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2014, and June 30, 2014, filed with the SEC on May 14, 2014 and August 14, 2014, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 8, January 16, February 12, April 4, May 19, July 11, July 14, July 30 and August 13, 2014, on Form 8-K/A filed on September 17, 2014, and on Form 8-K filed on October , 2014; and
- our definitive proxy statement on Schedule 14A filed with the SEC on June 9, 2014.

In addition, all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed in such forms that are related to such items unless such Form 8-K expressly provides to the contrary) subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this prospectus supplement.

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

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to Assembly Biosciences, Inc., 99 Hudson Street, 5$^{th}$ Floor, New York, NY, 10013, (646) 706-5208.

You should rely only on information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus supplement or the accompanying prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

**Prospectus**

**VENTRUS BIOSCIENCES, INC.**


**$100,000,000 of**
**Common Stock,**
**Preferred Stock,**
**Warrants,**
**Debt Securities and/or**
**Units**

From time to time, we may offer up to $100,000,000 of any combination of the securities described in this base prospectus, either individually or in units, in one or more offerings in amounts, at prices and on the terms that we will determine at the time of offering. We may also offer common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants.

Each time we sell securities, we will provide specific terms of the securities offered in a supplement to this base prospectus. The prospectus supplement may also add, update or change information contained in this base prospectus. We will specify in any accompanying prospectus supplement the terms of any offering. You should read this base prospectus and the applicable prospectus supplement, as well as any documents incorporated by reference in this base prospectus and any prospectus supplement, carefully before you invest in any securities. **This base prospectus may not be used by us to consummate a sale of securities unless accompanied by the applicable prospectus supplement.**

We will sell these securities directly to our stockholders or to other purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our common stock trades on the NASDAQ Capital Market under the trading symbol “VTUS.” On February 8, 2012, the last reported sale price of our common stock was $9.25 per share. We recommend that you obtain current market quotations for our common stock prior to making an investment decision.

**You should carefully read this base prospectus, the prospectus supplement relating to any specific offering of securities and all information incorporated by reference herein and therein.**

**Investing in our securities involves a high degree of risk. These risks are discussed in this base prospectus under “Risk Factors” beginning on page 12 and in the documents incorporated by reference into this base prospectus.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this base prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this base prospectus is February 10, 2012.

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## ABOUT THIS BASE PROSPECTUS

This base prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may offer shares of our common stock and preferred stock, various series of debt securities and/or warrants to purchase any of such securities, either individually or in units, in one or more offerings, up to a total dollar amount of $100,000,000. This base prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this base prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering.

This base prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. Prospectus supplements may also add, update or change information contained or incorporated by reference in this base prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this base prospectus or offer a security that is not registered and described in this base prospectus at the time of its effectiveness. This base prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this base prospectus, includes all material information relating to this offering. You should carefully read this base prospectus, the applicable prospectus supplement, the information and documents incorporated herein by reference and the additional information under the heading "Where You Can Find More Information" before making an investment decision.

You should rely only on the information we have provided or incorporated by reference in this base prospectus or any prospectus supplement. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this base prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained or incorporated by reference in this base prospectus. You must not rely on any unauthorized information or representation. This base prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this base prospectus or any prospectus supplement is accurate only as of the date on the front of the document and that any information we have incorporated herein by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this base prospectus or any sale of a security.

To the extent there are inconsistencies between any prospectus supplement, this base prospectus and any documents incorporated by reference, the document with the most recent date will control.

**This base prospectus may not be used to consummate sales of our securities, unless it is accompanied by a prospectus supplement.**

Unless the context otherwise requires, "Ventrus," the "company," "we," "us," "our" and similar names refer to Ventrus Biosciences, Inc.

## BASE PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this base prospectus. Because it is a summary, it might not contain all of the information that is important to you. Accordingly, you are urged to carefully review this base prospectus in its entirety, including "Risk Factors" beginning on page 12 and our financial statements and related notes thereto incorporated by reference herein, before making an investment decision.*

### Overview

We are a development stage specialty pharmaceutical company currently focused on the development of late-stage prescription drugs for gastrointestinal disorders, specifically hemorrhoids, anal fissures and fecal incontinence. Major pharmaceutical progress has been made in the gastrointestinal therapeutic areas of gastroesophageal reflux, peptic ulcer disease and inflammatory bowel disease. However, many major gastrointestinal disorders still lack medical treatments. We are pursuing treatments for three of the 10 most prevalent gastrointestinal disorders in the U.S. We estimate that the patient population of these three disorders is almost 30.0 million people in the U.S., based on the data we cite for each indication in this report.

We are not aware of any prescription drug treatments for hemorrhoids or fecal incontinence that have been approved by the U.S. Food and Drug Administration, or FDA for these indications, yet there currently are approximately 21.7 million Americans suffering from symptomatic hemorrhoids in the past year, and approximately 7.0 million from fecal incontinence. While there are approximately 1.1 million office visits per year for anal fissures in the U.S., we are aware of only one drug that has received FDA approval for the treatment of pain associated with anal fissures; Rectiv received approval in late June 2011, and is expected to come to market in the first quarter of 2012. Rectiv is effective in reducing the pain from anal fissures, but moderate and severe headaches are a frequent side effect of this drug whose active ingredient is nitroglycerin. Our lead product VEN 309 (iferanserin) is a new chemical entity, or NCE, for the topical treatment of symptomatic internal hemorrhoids. In seven clinical studies between 1993 and 2003 involving 359 patients, VEN 309 demonstrated good tolerability and no severe adverse events, and statistically significant improvements in bleeding, itchiness and pain. Beginning in 2008, we have had extensive discussions with the FDA under a Special Protocol Assessment, or SPA, process, for our first pivotal U.S. trial of VEN 309 for the treatment of symptomatic internal hemorrhoids. While we decided not to pursue an agreement letter, we received many recommendations from the FDA concerning the major and important elements of the trial during this process and we incorporated these into our protocol. To avoid delays and without having reached agreement with FDA on the SPA, we proceeded to file the protocol to our existing investigational new drug application, or IND, with the FDA in July 2011 and began enrolling and dosing patients in August 2011. We own all rights, title and interest in VEN 309.

Our additional product candidate portfolio consists of two in-licensed late-stage drugs. VEN 307 (diltiazem) is intended to treat pain associated with anal fissures and VEN 308 (phenylephrine) is intended to treat fecal incontinence. These candidates are two molecules that were previously approved and are currently marketed for other indications and that have been formulated into our proprietary topical treatments for these new gastrointestinal indications.

Diltiazem was first approved in 1982 in oral form for the treatment of angina and high blood pressure. It has been prescribed in the U.S. for millions of patients in oral dosages typically from 240 mg to 360 mg per day. In contrast, daily doses of VEN 307 for treatment of anal fissures will range from 15 mg to 45 mg. Because of the extensive patient exposure to diltiazem as a cardiovascular agent and the wide safety margin as a low dose topical therapy, we intend to develop the topical formulation as a Section 505(b)(2) new drug application, or NDA, based on our discussions with the FDA at our pre-IND meeting in August 2007.

Phenylephrine has been available since the early 1940s in oral and nasal form for the treatment of nasal congestion. It has also been used as a topical ophthalmic agent since 1936. Phenylephrine is prescribed more than 17 million times per year in the U.S., with 99% of the prescriptions being for cough/cold oral preparations. The typical oral dosing is 40 mg to 60 mg per day. Because of the extensive patient exposure to phenylephrine, we intend to develop VEN 308 as a topical formulation through a Section 505(b)(2) NDA.

In August 2007, we had a pre-IND meeting with the FDA concerning VEN 307 for the treatment of pain from anal fissures where we discussed necessary preclinical testing and product formulation to support an IND established what clinical safety database would be required, and that the next clinical studies needed for approval were two pivotal Phase III trials, preceded (if conducted in the U.S.) by three short-term dermal toxicology studies using final drug product formulation. In June 2007, we had a pre-IND meeting with the FDA concerning VEN 308 for the treatment of fecal incontinence associated with ileal pouch anal anastomosis (IPAA) where it was established that the next clinical study in the program should be a Phase IIb trial where multiple doses will be assessed and that existing toxicology data are sufficient to support Phase II testing. We have not had further meetings with the FDA on either VEN 307 or VEN 308 since the meetings in 2007. Beginning in February 2009, the development of the three products, VEN 307, VEN 308 and VEN 309, was delayed due to a lack of financial resources prior to the completion of our initial public offering in December 2010. We have used and are using the proceeds from that offering, as well as the proceeds from our July 2011 registered public offering of our common stock, to continue the development of VEN 309 and VEN 307 and we are using a portion of the proceeds from the July 2011 offering to fund the two pivotal Phase III trials for VEN 309.

**Our Products and Development Strategy**

Our three late-stage product candidates are:

**Iferanserin ointment (VEN 309) for the topical treatment of symptomatic internal hemorrhoids.** Hemorrhoids, which are characterized by the inflammation and swelling of veins around the anus or lower rectum, can cause bleeding, itching, pain and difficulty defecating. VEN 309, an NCE formulated as an ointment for intra-anal application, has highly selective, antagonistic activity against peripheral $5HT_{2A}$ receptors involved in clotting and the contraction of arteries and veins, two events believed to be associated with hemorrhoid formation. By limiting $5HT_{2A}$ receptor activity, VEN 309 improves the flow of blood out of the dilated veins that comprise the hemorrhoid, thereby reducing bleeding, itchiness and pain. As reported a survey of 10,000 adult consumers in the U.S. conducted on our behalf by Princeton Brand Econometrics, symptomatic hemorrhoids have affected approximately 21.7 million people in the past year and approximately 6.7 million adults on any given day in the U.S. Despite such a high prevalence, we are not aware of any FDA-approved prescription drugs for the treatment of hemorrhoids. While there are commonly used prescription drugs in the U.S. for hemorrhoids, such as Anusol®, none have been approved by the FDA or have been designated by the FDA as safe and effective for this indication. Various combination products (such as the Preparation H line of products) are available in the U.S. over-the-counter, or OTC, under the FDA's OTC monograph rule. The great majority of these OTC treatments provide only temporary relief from the symptoms of hemorrhoids, but do not address the cause of hemorrhoids. The mechanism of action of these treatments is either generally anti-inflammatory, such as steroids, or acting as a protective coating on the hemorrhoid or acting as local anesthetics, in the case of most of the OTC products, or unknown, in the case of herbal remedies, and we are not aware of any clinical trials published in medical journals on the efficacy or safety of any topical or oral drug currently marketed in the U.S. for the treatment of hemorrhoids. We believe VEN 309 to be more effective than the currently available conventional hemorrhoid topical or oral drug therapies and more attractive than surgical procedures, which are the only currently validated treatment options.

We originally licensed VEN 309 from Sam Amer & Co., Inc., or Amer, who had developed VEN 309 through Phase II trials and up to readiness for Phase III trials in the U.S. and Europe. On November 14, 2011, we acquired all rights, title and interest to VEN 309 from Amer. VEN 309 is covered for composition of matter in patents that will expire in August 2015 in the U.S. and February 2018 elsewhere. If approved by the FDA, VEN 309 will receive five years of data exclusivity in the U.S. as an NCE under the Hatch-Waxman Act and 10 years from the date of approval in Europe. We filed a new concentration range patent in August 2010, which, if issued, would grant patent protection until 2030 and prevent substitutable generic competition.

Our initial Phase III trial for VEN 309 (ClinicalTrials.gov Identifier: NCT01355874) is a multicenter double-blind randomized placebo-controlled parallel treatment group trial, consisting of three arms with a double-blind portion and an open-label extension portion consisting of:

*Double blind part*

- Approximately 600 male or female patients aged 18 – 75 years (200 patients per arm) recruited at up to approximately 70 sites in the U.S., randomized 1:1:1 ratio to:
    - Arm 1: placebo ointment twice daily intra-anally for 14 days;

- Arm 2: iferanserin ointment twice daily for 14 days;
- Arm 3: iferanserin ointment twice daily for7 days followed by placebo ointment twice daily for 7 days;

- After 14 days treatment, patients will be followed up at Day 28;
- Inclusion criteria includes symptomatic grade I to III internal hemorrhoids, bleeding from hemorrhoids every day for the two days immediately preceding the day that they are randomized and study medication applied, with pain or itching accompanying the bleeding for the two days; and
- Exclusion criteria includes: grade IV hemorrhoids; thrombosed internal or external hemorrhoids;prior history of, or current, heart disease or depression; laxatives, anticoagulants, over-the-counter anti-hemorrhoidal agents, topical steroids, suppositories of any kind, non-steroidal anti-inflammatory drugs (NSAIDs), Cox-2 inhibitors, and other drugs and conditions including potential inhibitors of CYP2D6 such as SSRI drugs.

The endpoints for the double-blind part of the trial are:

- Primary: Proportion of patients with cessation of bleeding by Day 7 that persists for the remainder of the treatment period (through Day 14); and
- Key Secondary: Proportion of patients with cessation of pain and/or itching by Day 7 that persists for the remainder of the treatment period (through Day 14).

*Open Label part*

After the 28 day double blind portion of the trial, patients will be followed quarterly for one year and treated with active drug if they have a recurrence at any time during that period. We will assess time to first recurrence, and the overall recurrence rate over one year, and will be able to observe the unblinded response to treatment of recurrence during this part of the trial.

Although we did not obtain an SPA agreement with the FDA, we believe that our modeling of the endpoint definitions as proposed by the FDA using the German Phase IIb trial data, confirm a projected power of > 99% for the primary endpoint and > 95% for the key secondary endpoints for our proposed Phase III trial.

We filed the protocol to our existing IND with the FDA in July 2011 and began enrolling and dosing patients in August 2011, and estimate we will complete enrollment approximately in April 2012. We anticipate reporting the top line data from our ongoing U.S. Phase III trial of VEN 309 in hemorrhoids in June of 2012.

**Diltiazem cream (VEN 307), a topical treatment for the relief of pain associated with anal fissures.** Anal fissures are small tears or cuts in the skin that lines the anus. They can be extremely painful, cause bleeding and often require surgery, which itself can have unsatisfactory outcomes. In 2010, it was estimated by SDI Health LLC that there were approximately 1.1 million office visits per year for anal fissures. At present, we are aware of only one FDA-approved drug for the treatment of anal fissures. Rectiv (nitroglycerin) ointment 0.4%, for the treatment of moderate to severe pain associated with chronic anal fissures, received FDA approval in late June 2011, and is expected to come to market in the first quarter of 2012. Topical nitroglycerin, the active ingredient in Rectiv, also has been compounded by pharmacists to treat anal fissures, but has a substantially higher rate of side effects than topical diltiazem, notably moderate and severe headaches, which also are experienced with Rectiv. We also are aware of limited use of Botox as an injection into the anal sphincter to treat this condition. Several topical forms of nifedipine, a calcium-channel blocker, also are used to treat pain from anal fissures. Diltiazem cream, also a calcium-channel blocker, however, is currently used as the preferred treatment prior to surgery by many gastroenterologists across the U.S. in a version that must be specially mixed, or compounded, for each patient in the pharmacy. Compounded diltiazem is currently listed in the U.S. and E.U. anal fissure treatment guidelines as a preferred agent prior to attempting surgery. Neither compounded diltiazem nor nifedipine, however, is FDA-approved for the relief of pain associated with anal fissures nor is the cost typically reimbursed by Medicare or health insurance plans. We expect that VEN 307, if approved by FDA and Rectiv would be reimbursable under Medicare and health insurance plans. When applied topically for the treatment of anal fissures, diltiazem, which has been used for decades for hypertension and angina, dilates the blood vessels supplying the region, reduces anal sphincter tone, and thereby substantially decreases pain. In the majority of multiple clinical trials conducted against placebo or topical nitroglycerin conducted between 1999 and 2002 by various researchers in investigator initiated trials, diltiazem cream significantly reduced the pain associated with anal fissures.

Our product, VEN 307, is a pre-mixed and pre-packaged proprietary formulation of diltiazem that when applied topically yields lower blood levels (at one-tenth the amount) than the lowest oral dose used for cardiovascular treatment. We believe these low blood levels improve the safety profile and lower the risk of side effects. We have potential to capture immediate market share if VEN 307 is approved due to the familiarity of gastroenterologists with the current use of diltiazem to treat anal fissures, its ease of prescription as a pre-formulated FDA-approved product with no need for compounding necessary at the pharmacy, and the expected ability for patients to be reimbursed through their health insurance plans or Medicare. We have licensed the exclusive North American rights to VEN 307 for the topical treatment of anal fissures from S.L.A. Pharma, our development partner, who has completed early-stage clinical trials, toxicology studies and manufacturing for VEN 307 up to the end of Phase II. VEN 307 is covered by a method of use in a patent that will expire in February 2018.

In August 2007, we had a pre-IND meeting with the FDA concerning VEN 307 for the treatment of pain from anal fissures where we addressed necessary preclinical testing and product formulation to support an IND, established what clinical safety database would be required, and that the next clinical studies needed for approval were two pivotal Phase III trials, preceded (if conducted in the U.S.) by three short-term dermal toxicology studies using final drug product formulation. Prior to conducting any clinical Phase III trials in the U.S., we must complete three short-term dermal toxicology studies and file an IND for FDA approval. We plan to employ a two-pronged development strategy for VEN 307. While S.L.A. Pharma is conducting the first Phase III VEN 307 clinical trial in the E.U. which completed enrollment in December 20112 and is anticipated to be reporting data in May 2012, we intend to initiate development of a different formulation of VEN 307 with new intellectual property in the form of an extended release formulation. There are several proven methodologies for extended release topical formulations, and we believe that diltiazem is readily druggable in this regard. We intend to assess three to four alternatives preclinically with multiple contractors, and then assess absorption and effect on the internal anal sphincter (IAS) pressure with the most promising candidate, while we file Patent Cooperation Treaty applications for the specific technology combined with diltiazem for all formulations that are technically feasible.

S.L.A. Pharma began enrollment in the VEN 307 Phase III trial in November 2010 and completed enrollment of 465 patients at 32 sites in Europe in December 2011. Patients were treated for two months and then observed without treatment for one month in a randomized 1:1:1 double blind study that compares treatments of fiber plus 2% VEN 307 and fiber plus 4% VEN 307 to fiber plus placebo. The primary endpoint is reduction of pain upon defecation averaged across the fourth week of treatment, using a validated numerical rating scale for pain. Patients used daily diaries and were observed for one week prior to randomization to ensure sufficient pain prior to randomization. We expect initial top-line data from the VEN 307 EU Phase III study to be available in May 2012.

If there is successful completion of and satisfactory data from the E.U. trial, we will make the final decision on which formulation to pursue depending on several factors, including whether the new formulation is clinically superior, our access to capital, clinical and regulatory considerations, and our assessment of the then-current state of our intellectual property estate. If the new U.S. developed formulation is superior as demonstrated by sufficient data and the other factors are met, we plan to file an IND for the new formulation of VEN 307 and then initiate two pivotal trials in parallel in order to complete the NDA for an estimated FDA submission in 2014. If the new formulation is not superior, from the clinical. CMC and intellectual property perspectives, we plan to finish clinical development utilizing the current formulation which would require three short-term dermal toxicology studies and one additional pivotal Phase III trial in the U.S. We believe that continuing with the current formulation could result in an NDA submission in 2013 but would expect to continue to pursue other lifecycle options for VEN 307. We intend to use a portion of our current resources to continue the development of VEN 307.

**Phenylephrine gel (VEN 308) for the treatment of fecal incontinence associated with ileal pouch anal anastomosis, an FDA orphan indication.** Ileal pouch anal anastomosis, or IPAA, is a surgical procedure used as part of a colectomy, which is a surgical treatment for patients with ulcerative colitis. Fecal incontinence resulting from dysfunctional sphincter tone is a common consequence of this procedure. According to a U.S. community based epidemiology study (Nelson et al., JAMA, 1995), 2.2% of the U.S. population suffer from fecal incontinence, which we estimate to be approximately 7.0 million people, based on 2009 Census Bureau population estimates. Patients with IPAA, secondary to a total colectomy, tend to have a high incidence of fecal incontinence, up to 30%, according to a 1987 study conducted by Dr. John Pemberton and others at the Mayo Medical School. The surgery associated with IPAA can weaken sphincters and muscles necessary for continence and therefore can result in incontinence. About 30% of patients with ulcerative colitis, a form of inflammatory bowel disease which has a prevalence of 700,000 patients in the U.S. (according to Datamonitor 2008) will have had a colectomy, almost always an IPAA procedure (according to McGlauchlin and Clark, Practical Gastroenterology, 8/2008). IPAA-related fecal incontinence is considered an orphan indication by the FDA and the European Medicines Agency, or EMEA. In 2006, the total population of patients with IPAA-related fecal incontinence in the U.S. was estimated to be 50,000 to 100,000, according to IMS Health, Inc. Currently, there are few options available to treat this problem, consisting of OTC bulk laxatives, fiber diets, Imodium, which is a treatment for diarrhea, and invasive surgical procedures. In addition, Solesta, an injectable inert bulking agent product, was approved as a device by the FDA in May 2011 for the treatment of fecal incontinence in adult patients who have failed conservative therapy. Solesta is injected submucosally around the anal sphincter and consequently has to be administered in an outpatient setting by qualified physicians. In addition, Norgine is conducting a European Phase II program with NRL001, a suppository formulation of an alpha adrenergic stimulating agent for the treatment of fecal incontinence. We are not aware of any FDA-approved drugs for fecal incontinence. In multiple investigator initiated clinical trials with patients suffering from IPAA-associated fecal incontinence, topical phenylephrine significantly (and in some patients, dramatically) improved patient bowel control. In clinical trials with other forms of incontinence, improvements were also observed following application of topical phenylephrine, depending on the cause of the incontinence.

Our product, VEN 308, is a gel formulation of phenylephrine. Applied topically, VEN 308 increases anal sphincter tone, thereby improving fecal incontinence in patients where sphincter tone is the major cause of their symptoms, such as post-IPAA surgery. We believe VEN 308 has significant advantages over the limited treatment options currently available for fecal incontinence associated with IPAA, including but not limited to, increased efficacy and/or reduced invasiveness. We have licensed the exclusive North American rights to VEN 308 from S.L.A. Pharma who developed the specific formulation of phenylephrine for the topical use in fecal incontinence and developed the manufacturing method. S.L.A. Pharma's previous partner, Solvay, conducted important pharmacokinetic studies. We currently do not expect to spend any time or resources developing VEN 308 in the short term. VEN 308 is covered by a patent that will expire in December 2017. If approved by the FDA, VEN 308 will receive seven years of data exclusivity in the U.S. under the Orphan Drug Act.

The FDA has granted VEN 308 orphan status for the treatment of IPAA-related fecal incontinence. In the U.S., orphan drug designation is given to a drug intended to treat a rare disease of condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the U.S. Assuming sufficient resources in the future and positive results from a Phase IIb dose ranging trial in the U.S. in support of the orphan indication of IPAA-related fecal incontinence that we intend to undertake, we would expect to submit an orphan NDA for VEN 308 for this indication. Orphan status provides seven years of data exclusivity in the U.S. from the date of approval for a specific indication.

*Our Development Efforts*

We own VEN 309 (but prior to November 14, 2011, in-licensed it from Amer) and in-license our two other product candidates from S.L.A Pharma. All clinical trials to date have been conducted either by the licensor, the licensor's previous partners or by independent investigators, as have the preclinical studies and product formulation activities. Since the time we licensed these products, we have focused our efforts on establishing and clarifying the regulatory pathway for late phase clinical trials and regulatory approval, on establishing the contract manufacturing capacity and methods necessary to allow late phase clinical trials to proceed, and on initiating late phase trials, preclinical toxicology and human pharmacology studies with our products, all of which will be conducted by contracted third parties under our direction. These development efforts have not required many employees and we have historically operated with only a limited number of employees with the expertise necessary to progress our product candidates down the development path outlined above. This helps us contain our operating costs.

Subsequent to the completion of our initial public offering in late December 2010, we began hiring a few employees and contracting with three individuals or entities to complete our staffing needs for our initial Phase III trial of VEN 309. Throughout 2011, we added several other employees. We also have contracted with contract research organizations to assist us in our Phase III trials for VEN 309. However, we remain dependent on the availability and competency of the third parties with whom we have contracted and with whom we plan to contract for the continued development of our product candidates.

*Our Strategy*

Our objective is to develop and commercialize our product candidates to treat hemorrhoids, anal fissures and fecal incontinence. Currently, there are no FDA-approved prescription drugs in the U.S. for the treatment of hemorrhoids. One product (Rectiv, a topical nitroglycerin) was approved by the FDA in June 2011 and we expect this product to be launched by Aptalis in 2012. There are no FDA-approved prescription drugs for the treatment of incontinence, but Solesta, a hyaluronic acid dermal filler, was approved as a device by the FDA in 2011 for intra-anal injection for fecal incontinence. We expect Salix Pharmaceuticals to launch this product in 2012.

To achieve this objective, we intend to:

- complete one of two planned pivotal Phase III trials in the U.S. of VEN 309 for the treatment of hemorrhoids, that began in August 2011 and for which enrollment is expected to be complete around April 2012 and for which top line results are expected around June 2012;

- assuming positive data from the initial Phase III trial for VEN 309, conduct an additional pivotal Phase III trial as well as a Phase III double blind recurrence trial. Assuming acceptable results from these clinical trials, as well as from clinical pharmacology and other, non-clinical, activities, such as carcinogenicity and toxicology studies, prepare and file an NDA for VEN 309 for the treatment of hemorrhoids in 2014;

- assuming VEN 309 is approved by the FDA, and because there are no FDA-approved prescription drug competitors in the U.S., we intend to commercialize the product in the U.S. using either our own sales force or through an agreement with a suitable partner and to license the product for sale outside of the U.S.;

- assuming receipt of positive data from an ongoing European Phase III trial of VEN 307, expected in May 2012, conduct one pivotal trial with the existing three times per day formulation or two parallel pivotal trials with a to-be-identified twice daily formulation as well as short-term dermal toxicology studies for VEN 307, with the goal to prepare and file an NDA for a Phase III trial of VEN 307 for the topical treatment of pain associated with anal fissures in 2013;

- assuming VEN 307 is approved by the FDA, and because topical diltiazem is already used by colorectal surgeons in the U.S., we intend to engage our own gastrointestinal specialty sales force and marketing staff to commercialize this product and/or engage a suitable partner in the U.S. and to license it for sale in Canada; and

- pending the outcome of the ongoing Phase III trials in VEN 309 and VEN 307, and the availability of additional capital, develop a final formulation of VEN 308 and advance that product through Phase IIB studies.

History of Operations

We hired Dr. Russell Ellison, our Chief Executive Officer and Chief Medical Officer, and David Barrett, our Chief Financial Officer, in December 2010 upon the completion of our initial public offering. From June 2010 until they were hired, Dr. Ellison and Mr. Barrett served as consultants because our only business activities during that time consisted of maintaining our licenses with S.L.A. Pharma and Amer, and activities connected with our initial public offering. From late December 2010 through February 2011, we completed the staffing for our planned development of VEN 309, by adding a clinician, two clinical project managers, a head of manufacturing, and an executive assistant on a contract or permanent employment basis. We have used these consultancy arrangements to conserve our resources.

Although incorporated in 2005, we began active operations in the spring of 2007 upon the licensing of VEN 307 and VEN 308 by Paramount BioSciences from S.L.A. Pharma. Shortly thereafter, we hired Thomas Rowland as our chief executive officer (who was then one of our directors), Dr. Terrance Coyne as our chief medical officer, and Dr. John Dietrich as our vice president of clinical operations, as well as other employees. Due to our lack of capital, Drs. Coyne and Dietrich resigned in February 2009. Mr. Rowland resigned as our chief executive officer in February 2009, but he continued to act as our president from the date of his resignation in February 2009 until May 2010. Simultaneously with the resignation of Dr. Dietrich, we entered into a consulting agreement with him whereby he provided consultation on manufacturing, preclinical and clinical aspects of our drug programs on an as-needed basis. These arrangements with Mr. Rowland and Dr. Dietrich allowed us to continue minimal operations following their resignations until June 2010 when we contracted with Dr. Ellison and Mr. Barrett. In January 2011, we renewed the consulting agreement with Dr. Dietrich. Effective September 1, 2011, we hired Mr. Rowland as our Chief Business Officer.

**Our Management**

Our management team consists of: Russell H. Ellison, Chief Executive Officer and Chairman of the Board of Directors, who has over 30 years of experience in the pharmaceutical industry, including serving as vice president — medical affairs and Chief Medical Officer of Roche Laboratories, Inc., USA. and of Sanofi-Synthelabo, USA; David J. Barrett, Chief Financial Officer, previously chief financial officer of Neuro-Hitech, Inc., a publicly traded pharmaceutical company with development stage and marketed products; and Thomas Rowland, Chief Business Officer, who was hired effective September 1, 2011, has over 20 years of experience in the pharmaceutical industry, most of which was in the gastrointestinal area, and was our founding chief executive officer. Beginning in January 2011, we have increased the number of our employees to seven and have long-term contracts with seven consultants on manufacturing, preclinical and clinical aspects of our drug programs. We also have contracted with three contract research organizations to assist in our drug development plans. We use these consulting agreements to avoid the costs customarily associated with employees until our financial resources allow us to hire additional employees. We believe that the addition of these employees and consultants to the Ventrus team will help us advance our product candidates to the next stage of development.

**Recent Developments**

We had filed an SPA in June 2008 with the FDA to ensure its explicit agreement with our first pivotal Phase III protocol for VEN 309, using the 0.5% concentration. As part of that process, we had extensive discussions with FDA about the protocol and filed a revised protocol on May 16, 2011. In late June 2011, the FDA issued its response and requested that additional information be included in the protocol pertaining to some details of the study, and therefore did not issue an agreement letter for the SPA. The FDA's recommendations included adding a standardized methodology to the protocol to assess patients' comprehension of symptoms and symptom terms, such as "anus" or "anal-rectal area"; addressing the possibility that women in menses may not be able to determine whether the source of their bleeding is from hemorrhoids; and adding more clarity to the protocol regarding maintenance of blinding while preserving accurate dosing in the seven-day treatment arm. In addition, the FDA recommended adding a stratification to the efficacy analysis, a rewording for better clarity of the endpoint definition , and clarifications to the description of the formal statistical hypothesis and calculation of the sample size for the primary endpoint. None of these recommendations affected the previous recommendations of the FDA for the endpoints, overall statistical powering and subject number, and the overall clinical design. We incorporated these latest changes into the protocol and, in order to maintain our timelines for the trial, we filed the protocol to our existing IND with the FDA, and did not continue to pursue the SPA process. We began enrollment and dosing in the first Phase III trial in August 2011.

On July 19, 2011, we sold 5,175,000 shares of common stock in a public offering at a price to the public of $10.00 per share for gross proceeds of $51.75 million. The shares include 675,000 shares of common stock sold pursuant to the over-allotment option granted by us to the underwriters, which option was exercised in full. We received approximately $47.5 million in net proceeds from the offering, after deducting underwriting and financial advisory fees and estimated offering expenses.

On June 6, 2011, we amended our license agreement with S.L.A. Pharma. The amendment eliminated our potential $800,000 payment to S.L.A. Pharma for the development of VEN 307, previously payable upon the completion of enrollment into the Phase III clinical trial that S.L.A. Pharma is conducting in Europe. It also eliminated S.L.A. Pharma's ability to terminate the license agreement at any time, with one month's notice, in the event that we had failed to make a required payment and a third party wished to enter into a license agreement for VEN 307 and VEN 308, provided the termination would not have been effective if within that one-month period we paid all then required payments under the agreement. Pursuant to the amendment, we were obligated to pay S.L.A. Pharma up to $1,000,000 in milestone payments, payable in four equal installments of $250,000 once specified thresholds of randomized patients are achieved in the Phase III trial for VEN 307 that S.L.A. Pharma is conducting in Europe. The enrollment for this trial was completed in December 2011, somewhat ahead of schedule, and these payments have all been made. Additionally, as part of the amended agreement, upon our receipt of a quality controlled final study report of the Phase III trial for VEN 307 in Europe, we must pay S.L.A. Pharma $400,000 in development costs for VEN 307.

On June 5, 2011, we entered into an agreement with Amer to acquire all rights, title and interest to VEN 309. We paid $500,000 on execution and paid $12 million for the asset at closing on November 14, 2011. Closing was subject to our raising net proceeds of a certain minimum amount, as well as customary closing conditions. Closing was also subject to, in respect of the first pivotal Phase III trial and any recurrence treatment for VEN 309, the absence through November 10, 2011 of any serious severe adverse events that were life threatening with a risk of serious morbidity that had occurred in one or more subjects receiving VEN 309 which were either determined to be at least probably caused by VEN 309 or had been disclosed by us in a public securities filing. We will pay Amer royalties of between 3.0% and 4.0% on net annual sales in the U.S. and between 1.0% and 1.33% on gross annual sales outside the U.S. (subject to a minimum royalty payment on both U.S. and ex-U.S. sales), which, in addition to an approximately 50% reduction in milestone payments under the current license agreement, represents an approximately 66% decrease in the royalty fees due to Amer under the former license agreement.

On November 1, 2011, the U.S. Patent and Trademark Office, or PTO, issued U.S. Patent No. 8,048,875 with claims directed to the use of VEN 307 as a topical treatment for the relief of pain associated with anal fissures. The U.S. patent expires in February 2018. A continuation application was filed on July 8, 2011 claiming priority to U.S. Patent No. 8,048,875 with claims directed to additional uses of VEN 307 for related indications. If the continuation application is issued as a patent, it will also expire in February 2018. If approved by the FDA, VEN 307 will receive three years of data exclusivity in the U.S. under the Hatch-Waxman Act.

In 2011, we commissioned Princeton Brand Econometrics, or PBE, to conduct a landmark omnibus survey of hemorrhoid consumers and patients. From these data, PBE developed a predictive model to forecast physician and patient behavior in response to various product profiles and promotional levels. Results from the market research show that the hemorrhoid market is potentially large, patients are seeking solutions, and respond strongly to the VEN 309 product concept. Of the 10,202 adult consumers surveyed, 1,125 patients reported having hemorrhoids within the last two years, which represents approximately 11% of the U.S. adult population (25.8 million of 234 million people). In addition to the 11% two year prevalence, 9%, 6% and 3% reported having hemorrhoids within the past one year (21.7 million people), one month (14 million people) and on the day of survey (6.7 million people) respectively. Of the entire group of hemorrhoid patients surveyed, 85% reported having had treatment at some point; from the treatment subset, 86% reported using OTC and 14% using prescription products as their last treatment. 10% of all hemorrhoid patients surveyed had had an invasive procedure (banding, injection, surgery) at some time, of which 61% had surgery, and 75% of patients who had had an invasive procedure reported a recurrence. When exposed to the VEN 309 product concept, 88% of those surveyed who had hemorrhoidal symptoms on the day of survey stated they would request a prescription on their next office visit (using factoring by PBE this estimates that 80% probably would request a prescription). Of the entire sample of consumers who had had hemorrhoids at any time in the past two years, 66% would fill a prescription at a thirty-five dollar out of pocket co-pay; of those earning more than $50,000 per year, 78% would fill a prescription at a $35 out of pocket co-pay.

Seven hundred and ninety-five health care providers, or HCPs, were also surveyed. Based on these data and prescriber–level data from Wolters Kluwer, PBE estimates that 170,000 HCPs directly generate 4 mm prescriptions for intra-anal/intra-rectal steroids and 2 mm recommendations for OTC products; approximately 21,000 HCPs account for 50% of this activity. When exposed to the VEN 309 product concept and a range of patient co-pay scenarios, HCPs showed a high willingness to prescribe and a minimal co-pay sensitivity; the probability that they would write a prescription in response to a patient request ranged from .88 to .92 (factored by PBE).

**Corporate History and Information**

We were incorporated in Delaware in October 2005 under the name South Island Biosciences, Inc. and changed our name to Ventrus Biosciences, Inc. in April 2007. We began operations in April 2007 upon the acquisition of the licenses to VEN 307 and VEN 308 and the hiring of a development team. We acquired the license to VEN 309 in March 2008. We acquired the licenses to VEN 307, VEN 308 and VEN 309 from Paramount Bioscience, LLC and also borrowed funds from Paramount and one or more of its affiliates. Our largest stockholder, Dr. Lindsay Rosenwald, is the Chairman, Chief Executive Officer and sole stockholder of Paramount. We conducted operations until March 2009 when we terminated our employees due to a lack of financial resources. We retained the services of our then executive team through consulting agreements, pursuant to which those individuals, from February 2009 to June 2010, conducted minimal activities consisting of maintaining the licenses to our product candidates and business development and financing activities. We completed a series of convertible note financings in February, April and May of 2010 that provided us funds to hire as consultants our current chief executive officer and chief financial officer and undertake our initial public offering. The completion of our initial public offering in December 2010 and the related exercise of the underwriters' over-allotment option in January 2011 raised approximately $17.5 million in net proceeds. In July 2011, we raised approximately $47.5 million in net proceeds in a registered public offering. We have used a portion of those net proceeds to resume the development of VEN 309 and VEN 307, including hiring employees, contracting with consultants, contracting with contract research organizations to assist us in executing and monitoring our Phase III trials for VEN 309 for the treatment of internal hemorrhoids, and contracting with manufacturers of clinical trial supplies for those studies.

Our executive offices are located at 99 Hudson Street, 5th Floor, New York, New York 10013. Our telephone number is (646) 706-5208. Our website address is *www.ventrusbio.com*. Information contained in, or accessible through, our website does not constitute part of this base prospectus.

**Offerings Under This Base Prospectus**

We may offer shares of our common stock and preferred stock, various series of debt securities and/or warrants to purchase any of such securities, either individually or in units, with a total value of up to $100,000,000 from time to time under this base prospectus at prices and on terms to be determined by market conditions at the time of any offering. This base prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this base prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities.

The base prospectus supplement also may add, update or change information contained in this base prospectus or in documents we have incorporated by reference into this base prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this base prospectus or offer a security that is not registered and described in this base prospectus at the time of its effectiveness.

**This base prospectus may not be used to consummate a sale of any securities unless it is accompanied by a prospectus supplement.**

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we offer securities through agents or underwriters, we will include in the applicable prospectus supplement:

- the names of those agents or underwriters;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

*Common Stock*

We may issue shares of our common stock from time to time. The holders of common stock are entitled to one vote per share on all matters to be voted upon by stockholders. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of any preferred stock then outstanding.

*Preferred Stock*

We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences, privileges and restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by stockholders. Convertible preferred stock will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at your option or both and would be at prescribed conversion rates.

If we sell any series of preferred stock under this base prospectus and applicable prospectus supplements, we will fix the rights, preferences, privileges and restrictions of the preferred stock of such series in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this base prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. We urge you to read the applicable prospectus supplement related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

*Warrants*

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into warrant agreements with a bank or trust company that we select to be our warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

In this base prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the applicable prospectus supplement related to the particular series of warrants being offered, as well as the warrant agreements and warrant certificates that contain the terms of the warrants. We will file as exhibits to the registration statement of which this base prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement or warrant certificate containing the terms of the warrants we are offering before the issuance of the warrants.

*Debt Securities*

We may offer debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our common stock or our other securities. Conversion may be mandatory or at your option or both and would be at prescribed conversion rates.

With respect to any debt securities that we issue, we will issue such debt securities under an indenture, which we would enter into with the trustee named in the indenture. Any indenture would be qualified under the Trust Indenture Act of 1939.

*Units*

We may issue units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. In this base prospectus, we have summarized certain general features of the units. We urge you, however, to read the applicable prospectus supplement related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this base prospectus is a part, or will incorporate by reference reports that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

## RISK FACTORS

*Investing in our securities involves risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our company. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed below and under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this base prospectus. You should also consider the risks, uncertainties and assumptions discussed under the heading "Risk Factors" included in our most recent annual report on Form 10-K, as revised or supplemented by our most recent quarterly report on Form 10-Q, each of which are on file with the SEC and are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future.*

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

**We have a limited operating history and a history of operating losses, and expect to incur significant additional operating losses.**

We were established in October 2005, began active operations in the spring of 2007 and have only a limited operating history. Therefore, there is limited historical financial information upon which to base an evaluation of our performance. Our prospects must be considered in light of the uncertainties, risks, expenses, and difficulties frequently encountered by companies in their early stages of operations. We have generated losses since we began operations and, as of September 30, 2011, we had a deficit accumulated during the development stage of $48.7 million. We expect to incur substantial additional losses over the next several years as our research, development, pre-clinical testing, and clinical trial activities increase. The amount of future losses and when, if ever, we will achieve profitability are uncertain. We have no products that have generated any commercial revenue, do not expect to generate revenues from the commercial sale of products unless and until our product candidates are approved by the FDA for sale, and might never generate revenues from the sale of products.

**We are not currently profitable and might never become profitable.**

We have a history of losses and expect to incur substantial losses and negative operating cash flow for the foreseeable future, and we might never achieve or maintain profitability. Even if we succeed in developing and commercializing one or more product candidates, we expect to incur substantial losses for the foreseeable future. We also expect to continue to experience negative cash flow and to incur significant operating and capital expenditure for the foreseeable future. We anticipate that our expenses will increase substantially in the foreseeable future as we:

- continue to undertake preclinical development and clinical trials for product candidates;
- seek regulatory approvals for product candidates;
- implement additional internal systems and infrastructure; and
- hire additional personnel.

As a result, we will need to generate significant revenues in order to achieve and maintain profitability. Our ability to generate revenue and achieve profitability will depend on, among other things:

- successful completion of animal tests, which are referred to as pre-clinical studies, as well as human tests, which are referred to as clinical trials, for our product candidates;
- obtaining necessary regulatory approvals from the FDA and international regulatory agencies;
- establishing manufacturing, sales, and marketing arrangements with third parties; and

- raising sufficient funds to finance our activities.

We might not succeed at any of these undertakings. If we are unsuccessful at some or all of these undertakings, our business, prospects, and results of operations might be materially adversely affected.

**We have no approved products.**

To date, we have no approved product on the market and have generated no product revenues. Unless and until we receive approval from the FDA and other regulatory authorities for our product candidates, we cannot sell our drugs and will not have product revenues. Therefore, for the foreseeable future, we will have to fund all of our operations and capital expenditures from cash on hand, any licensing fees and any future securities offerings or debt financings. We intend to devote substantially all of our resources to the development of VEN 309 and VEN 307. In the event we do not obtain regulatory approval of either of these product candidates, our business will be materially and adversely affected.

**We are a development-stage company and might not be able to commercialize any product candidates.**

We are a development-stage company and have not demonstrated our ability to perform the functions necessary for the successful commercialization of any product candidates. The successful commercialization of any product candidates will require us to perform a variety of functions, including:

- continuing to undertake preclinical development and clinical trials;
- participating in regulatory approval processes;
- formulating and manufacturing products; and
- conducting sales, marketing and distribution activities.

Our development of current and future product candidates is subject to the risks of failure and delay inherent in the development of new pharmaceutical products and products based on new technologies, including:

- delays in product development, clinical testing, or manufacturing;
- unplanned expenditures in product development, clinical testing, or manufacturing;
- failure of a product candidate to demonstrate acceptable safety and efficacy;
- failure to receive regulatory approvals;
- emergence of superior or equivalent products;
- inability to manufacture and sell on our own, or through any others, product candidates on a commercial scale or at a financially viable cost; and
- failure to achieve market acceptance.

Because of these risks, our research and development efforts might not result in any commercially viable products. If we do not successfully complete a significant portion of these development efforts, obtain required regulatory approvals, and have commercial success with any approved products, our business, financial condition and results of operations will be materially harmed.

**We will need additional financing to fund our activities in the future and complete the development of our product candidates.**

We anticipate that we will incur operating losses for the foreseeable future. We expect that our current resources will provide us with sufficient capital to fund our operations for more than 12 months and to develop VEN 309 through two pivotal Phase III trials. However, we might consume our available capital before that time if, for example, we are not efficient in developing our product candidates and conducting clinical trials or if regulatory requirements change.

Moreover, we believe we will require substantial funds in the future to support our operations. We anticipate that to complete the clinical trial process to obtain the approval of our product candidates will cost approximately $20 million for VEN 307, $15 million for VEN 308 and $40 million for VEN 309. We might seek equity or debt financings in the future to fund our operations. However, there is no assurance that we will be successful in raising the additional capital we need to fund our business plan on terms that are acceptable to us, or at all. If we do not succeed in raising additional funds on acceptable terms, we might be unable to initiate or complete clinical trials or obtain approval of any product candidate from the FDA and other regulatory authorities. In addition, we could be forced to discontinue product development, forego sales and marketing efforts, sacrifice attractive business opportunities, cease operations entirely and sell or otherwise transfer all or substantially all of our remaining assets.

**We are dependent on a license relationship for VEN 307 and VEN 308.**

We have acquired, by license from S.L.A. Pharma, the rights to VEN 307 and VEN 308, which are critical to our business, and we might enter into additional licenses in the future. The license with S.L.A. Pharma contains, and we expect that any future licenses will contain, provisions requiring up-front, milestone, and royalty payments to the licensor. If we fail to comply with these obligations to a licensor, that licensor might have the right to terminate the license on relatively short notice, in which event we would not be able to commercialize drug candidates or technologies that were covered by the license. Also, the milestone and other payments associated with licenses will make it less profitable for us to develop our drug candidates than if we owned the technology ourselves.

**We did not continue to pursue a Special Protocol Assessment, or SPA, for VEN 309 and the FDA may not find the pivotal trials we conduct for VEN 309 to be sufficient to support approval.**

In order not to delay the start of our Phase III trial for VEN 309 for the treatment of internal hemorrhoids, we chose not to reach agreement with FDA on a SPA and proceeded instead with the trial without an agreement letter on the SPA from the FDA. As a result, none of the recommendations made by the FDA on the major and important elements of the protocol to date and that we have implemented are binding on the FDA, which could result in delays in or failure to obtain approval of the NDA we plan to file for VEN 309. Further, in addition to our two pivotal Phase III trials for VEN 309, the FDA will also require that we complete various additional clinical trials and non-clinical testing, such as a Phase III recurrence trial and carcinogenicity and toxicology testing, and our discussions with the FDA from 2008 to date do not cover the detailed design or conduct of these additional trials and testing. As a result, we cannot assure that the pivotal trials and other studies we conduct will be sufficient to support approval of any NDA we file with respect to VEN 309.

**The results of our Phase III trial for VEN 309 might not be as expected, which expectations are based on our post hoc analysis of an earlier study.**

We have modeled the potential performance of the endpoints suggested by the FDA for our Phase III trial for VEN 309 using data from a prior double-blind Phase IIb trial of VEN 309 conducted in Germany that was very similar in all major respects to the Phase III trial we began conducting in August 2011. While we believe this post hoc analysis provided illustrative information, there are some differences related to patient inclusion/exclusion criteria and clinical endpoints and there could be unknown differences related to physician characteristics and study conduct between the studies that could possibly result in different outcomes. Accordingly, the successful results in the prior study might not be an indicator of success in our Phase III trials.

**We have had negative cash flows from operations and might not be able to generate sufficient cash to meet our substantial obligations to S.L.A. Pharma, which could result in the termination of our license or put substantial burdens on our financial position.**

We license two of our product candidates, VEN 307 and VEN 308, from S.L.A. Pharma, a Swiss corporation, and have obligations related to VEN 308 and to fund S.L.A. Pharma's development efforts for VEN 307 in the E.U., all of which are set forth in the chart below.

| Amount Due | Date Due | Fee Description |
|---|---|---|
| $41,500/monthly | Monthly beginning October 1, 2010, and continuing until S.L.A. Pharma is no longer managing the development program for VEN 307. | Project management fees for VEN 307. |
| $400,000 | Upon receipt of a quality controlled final study report of the Phase III trial for VEN 307 in Europe | Development expense for VEN 307 |

Our ability to make the payments required under the S.L.A. Pharma license agreement depends on our ability to generate cash in the future. We expect to experience negative cash flow for the foreseeable future as we fund our operating losses and capital expenditures. In the event that we are not current in our payments under the license agreement, S.L.A. Pharma may terminate the license agreement if we have not brought the payments current within three business days of receipt of notice from S.L.A. Pharma. Further, if we commercialize a product candidate, we must pay S.L.A. Pharma annual royalties ranging from the mid to upper single digit percentages, based upon net sales of the product. We also are required to make future milestone payments totaling up to $20 million upon the achievement of various milestones related to regulatory events for both VEN 307 and VEN 308, the earliest of which is not anticipated until 2015. In the event we breach these obligations, we could lose our rights to VEN 307 or VEN 308, or both, depending on the breach, which would have a material adverse effect on our business and prospects.

**We have identified material weaknesses in our financial reporting process.**

We have identified material weaknesses in our financial reporting process with respect to lack of accounting expertise, segregation of duties and lack of independent review over financial reporting. We and our auditors have also identified numerous errors in the accounting for routine transactions and non-routine, complex transactions, including with respect to the valuation of common stock and derivative securities, the recording of debt discount and related amortization for warrants issued in connection with debt financings and calculation of deferred tax assets. The material weaknesses identified with respect to lack of accounting expertise and segregation of duties relate to the policies and procedures that:

- ensure that information required to be disclosed is properly gathered and reported;
- pertain to the maintenance of records that accurately and fairly reflect our transactions and dispositions of our assets;
- provide reasonable assurance that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

We have taken the following measures to address the material weaknesses identified by us and our auditors and improve our periodic financial statement reporting process:

- hired a Chief Financial Officer in December 2010 (who previously was serving as a consultant) to strengthen our internal staffing and technical expertise in financial accounting and reporting;
- upgraded our accounting software system in the first quarter of 2011;

- limited access to the accounting and information systems and related data to strengthen segregation of duties;

- implemented in the fourth quarter of 2010 procedures and controls in the financial statement close process to improve the accuracy and timeliness of the preparation of quarterly and annual financial statements; and

- hired a controller in April 2011.

There can be no assurance that we will be able to successfully implement our plans to remediate the material weaknesses in our financial reporting process. Our failure to successfully implement our plans to remediate these material weaknesses could cause us to fail to meet our reporting obligations, to produce timely and reliable financial information, and to effectively prevent fraud. Additionally, such failure could cause investors to lose confidence in our reported financial information, which could have a negative impact on our financial condition and stock price.

**Corporate and academic collaborators might take actions to delay, prevent, or undermine the success of our products.**

Our operating and financial strategy for the development, clinical testing, manufacture, and commercialization of drug candidates heavily depends on collaborating with corporations, academic institutions, licensors, licensees, and other parties. However, there can be no assurance that we will successfully establish these collaborations. In addition, should a collaboration be terminated, replacement collaborators might not be available on attractive terms, or at all. The activities of any collaborator will not be within our control and might not be within our power to influence. There can be no assurance that any collaborator will perform its obligations to our satisfaction or at all, that we will derive any revenue or profits from these collaborations, or that any collaborator will not compete with us. If any collaboration is not successful, we might require substantially greater capital to undertake development and marketing of our proposed products and might not be able to develop and market these products effectively, if at all. In addition, a lack of development and marketing collaborations might lead to significant delays in introducing proposed products into certain markets and/or reduced sales of proposed products in such markets.

**We rely on data provided by our collaborators and others that has not been independently verified and could prove to be false, misleading, or incomplete.**

We rely on third-party vendors, scientists, and collaborators to provide us with significant data and other information related to our projects, clinical trials, and our business. If these third parties provide inaccurate, misleading, or incomplete data, our business, prospects, and results of operations could be materially adversely affected.

**We rely exclusively on third parties to formulate and manufacture our product candidates.**

While we have contracted with a highly experienced head of manufacturing to oversee the manufacture of our clinical trial supplies, we do not have and do not intend to establish our own manufacturing facilities. Consequently, we lack the physical plant to formulate and manufacture our own product candidates, which are currently being manufactured entirely by commercial third parties, albeit under close supervision by our contractors. If any product candidate we might develop or acquire in the future receives FDA approval, we will rely on one or more third-party contractors to manufacture our products. If, for any reason, we become unable to rely on our current source or any future source to manufacture our product candidates, either for clinical trials or, at some future date, for commercial quantities, then we would need to identify and contract with additional or replacement third-party manufacturers to manufacture compounds for preclinical, clinical and commercial purposes. We might not be successful in identifying additional or replacement third-party manufacturers, or in negotiating acceptable terms with any that we do identify. If we are unable to secure and maintain third-party manufacturing capacity, the development and sales of our products and our financial performance might be materially affected.

In addition, before any of our collaborators can begin to commercially manufacture our product candidates, each must obtain regulatory approval of the manufacturing facility and process. Manufacturing of drugs for clinical and commercial purposes must comply with the FDA's Current Good Manufacturing Practices, or cGMPs, and applicable non-U.S. regulatory requirements. The cGMP requirements govern quality control and documentation policies and procedures. Complying with cGMP and non-U.S. regulatory requirements will require that we expend time, money, and effort in production, recordkeeping, and quality control to assure that the product meets applicable specifications and other requirements. Our contracted manufacturing facilities must also pass a pre-approval inspection prior to FDA approval. Failure to pass a pre-approval inspection might significantly delay FDA approval of our products. If any of our collaborators fails to comply with these requirements, it would be subject to possible regulatory action which could limit the jurisdictions in which we are permitted to sell our products. As a result, our business, financial condition, and results of operations might be materially harmed.

Our reliance on a limited number of third-party manufacturers exposes us to the following risks:

- We might be unable to identify manufacturers for commercial supply on acceptable terms or at all because the number of potential manufacturers is limited and the FDA must approve any replacement contractor. This approval would generally require compliance inspections. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our products after receipt of FDA approval, if any.

- Our third-party manufacturers might be unable to formulate and manufacture our drugs in the volume and of the quality required to meet our clinical and commercial needs, if any.

- Our contract manufacturers might not perform as agreed or might not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products.

- Currently, our contract manufacturers are all foreign, which increases the risk of shipping delays and adds the risk of import restrictions.

- Drug manufacturers are subject to ongoing periodic unannounced inspection by the FDA and corresponding state agencies to ensure strict compliance with cGMP and other government regulations and corresponding foreign standards. We do not have complete control over third-party manufacturers' compliance with these regulations and standards although we have agents in plant that monitor the production process.

- If any third-party manufacturer makes improvements in the manufacturing process for our products, we might not own, or might have to share, the intellectual property rights to the innovation with our licensors.

- We might compete with other companies for access to these manufacturers' facilities and might be subject to manufacturing delays if the manufacturers give other clients higher priority than us.

Each of these risks could delay our clinical trials or the approval, if any, of our product candidates by the FDA or the commercialization of our product candidates and could result in higher costs or deprive us of potential product revenues. As a result, our business, financial condition, and results of operations might be materially harmed.

**Preclinical and clinical trials required for our product candidates are expensive and time-consuming, and their outcome is uncertain.**

In order to obtain FDA approval to market a new drug product, we must demonstrate safety and effectiveness in humans. To meet these requirements, we must conduct extensive preclinical testing and sufficient adequate and well-controlled clinical trials. Conducting clinical trials is a lengthy, time consuming, and expensive process. The length of time might vary substantially according to the type, complexity, novelty, and intended use of the product candidate, and often can be several years or more per trial. Delays associated with products for which we are directly conducting preclinical or clinical trials might cause us to incur additional operating expenses. The commencement and rate of completion of clinical trials might be delayed by many factors, including, for example:

- inability to manufacture sufficient quantities of qualified materials under cGMP for use in clinical trials;

- slower than expected rates of patient recruitment;

- failure to recruit a sufficient number of patients;
- modification of clinical trial protocols;
- changes in regulatory requirements for clinical trials;
- the lack of effectiveness during clinical trials;
- the emergence of unforeseen safety issues;
- delays, suspension, or termination of clinical trials by the institutional review board responsible for overseeing the study at a particular study site; and
- government, institutional review board or other regulatory delays or clinical holds requiring suspension or termination of the trials.

We still must complete pharmacological and toxicity testing for VEN 309. In addition, because VEN 309 may be used as a chronic treatment, we are also required to complete long-term carcinogenicity testing. If any of this testing demonstrates meaningful toxicity, it could delay or prevent us from obtaining regulatory approval of VEN 309.

The results from preclinical testing and early clinical trials are not necessarily predictive of results obtained in later clinical trials. Accordingly, even if we obtain or have obtained positive results from preclinical or early clinical trials, we might not achieve the same success in future clinical trials. For example, although positive results have been observed in earlier clinical trials of each of VEN 309, VEN 307 and VEN 308, there is no assurance that any of our future clinical trials will be successful. Clinical trials might not provide statistically significant data supporting a product candidate's safety and effectiveness to meet the requisite regulatory approvals.

We intend to rely on one or more contract research organizations, or CROs, to conduct our clinical trials for VEN 309 and VEN 307. We will be highly dependent on these CROs to conduct our trials in accordance with the requirements of the FDA and good scientific practice. In the event the CROs fail to perform their duties in such a fashion, we may not obtain regulatory approval for any of our product candidates.

The failure of clinical trials to demonstrate safety and effectiveness for the desired indications could harm the development of that product candidate and other product candidates. This failure could cause us to abandon a product candidate and could delay development of other product candidates. Any delay in, or termination of, our clinical trials would delay the filing of our NDAs with the FDA and, ultimately, our ability to commercialize our product candidates and generate product revenues. Any change in, or termination of, our clinical trials could materially harm our business, financial condition, and results of operation.

**Existing and unforeseen safety issues could hinder the development of our product candidates and their adoption, if approved.**

VEN 309, like numerous other drugs, is dependent on the CYP2D6 enzyme for its metabolism. An important property of CYP2D6 is that its activity is affected by genetic variability in individuals, including individuals who are CYP2D6 deficient and that its activity can be reduced by certain drugs. If this enzyme is inhibited by other medications being taken by a patient or the patient has a genetically reduced amount or a deficiency of the enzyme, and the patient takes VEN 309, the patient might have a higher level of iferanserin in his or her blood and might experience side effects although we are unaware of what the side effects might be. One patient in one of our Phase I trials had a genetic reduction of this enzyme and did experience substantially higher levels of VEN 309 in his blood. However, no side effects were observed in this patient. There are several well known drugs that also are dependent on CYP2D6, including several antidepressants as well as tamoxifen. We might restrict the use of VEN 309 in patients taking medications that inhibit or are dependent on the CYP2D6 enzyme, depending on the outcome of clinical drug-drug interaction clinical studies that we have initiated. VEN 309 has demonstrated arrythmogenic potential in in vitro (hERG channel) studies at exposures 60-100 times the topical 0.5% twice daily dose being studied in humans. We expect to conduct an arrhythmia clinical study ("thorough QT study") as part of our Phase III clinical pharmacology program, which studies are routinely required by the FDA. Even though VEN 309 has a wide safety margin in this area, we cannot be certain of the outcome of this study, and demonstration of clinically meaningful arrhythmia risks could compromise or prevent the approvability of the product in major markets.

Both VEN 307 and VEN 308 have been safely used extensively for decades when given orally at much higher exposures (blood levels) than currently under study in the topical application of VEN 307 and VEN 308. Despite these safety records, other safety issues could arise during testing of our products, which might delay testing or prevent further development entirely. If a product is approved, any limitation on use that might be necessary could hinder its adoption in the marketplace. In addition, if any product is approved, it could be used against any instructions that we publish that limit its use, which could subject us to litigation.

**If we cannot compete successfully for market share against other drug companies, we might not achieve sufficient product revenues and our business will suffer.**

If our product candidates receive FDA approval, they will compete with a number of existing and future drugs and therapies developed, manufactured and marketed by others. Existing or future competing drugs might provide greater therapeutic convenience or clinical or other benefits for a specific indication than our products, or might offer comparable performance at a lower cost. If our products fail to capture and maintain market share, we might not achieve sufficient product revenues and our business will suffer.

We might compete against fully integrated pharmaceutical companies and smaller companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors, either alone or together with their collaborative partners, operate larger research and development programs or have substantially greater financial resources than we do, as well as significantly greater experience in:

- developing drugs;
- undertaking pre-clinical testing and human clinical trials;
- obtaining FDA and other regulatory approvals of drugs;
- formulating and manufacturing drugs; and
- launching, marketing and selling drugs.

We might not obtain the same resources and experience as our competitors. If we are unable to perform these tasks effectively and efficiently, our results of operations might be materially adversely affected.

**Developments by competitors might render our products or technologies obsolete or non-competitive.**

The pharmaceutical and biotechnology industries are intensely competitive. We might compete with organizations that are developing treatments for the indications that our products target.

To our knowledge, there is currently only one FDA-approved drug for the treatment of anal fissures. Rectiv, a topical nitroglycerin treatment, was approved in late June 2011 by the FDA, and is expected to come to market in the first quarter of 2012. For the treatment of fecal incontinence, Solesta, an injectable therapy developed by Oceana Therapeutics, was approved as a device by the FDA in 2011 and is expected to come to market in 2012. To our knowledge, there are no other products approved or in development although there are two non-drug products in development. For the treatment of hemorrhoids, some physicians are known to prescribe topical steroids, although such treatment has not been approved by the FDA for this indication. Further, many hemorrhoid sufferers use Wyeth’s Preparation H or similar products for symptomatic relief (active ingredients can vary by country but generally include glycerin, phenylephrine HCl, pramoxine HCl, white petrolatum, shark liver oil and/or witch hazel). No data are publicly available regarding the clinical efficacy of this or other over-the-counter symptomatic treatments for hemorrhoids. Finally, there are surgical devices being studied for the treatment of hemorrhoids. If our competitors develop effective treatments for anal fissure, fecal incontinence or hemorrhoids and successfully commercialize those treatments, our business and prospects might be materially harmed.

**If we are not able to develop collaborative marketing relationships with licensees or partners, or create an effective internal sales, marketing, and distribution capability, we might be unable to market our products successfully.**

To market our products, we will have to establish our own marketing and sales force or out-license our product candidates to, or collaborate with, larger firms with experience in marketing and selling pharmaceutical products. There can be no assurance that we will be able to successfully establish our own marketing capabilities or establish marketing, sales, or distribution relationships with third parties; that such relationships, if established, will be successful; or that we will be successful in gaining market acceptance for our products. To the extent that we enter into any marketing, sales, or distribution arrangements with third parties, our product revenues will be lower than if we marketed and sold our products directly, and any revenues we receive will depend upon the efforts of such third parties. If we are unable to establish such third-party sales and marketing relationships, or choose not to do so, we will have to establish our own in-house capabilities. Although our employees have extensive experience in the commercialization of drug products, we, as a company, have no experience in marketing or selling pharmaceutical products and currently have no sales, marketing, or distribution infrastructure. To market any of our products directly, we would need to develop a marketing, sales, and distribution force that both has technical expertise and the ability to support a distribution capability. To establish our own marketing, sales, and distribution capacity would significantly increase our costs, and require substantial additional capital. In addition, there is intense competition for proficient sales and marketing personnel, and we might not be able to attract individuals who have the qualifications necessary to market, sell, and distribute our products. There can be no assurance that we will be able to establish internal marketing, sales, or distribution capabilities.

**Physicians and patients might not accept and use our drugs.**

Even if the FDA approves one of our product candidates, physicians and patients might not accept and use it. Acceptance and use of our products will depend upon a number of factors, including:

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

If our current product candidates are approved, we expect sales to generate substantially all of our revenues for the foreseeable future, and as a result, the failure of these products to find market acceptance would harm our business and would require us to seek additional financing.

**Our ability to generate product revenues will be diminished if our products sell for inadequate prices or patients are unable to obtain adequate levels of reimbursement.**

Our ability to commercialize our products, alone or with collaborators, will depend in part on the extent to which reimbursement will be available from:

- government and health administration authorities;
- private health maintenance organizations and health insurers; and
- other healthcare payors.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payors, including Medicare, are challenging the prices charged for medical products and services. Government and other healthcare payors increasingly attempt to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs. Even if our product candidates are approved by the FDA, insurance coverage might not be available, and reimbursement levels might be inadequate, to cover our products. If government and other healthcare payors do not provide adequate coverage and reimbursement levels for our products, once approved, market acceptance of such products could be reduced.

Proposals to modify the current health care system in the U.S. to improve access to health care and control its costs are continually being considered by the federal and state governments. In March 2010, the U.S. Congress passed landmark healthcare reform legislation. We cannot predict what impact on federal reimbursement policies and regulatory compliance landscape this legislation will have in general or on our business specifically. Members of the U.S. Congress and some state legislatures are seeking to overturn at least portions of the legislation and the U.S. Supreme Court is scheduled to hear in March 2012 a case challenging the constitutionality of the legislation. We expect continued judicial and legislative review and assessment of this legislation and possibly alternative health care reform proposals. We cannot predict judicial results or whether new proposals will be made or adopted, when they may be adopted or what impact they may have on us if they are adopted.

Health administration authorities in countries other than the U.S. may not provide reimbursement for our products at rates sufficient for us to achieve profitability, or at all. Like the U.S., these countries could adopt health care reform proposals and could materially alter their government-sponsored health care programs by reducing reimbursement rates.

Any reduction in reimbursement rates under Medicare or private insurers or foreign health care programs could negatively affect the pricing of our products. If we are not able to charge a sufficient amount for our products, then our margins and our profitability will be adversely affected.

**If we lose key management or scientific personnel, cannot recruit qualified employees, directors, officers, or other significant personnel or experience increases in our compensation costs, our business might materially suffer.**

We are highly dependent on the services of our Chairman, Chief Executive Officer and acting Chief Medical Officer, Dr. Russell H. Ellison and our Chief Business Officer, Thomas Rowland. Our employment agreements with Dr. Ellison and Mr. Rowland do not ensure the retention of either. This is also true for our other management team members, both present and future.

Furthermore, our future success also depends, in part, on our ability to identify, hire, and retain additional management team members as our operations grow. We expect to experience intense competition for qualified personnel and might be unable to attract and retain the personnel necessary for the development of our business. Finally, we do not currently maintain, nor do we intend to obtain in the future, “key man” life insurance that would compensate us in the event of the death or disability of any of the members of our management team.

**If we cannot enforce non-compete and confidentiality provisions applicable to our employees and consultants, our business might materially suffer.**

We include a non-compete provision in any employment agreement we enter into with an employee including Dr. Ellison and Mr. Rowland, that runs during the term of the agreement and for six months after termination, and up to one year after termination if Mr. Rowland voluntarily resigns without good reason (as defined in his employment agreement). This non-compete provision was also included in employment agreements with our former chief medical officer and chief scientific officer, which have lapsed.

We include a confidentiality provision in any employment or consulting agreement we enter into with an employee or a consultant. The confidentiality provision runs during the term of the agreement and thereafter without limit. As a result, the confidentiality provisions contained in the employment agreements with our former chief medical officer and chief scientific officer remain in effect and are in effect under all of our current consulting agreements.

For future employees with whom we do not enter into an employment agreement, we will enter into a confidentiality agreement with the same provisions described above.

To be able to enforce these non-compete and confidentiality provisions we would need to know of any breach and have sufficient funds to enforce the provisions. We cannot assure you that we would know of or be able to afford enforcement of any breach. In addition, such provisions are subject to state law and interpretation by courts, which could limit the scope and duration of these provisions. Any limitation on or non-enforcement of these non-compete and confidentiality provisions could have an adverse effect on our business.

**If we are unable to hire additional qualified personnel, our ability to grow our business might be harmed.**

At December 31, 2011, we had seven employees, seven consultants, and three contract research organizations with whom we have contracted to carry out our business plan. While we believe this will provide us with sufficient staffing to develop VEN 309 and VEN 307 through the fourth quarter of 2013, we will need to hire or contract with additional qualified personnel with expertise in clinical research and testing, government regulation, formulation and manufacturing and sales and marketing to commercialize VEN 309 and VEN 307 and to develop VEN 308. We compete for qualified individuals with numerous biopharmaceutical companies, universities and other research institutions. Competition for these individuals is intense, and we cannot be certain that our search for such personnel will be successful. Attracting and retaining qualified personnel will be critical to our success.

**We might not successfully manage our growth.**

Our success will depend upon the expansion of our operations and the effective management of our growth, which will place a significant strain on our current and future management and other administrative and operational resources. To manage this growth, we must expand our facilities, augment our operational, financial and management systems and hire and train additional qualified personnel. If we are unable to manage our growth effectively, our business would be harmed.

**We might seek to develop our business through acquisitions of or investment in new or complementary businesses, products or technologies, and the failure to manage these acquisitions or investments, or the failure to integrate them with our existing business, could have a material adverse effect on us.**

We might consider opportunities to acquire or invest in other technologies, products and businesses that might enhance our capabilities or complement our current product candidates. Potential and completed acquisitions and strategic investments involve numerous risks, including potential problems or issues associated with the following:

- assimilating the purchased technologies, products or business operations;
- maintaining uniform standards, procedures, controls and policies;
- unanticipated costs associated with the acquisition or investment;
- diversion of our management’s attention from our preexisting business;
- maintaining or obtaining the necessary regulatory approvals or complying with regulatory standards; and
- adverse effects on existing business operations.

We have no current commitments with respect to any acquisition or investment in other technologies or businesses. We do not know if we will identify suitable acquisitions, whether we will be able to successfully complete any acquisitions, or whether we will be able to successfully integrate any acquired product, technology or business into our business or retain key personnel, suppliers or collaborators.

Our ability to successfully develop our business through acquisitions would depend on our ability to identify, negotiate, complete and integrate suitable target businesses or technologies and obtain any necessary financing. These efforts could be expensive and time consuming and might disrupt our ongoing operations. If we are unable to efficiently integrate any acquired business, technology or product into our business, our business and financial condition might be adversely affected.

## *Risks Related to Our Regulatory and Legal Environment*

**We are subject to extensive and costly government regulation.**

Product candidates employing our technology are subject to extensive and rigorous domestic government regulation including regulation by the FDA, the Centers for Medicare and Medicaid Services, other divisions of the U.S. Department of Health and Human Services, the U.S. Department of Justice, state and local governments, and their respective foreign equivalents. The FDA regulates the research, development, preclinical and clinical testing, manufacture, safety, effectiveness, record-keeping, reporting, labeling, storage, approval, advertising, promotion, sale, distribution, import, and export of pharmaceutical products. The FDA regulates small molecule chemical entities, whether administered orally, topically or by injection, as drugs, subject to an NDA, under the Federal Food, Drug, and Cosmetic Act. If products employing our technologies are marketed abroad, they will also be subject to extensive regulation by foreign governments, whether or not they have obtained FDA approval for a given product and its uses. Such foreign regulation might be equally or more demanding than corresponding U.S. regulation.

Government regulation substantially increases the cost and risk of researching, developing, manufacturing, and selling our products. The regulatory review and approval process, which includes preclinical testing and clinical trials of each product candidate, is lengthy, expensive, and uncertain. We or our collaborators must obtain and maintain regulatory authorization to conduct clinical trials and approval for each product we intend to market, and the manufacturing facilities used for the products must be inspected and meet legal requirements. Securing regulatory approval requires submitting extensive preclinical and clinical data and other supporting information for each proposed therapeutic indication in order to establish the product's safety and efficacy for each intended use. The development and approval process might take many years, requires substantial resources, and might never lead to the approval of a product.

Even if we are able to obtain regulatory approval for a particular product, the approval might limit the intended medical uses for the product, limit our ability to promote, sell, and distribute the product, require that we conduct costly post-marketing surveillance, and/or require that we conduct ongoing post-marketing studies. Material changes to an approved product, such as, for example, manufacturing changes or revised labeling, might require further regulatory review and approval. Once obtained, any approvals might be withdrawn, including, for example, if there is a later discovery of previously unknown problems with the product, such as a previously unknown safety issue.

If we, our collaborators, or our contract manufacturers fail to comply with applicable regulatory requirements at any stage during the regulatory process, such noncompliance could result in, among other things, delays in the approval of applications or supplements to approved applications; refusal of a regulatory authority, including the FDA, to review pending market approval applications or supplements to approved applications; untitled letter or warning letters; fines; import and export restrictions; product recalls or seizures; injunctions; total or partial suspension of production; civil penalties; withdrawals of previously approved marketing applications or licenses; recommendations by the FDA or other regulatory authorities against governmental contracts; and/or criminal prosecutions.

**We might not obtain the necessary U.S. or worldwide regulatory approvals to commercialize any product candidate.**

We cannot assure you that we will receive the approvals necessary to commercialize for sale any of our product candidates, or any product candidate we acquire or develop in the future. We will need FDA approval to commercialize our product candidates in the U.S. and approvals from the FDA-equivalent regulatory authorities in foreign jurisdictions to commercialize our product candidates in those jurisdictions. In order to obtain FDA approval of any product candidate, we must submit to the FDA an NDA demonstrating that the product candidate is safe for humans and effective for its intended use. This demonstration requires significant research, pre-clinical studies, and clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product candidate and requires substantial resources for research, development and testing. We cannot predict whether our research and clinical approaches will result in drugs that the FDA considers safe for humans and effective for their indicated uses. The FDA has substantial discretion in the drug approval process and might require us to conduct additional pre-clinical and clinical testing, perform post-marketing studies or otherwise limit or impose conditions on any approval we obtain. For example, in late April 2011, the FDA proposed that we include an additional one week treatment arm in our pivotal Phase III trials for VEN 309 to evaluate whether patients could be fully treated within seven days, in addition to the 14-day period we proposed testing. We agreed with the FDA and added the third arm, which increased the costs of the pivotal study.

The approval process might also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals might:

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

Even if we comply with all FDA requests, the FDA might ultimately reject one or more of our NDAs. We cannot be sure that we will ever obtain regulatory approval for our product candidates. Failure to obtain FDA approval of our product candidates will severely undermine our business by leaving us without a saleable product, and therefore without any source of revenues, until another product candidate could be developed or obtained. There is no guarantee that we will ever be able to develop or acquire another product candidate.

In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize any drugs. The risks associated with foreign regulatory approval processes are similar to the risks associated with the FDA approval procedures described above. We cannot assure you that we will receive the approvals necessary to commercialize our product candidates for sale outside the U.S.

**Even if approved, our products will be subject to extensive post-approval regulation.**

Once a product is approved, numerous post-approval requirements apply. Among other things, the holder of an approved NDA is subject to ongoing FDA oversight monitoring and reporting obligations, including obligations to monitor and report adverse events and instances of the failure of a product to meet the specifications in the NDA. Application holders must submit new or supplemental applications and obtain FDA approval for changes to the approved product, product labeling, or manufacturing process. Application holders also must submit advertising and other promotional material to the FDA and report on ongoing clinical trials. The FDA also has the authority to require changes in the labeling of approved drug products and to require post-marketing studies.

Advertising and promotional materials must comply with FDA rules in addition to other applicable federal and state laws. The distribution of product samples to physicians must comply with the requirements of the Prescription Drug Marketing Act. Manufacturing facilities remain subject to FDA inspection and must continue to adhere to the FDA's cGMP requirements. Application holders must obtain FDA approval for product, manufacturing, and labeling changes, depending on the nature of the change. Sales, marketing, and scientific/educational grant programs, among other activities, must comply with the anti-fraud and abuse provisions of the Social Security Act, the False Claims Act, and similar state laws, each as amended. Pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990 and the Veteran's Health Care Act of 1992, each as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

Depending on the circumstances, failure to meet these post-approval requirements can result in criminal prosecution, fines, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, or refusal to allow us to enter into supply contracts, including government contracts. In addition, even if we comply with FDA and other requirements, new information regarding the safety or effectiveness of a product could lead the FDA to modify or withdraw product approval.

**We face the risk of product liability claims and might not be able to obtain insurance.**

Our business exposes us to the risk of product liability claims that are inherent in the development of drugs. If the use of one or more of our or our collaborators' drugs harms people, we might be subject to costly and damaging product liability claims brought against us by clinical trial participants, consumers, health care providers, pharmaceutical companies or others selling our products. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products we develop. We currently do not carry clinical trial insurance or product liability insurance for VEN 307. We obtained such insurance prior to beginning the Phase III trial for VEN 309. We cannot predict all of the possible harms or side effects that might result and, therefore, the amount of insurance coverage we hold now or in the future might not be adequate to cover all liabilities we might incur. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for our drug candidates in development, but we might be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. If we are unable to obtain insurance at an acceptable cost or otherwise protect against potential product liability claims, we will be exposed to significant liabilities, which might materially and adversely affect our business and financial position. If we are sued for any injury allegedly caused by our or our collaborators' products, our liability could exceed our total assets and our ability to pay the liability. A successful product liability claim or series of claims brought against us would decrease our cash and could cause the value of our common stock to decrease.

**We might be exposed to liability claims associated with the use of hazardous materials and chemicals.**

Our research, development and manufacturing activities and/or those of our third-party contractors might involve the controlled use of hazardous materials and chemicals. Although we will strive to have our safety procedures, and those of our contractors, for using, storing, handling and disposing of these materials comply with federal, state and local laws and regulations, we cannot completely eliminate the risk of accidental injury or contamination from these materials. In the event of such an accident, we could be held liable for any resulting damages, and any liability could materially adversely affect our business, financial condition and results of operations. In addition, the federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous or radioactive materials and waste products might require us to incur substantial compliance costs that could materially adversely affect our business, financial condition and results of operations. We currently do not carry hazardous materials liability insurance. We intend to obtain such insurance in the future if necessary.

## ***Risks Related to Our Intellectual Property***

**Our patent for the concentration range of VEN 309 may not issue and our existing composition of matter patent covering VEN 309 could be invalidated.**

Different concentrations of a drug are separately patentable under certain circumstances. Because of unexpected differences between concentrations of the product that were observed in the clinical program (i.e. that 0.5% concentration is superior to a 0.25% and a higher 1.0% concentration in the comprehensive reduction in hemorrhoid symptoms), which data have not been previously published, on August 23, 2010, we filed method of use patent applications in the U.S. and internationally for VEN 309, claiming a specific concentration range. The patent, if issued, could be considered new art and provide patent protection for 20 additional years. However, if our existing composition of matter patent for VEN 309 is challenged by a third party and invalidated, and the concentration patent is never issued and even if issued is challenged by a third party, we would have only five years of U.S. data exclusivity under the Hatch-Waxman Act from the time VEN 309 is approved.

**Our business depends on protecting our intellectual property.**

If we and our licensor S.L.A. Pharma do not obtain protection for our respective intellectual property rights, our competitors might be able to take advantage of our research and development efforts to develop competing drugs.

Our success, competitive position and future revenues, if any, depend in part on our ability and the abilities of our licensors to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights and to operate without infringing the proprietary rights of third parties. To date, we hold some exclusive patent rights, including rights under U.S. patents and patent applications as well as rights under foreign patents and patent applications. We anticipate filing additional patent applications both in the U.S. and in other countries, as appropriate. However, the patent process is subject to numerous risks and uncertainties, and there can be no assurance that we will be successful in protecting our products by obtaining and defending patents. These risks and uncertainties include the following:

- Our patent rights might be challenged, invalidated, or circumvented, or otherwise might not provide any competitive advantage;

- Our competitors, many of which have substantially greater resources than we do and many of which might make significant investments in competing technologies, might seek, or might already have obtained, patents that will limit, interfere with, or eliminate our ability to make, use, and sell our potential products either in the U.S. or in international markets;

- As a matter of public policy regarding worldwide health concerns, there might be significant pressure on the U.S. government and other international governmental bodies to limit the scope of patent protection both inside and outside the U.S. for disease treatments that prove successful; and

- Countries other than the U.S. might have less restrictive patent laws than those upheld by U.S. courts, allowing foreign competitors the ability to exploit these laws to create, develop, and market competing products.

In addition, the U.S. Patent and Trademark Office and patent offices in other jurisdictions have often required that patent applications concerning pharmaceutical and/or biotechnology-related inventions be limited or narrowed substantially to cover only the specific innovations exemplified in the patent application, thereby limiting the scope of protection against competitive challenges. Thus, even if we or our licensors are able to obtain patents, the patents might be substantially narrower than anticipated.

In addition to patents, we also rely on trade secrets and proprietary know-how. Although we take measures to protect this information by entering into confidentiality and inventions agreements with our employees, scientific advisors, consultants, and collaborators, we cannot provide any assurances that these agreements will not be breached, that we will be able to protect ourselves from the harmful effects of disclosure if they are breached, or that our trade secrets will not otherwise become known or be independently discovered by competitors. If any of these events occurs, or we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced.

Patent and other intellectual property protection is crucial to the success of our business and prospects, and there is a substantial risk that such protections will prove inadequate. Our business and prospects will be harmed if these protections prove insufficient.

**Our non-compete with Amer, Dr. Sam Amer and his wife may not be enforceable.**

As a condition to our purchase of VEN 309 from Amer, each of Amer, Dr. Sam Amer and his wife entered into a five-year non-compete agreement with us. The non-compete applies to the U.S. and its territories and anywhere else in the world where a patent has issued for VEN 309 and prohibits Amer, Dr. Amer and/or his wife, directly or indirectly, from owning an interest in, managing, operating, joining, controlling or participating in the ownership, management, operation or control of any profit or non-profit business or organization that conducts research, develops, formulates, tests, produces, licenses, commercializes, manufactures or distributes a product incorporating VEN 309 or any product which has the function of affecting the $5HT_{2A}$ receptor. The enforceability of non-competes is a matter of state law and courts generally look with disfavor on non-competes that are not narrowly drawn. California is particularly strict with the limitations that may be imposed by non-compete agreements and the geographic scope must be limited to the entity's or individual's "scope of business". While we believe that the non-compete has been drafted to comply with California law, we cannot be certain that it will be enforced. However, Amer, Dr. Amer and his wife could challenge the non-compete in court or choose to violate it in which event we would have to sue to enforce it. Either situation would be costly, might distract the attention of our management and the court might not uphold the non-compete. Further, the milestone and royalty payments we must pay Amer are not contingent on compliance with the non-compete. If Amer, Dr. Amer and/or his wife competed against us in developing a product incorporating VEN 309, it could have a material adverse effect on our business.

**We rely on trade secret protections through confidentiality agreements with our employees, customers and other parties, and the breach of these agreements could adversely affect our business and prospects.**

We rely on trade secrets, which we seek to protect, in part, through confidentiality and non-disclosure agreements with our employees, collaborators, supplies, and other parties. There can be no assurance that these agreements will not be breached, that we would have adequate remedies for any such breach or that our trade secrets will not otherwise become known to or independently developed by our competitors. We might be involved from time to time in litigation to determine the enforceability, scope and validity of our proprietary rights. Any such litigation could result in substantial cost and divert management's attention from our operations.

**If we infringe the rights of third parties we might have to forgo selling our future products, pay damages, or defend against litigation.**

If our product candidates, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we might have to:

- obtain licenses, which might not be available on commercially reasonable terms, if at all;
- abandon an infringing product candidate;
- redesign our products or processes to avoid infringement;
- stop using the subject matter claimed in the patents held by others;
- pay damages; and/or
- defend litigation or administrative proceedings which might be costly whether we win or lose, and which could result in a substantial diversion of our financial and management resources.

Any of these events could substantially harm our earnings, financial condition and operations.

## ***Risks Related to Our Common Stock***

**There are interlocking relationships among us and certain affiliates of Paramount Biosciences, LLC, which might present potential conflicts of interest.**

Dr. Lindsay Rosenwald is the Chairman, Chief Executive Officer and sole stockholder of Paramount BioCapital, Inc., or Paramount, and is the sole member of Paramount BioSciences, LLC. We acquired the rights to VEN 307 and VEN 308 from Paramount BioSciences who had licensed them from S.L.A. Pharma. Dr. Rosenwald individually and through entities he controls beneficially owned as of December 31, 2011 approximately 7.8% of our issued and outstanding common stock, excluding any shares issuable upon the exercise of warrants.

In consideration of his guaranteeing the $800,000 promissory note we issued to Israel Discount Bank of New York in September 2010, we entered into a letter agreement with Dr. Rosenwald whereby Dr. Rosenwald has the right to attend our board meetings, which right he has not exercised since May 2011, and to appoint two directors to our board. Dr. Rosenwald has never exercised his right to appoint those directors. If and when appointed, these directors would be subject to stockholder approval at the expiration of their terms. This potential board representation, coupled with his beneficial ownership of approximately 7.8% of the common stock of our company, increases Dr. Rosenwald's ability to potentially influence our board of directors and the management of our company. Dr. Rosenwald's rights will terminate upon the earlier to occur of (a) August 30, 2015, (b) the merger, consolidation or sale of all or substantially all of our stock or assets in a transaction or series of transactions immediately after which our stockholders as of immediately prior to the transaction hold less than 50% of the outstanding voting securities of the surviving, acquiring or parent corporation, or (c) Dr. Rosenwald's ownership of our company is less than 5.0% of the outstanding shares of our capital stock.

As of December 31, 2011, we owed Paramount Corporate Development, LLC, an affiliate of Dr. Rosenwald's, $100,000 for services previously rendered and for which there is no due date.

Generally, Delaware corporate law, under which we are governed, requires that any transactions between us and any of our affiliates be on terms that, when taken as a whole, are substantially as favorable to us as those then reasonably obtainable from a person who is not an affiliate in an arms-length transaction. We believe that the terms of our relationships with Dr. Rosenwald, Paramount BioSciences and their affiliates satisfy the requirement of Delaware law, but in the event that one or more parties challenges the fairness of such terms, we might have to expend substantial resources in resolving the challenge, and we can make no guarantees as to the result.

None of our affiliates, Paramount BioSciences, its affiliates or Dr. Rosenwald is obligated pursuant to any agreement or understanding with us to make any additional products or technologies available to us, nor can there be any assurance, and we do not expect and purchasers of our common stock should not expect, that any biomedical or pharmaceutical product or technology identified by such affiliates, Paramount BioSciences, its affiliates or Dr. Rosenwald in the future will be made available to us. In addition, certain of our current officers and directors or certain of any officers or directors hereafter appointed or elected might from time to time serve as officers or directors of other biopharmaceutical or biotechnology companies. There can be no assurance that such other companies will not have interests in conflict with our own.

**Dr. Rosenwald may exert significant influence on our board of directors and the management of our company.**

As of December 31, 2011, Dr. Rosenwald and his affiliates beneficially owned approximately 7.8% of our issued and outstanding capital stock, excluding any shares issuable upon the exercise of warrants. In addition, in consideration of his guaranteeing the $800,000 promissory note we issued to Israel Discount Bank of New York in September 2010, we entered into a letter agreement with Dr. Rosenwald whereby Dr. Rosenwald has the right to attend our board meetings and to appoint two directors to our board. Dr. Rosenwald has not exercised his observer rights since May 2011 and has never exercised his right to appoint a director. As a result of this agreement, Dr. Rosenwald and his affiliates could exert significant influence on the election of our board of directors and the outcome of issues submitted to our stockholders, including any merger, consolidation, or sale of all or substantially all of our assets. The interests of Dr. Rosenwald and his affiliates might not coincide with the interests of other holders of our capital stock. This concentration of ownership may harm the value of our common stock by, among other things:

- delaying, deferring or preventing a change in control of our company;
- impeding a merger, consolidation, takeover or other business combination involving our company; or
- causing us to enter into transaction or agreements that are not in the best interests of all stockholders.

**We might not be able to maintain the listing of our common stock on the NASDAQ Capital Market.**

Our common stock is listed on the NASDAQ Capital Market under the symbol "VTUS." We might not be able to maintain the listing standards of that exchange. If we fail to maintain the listing requirements, our common stock might trade on the OTC Bulletin Board or in the "pink sheets" maintained by Pink OTC Markets, Inc. These alternative markets are generally considered to be markets that are less efficient and less broad than the NASDAQ Capital Market.

**The price of our common stock might fluctuate significantly, and you could lose all or part of your investment.**

Since we went public on December 22, 2010, the price of our common stock has fluctuated between $6.00 and $21.00. Volatility in the market price of our common stock might prevent you from being able to sell your shares of our common stock at or above the price you paid for such shares. The trading price of our common stock might be volatile and subject to wide price fluctuations in response to various factors, including:

- results of our clinical trials and other studies;

- availability of capital;
- future sales of our common stock;
- sale of shares of our common stock by our significant stockholders or members of our management;
- additions or departures of key personnel;
- investor perceptions of us and the pharmaceutical industry;
- issuance of new or changed securities analysts' reports or recommendations, or the announcement of any changes to our credit rating;
- success or failure of our product candidates;
- introduction of new products or announcements of significant contracts, acquisitions or capital commitments by us or our competitors;
- threatened or actual litigation and government investigations;
- legislative, political or regulatory developments;
- the overall performance of the equity markets;
- actual or anticipated fluctuations in our quarterly financial and operating results;
- general economic conditions;
- changes in interest rates; and
- changes in accounting standards, policies, guidance, interpretations or principles.

These and other factors might cause the market price of our common stock to fluctuate substantially, which might limit or prevent investors from readily selling their shares of our common stock and might otherwise negatively affect the liquidity of our common stock. In addition, in recent years, the stock market has experienced significant price and volume fluctuations. This volatility has had a significant impact on the market price of securities issued by many companies across many industries. The changes frequently appear to occur without regard to the operating performance of the affected companies. Accordingly, the price of our common stock could fluctuate based upon factors that have little or nothing to do with our company, and these fluctuations could materially reduce our share price.

**The requirements of being a public company adds to our operating costs and might strain our resources and distract our management.**

As a public company, we face increased legal, accounting, administrative and other costs and expenses not faced by private companies. We are subject to the reporting requirements of the Securities Exchange Act of 1934, which requires that we file annual, quarterly and current reports with respect to our business and financial condition, and the rules and regulations implemented by the SEC, the Sarbanes-Oxley Act of 2002, and the NASDAQ Capital Market, each of which imposes additional reporting and other obligations on public companies. These rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly, although we are currently unable to estimate these costs with any degree of certainty. Complying with these requirements might divert management's attention from other business concerns, which could have a material adverse effect on our prospects, business, and financial condition.

Additionally, the expenses incurred by public companies generally for reporting and corporate governance purposes have been increasing. These increased costs will require us to divert a significant amount of money that we could otherwise use to develop our product candidates or otherwise expand our business. If we are unable to satisfy our obligations as a public company, we could be subject to delisting of our common stock, fines, sanctions and other regulatory action and potentially civil litigation.

**Our internal control over financial reporting currently has material weaknesses, and failure to achieve and maintain effective internal control over financial reporting could have a material adverse effect on our business and stock price.**

As a public company, we must maintain internal control over financial reporting in a manner that meets the standards of publicly traded companies. We anticipate being required to meet these standards in the course of preparing our financial statements as of and for the year ended December 31, 2011, and our management will be required to report on the effectiveness of our internal control over financial reporting as of December 31, 2011. The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. We are in the process of reviewing, documenting and testing our internal control over financial reporting. We might encounter problems or delays in completing the implementation of any changes necessary to make a favorable assessment of our internal control over financial reporting. If we cannot favorably assess the effectiveness of our internal control over financial reporting, investors could lose confidence in our financial information and the price of our common stock could decline.

**We do not intend to pay dividends for the foreseeable future and our stock may not appreciate in value.**

We currently intend to retain our future earnings, if any, to finance the operation and growth of our business and do not expect to pay any cash dividends in the foreseeable future. As a result, the success of an investment in shares of our common stock will depend upon any future appreciation in its value. There is no guarantee that shares of our common stock will appreciate in value or that the price at which our stockholders have purchased their shares will be able to be maintained.

**Several provisions of the Delaware General Corporation Law and our amended and restated certificate of incorporation and bylaws could discourage, delay or prevent a merger or acquisition, which could adversely affect the market price of our common stock.**

Several provisions of the Delaware General Corporation Law and our amended and restated certificate of incorporation and bylaws could discourage, delay or prevent a merger or acquisition that stockholders may consider favorable, and the market price of our common stock could be reduced as a result. These provisions include:

- “blank check” preferred stock;
- prohibiting us from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder unless certain provisions are met;
- prohibiting cumulative voting in the election of directors;
- limiting the persons who may call special meetings of stockholders;
- establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings; and
- the ability of our board of directors to increase its size and fill vacancies.

**We will need additional financing to fund our activities in the future, which likely will dilute our stockholders.**

We anticipate that we will incur operating losses for the foreseeable future. Additionally, we believe we will require substantial funds in the future to support our operations. We expect to seek equity or debt financings in the future to fund our operations. The issuance of additional equity securities, or convertible debt or other derivative securities, likely will dilute some if not all of our then existing stockholders, depending on the financing terms.

**Shares eligible for registration for future sale, if and when sold may adversely affect the market price of our common stock, as the future market sale of a substantial amount of outstanding stock in the public marketplace could reduce the price of our common stock.**

Holders of an aggregate of approximately 925,000 shares of our common stock issuable upon the exercise of warrants are entitled to rights to register the shares held by them under the Securities Act pursuant to registration rights granted to the holders of these securities. We intend to file in the near future a registration statement covering the resale of these shares. Any substantial sale of common stock by these holders after this offering may have an adverse effect on the market price of our common stock.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This base prospectus and the documents we have filed with the SEC that are incorporated herein by reference contain such "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995.

Words such as "may," "might," "should," "anticipate," "estimate," "expect," "projects," "intends," "plans," "believes" and words and terms of similar substance used in connection with any discussion of future operating or financial performance, identify forward-looking statements. Forward-looking statements represent management's current judgment regarding future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. These risks include, but are not limited to: risks related to costs, timing, regulatory review and results of our pre-clinical studies and clinical trials; our ability to obtain FDA and foreign approval of our product candidates; differences between historical studies on which we have based our Phase III clinical trials for VEN 309 and VEN 307 and actual results from those trials; our anticipated capital expenditures, our estimates regarding our capital requirements, and our need for future capital; our liquidity and working capital requirements; our expectations regarding our revenues, expenses and other results of operations; the unpredictability of the size of the markets for, and market acceptance of, any of our products, including VEN 309; our ability to sell any approved products and the prices we are able to realize; our need to obtain additional funding and our ability to obtain future funding on acceptable terms, or at all; our ability to retain and hire necessary employees and to staff our operations appropriately; our ability to compete in our industry and innovation by our competitors; our ability to stay abreast of and comply with new or modified laws and regulations that currently apply or become applicable to our business; estimates and estimate methodologies used in preparing our financial statements; and the future trading prices of our common stock and the impact of securities analysts' reports on these prices. Please also see the discussion of risks and uncertainties under "Risk Factors" above and contained in any supplements to this base prospectus, and in our most recent annual report on Form 10-K, as revised or supplemented by our most recent quarterly report on Form 10-Q, as well as any amendments thereto, as filed with the SEC and which are incorporated herein by reference.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this base prospectus or in any document incorporated herein by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this base prospectus or the date of the document incorporated by reference in this base prospectus. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to us or to any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

## USE OF PROCEEDS

We cannot assure you that we will receive any proceeds in connection with securities offered by us pursuant to this base prospectus. Unless otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of our securities by us under this base prospectus for general corporate purposes, including clinical trials, research and development expenses, and general and administrative expenses. We will set forth in the applicable prospectus supplement our intended use for the net proceeds received from the sale of any securities by us. Pending the application of the net proceeds, we intend to invest the net proceeds generally in short-term, investment grade, interest bearing securities.

## RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for each of the periods presented. We did not conduct any operations in 2006. Our earnings were insufficient to cover fixed charges for each of the periods presented. Because of the deficiency, the ratio information is not applicable. The extent to which earnings were insufficient to cover fixed charges is shown below.

| | Nine Months Ended | Year Ended December 31 | | | |
|---|---|---|---|---|---|
| | September 30, 2011 | 2010 | 2009 | 2008 | 2007 |
| Deficiency of earnings available to cover fixed charges | $(418,991) | $(10,530,099) | $(1,199,315) | $(1,635,211) | $ (67,210) |

For purposes of computing the deficiency of earnings available to cover fixed charges, fixed charges represent interest expense, including deferred financing costs and beneficial conversion feature charges.

## PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of the underwriters, if any;
- the purchase price of the securities or other consideration therefor, and the proceeds, if any, we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on the NASDAQ Capital Market may engage in passive market making transactions in the common stock on the NASDAQ Capital Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this base prospectus and any applicable prospectus supplement.

## DESCRIPTION OF COMMON STOCK

Pursuant to our certificate of incorporation, we are authorized to issue 50,000,000 shares of common stock, $0.001 par value per share. As of February 7, 2012, we had 12,406,406 shares of common stock outstanding and approximately 135 stockholders of record.

The following summary of certain provisions of our common stock does not purport to be complete. You should refer to our certificate of incorporation and our bylaws, both of which are included as exhibits to the registration statement we have filed with the SEC in connection with this offering. The summary below is also qualified by provisions of applicable law.

### General

The holders of our common stock are entitled to one vote per share on all matters to be voted on by the stockholders, and there are no cumulative voting rights. Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all shares of common stock present in person or represented by proxy, subject to any voting rights granted to holders of any preferred stock.

The holders of common stock are entitled to receive ratable dividends, if any, payable in cash, in stock or otherwise if, as and when declared from time to time by our board of directors out of funds legally available for the payment of dividends, subject to any preferential rights that may be applicable to any outstanding preferred stock. In the event of a liquidation, dissolution, or winding up of our company, after payment in full of all outstanding debts and other liabilities, the holders of common stock are entitled to share ratably in all remaining assets, subject to prior distribution rights of preferred stock, if any, then outstanding. No shares of common stock have preemptive rights or other subscription rights to purchase additional shares of common stock. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable, and the shares of common stock included in this registration statement will be fully paid and nonassessable. The rights, preferences and privileges of holders of our common stock will be subject to, and might be adversely affected by, the rights of holders of any preferred stock that we may issue in the future. All shares of common stock that are acquired by us shall be available for reissuance by us at any time.

### Transfer Agent and Registrar

The transfer agent and registrar for our common stock is VStock Transfer, LLC, Inc. The transfer agent’s address is 77 Spruce Street, Cedarhurst, New York 11516 and its telephone number is (212) 828-8436.

### NASDAQ Capital Market

Our common stock is listed for quotation on the NASDAQ Capital Market under the symbol “VTUS.” On February 8, 2012, the last reported sale price of our common stock was $9.25 per share.

## DESCRIPTION OF PREFERRED STOCK

Our board of directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by our stockholders. As of the date of this base prospectus, no shares of preferred stock were outstanding. The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation and could have the effect of delaying, deferring or preventing a change in control of our company.

We will fix the rights, preferences, privileges and restrictions of the preferred stock of each series in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this base prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. This description will include any or all of the following, as required:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price;
- the dividend rate, period and payment date and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;
- voting rights, if any, of the preferred stock;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

- any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

If we issue shares of preferred stock under this base prospectus, the shares will be fully paid and non-assessable.

The General Corporation Law of the State of Delaware, the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

## DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provision of any debt securities that we may offer under this base prospectus. While the terms we have summarized below will apply generally to any future debt securities we may offer, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities we may offer under a prospectus supplement may differ from the terms described below. For any debt securities that we may offer, an indenture (and any relevant supplemental indenture) will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this base prospectus, or as an exhibit to reports that we file with the SEC and incorporated by reference in this base prospectus.

With respect to any debt securities that we issue, we will issue such debt securities under an indenture, which we would enter into with the trustee named in the indenture. Any indenture would be qualified under the Trust Indenture Act of 1939.

With respect to any debt securities that we issue, we will describe in each prospectus supplement the following terms relating to a series of debt securities:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and if so, the terms and who the depository will be;
- the maturity date;
- the principal amount due at maturity;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

- whether or not the debt securities will be convertible into shares of our common stock or our preferred stock and, if so, the terms of such conversion;
- whether or not the debt securities will be secured or unsecured by some or all of our assets, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment or interest and the maximum length of any such deferral period;
- the date, if any, after which and the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemptions provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability to pay dividends, or will require us to maintain any asset ratios or reserves;
- whether we will be restricted from incurring any additional indebtedness, issuing additional securities, or entering into a merger, consolidation or sale of our business;
- a discussion of any material or special United States federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- any provisions for payment of additional amounts for taxes;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of $1,000 and any integral multiple thereof;
- events of default;
- whether we and/or the debenture trustee may change an indenture without the consent of any holders;
- the form of debt security and how it may be exchanged and transferred;
- description of the debenture trustee and paying agent, and the method of payments; and
- any other specified terms, preferences, rights or limitations of, or restrictions on, the debt securities and any terms that may be required by us or advisable under applicable laws or regulations.

## DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of any warrants that we may offer under this base prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. With respect to any warrants that we offer, specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this base prospectus or as an exhibit to reports that we file with the SEC and incorporated by reference in this base prospectus:

- the specific designation and aggregate number of, and the price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- if applicable, the exercise price for shares of our common stock or preferred stock and the number of shares of common stock or preferred stock to be received upon exercise of the warrants;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or the common stock issuable upon exercise of the warrants on any securities exchange;
- if applicable, the date from and after which the warrants and the common stock will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of the warrants, if any;
- any redemption or call provisions;
- whether the warrants are to be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

**Transfer Agent and Registrar**

The transfer agent and registrar for any warrants will be set forth in the applicable prospectus supplement.

## DESCRIPTION OF UNITS

We might issue units comprised of one or more debt securities, shares of common stock, shares of preferred stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. We will file as exhibits to the registration statement of which this base prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement, warrant and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We may choose to evidence each series of units by unit certificates that we would issue under a separate agreement. If we choose to evidence the units by unit certificates, we will enter into the unit agreements with a unit agent and will indicate the name and address of the unit agent in the applicable prospectus supplement relating to the particular series of units.

## CERTAIN PROVISIONS OF DELAWARE LAW AND OF THE COMPANY'S CERTIFICATE OF INCORPORATION AND BYLAWS

Certain provisions of Delaware law and our certificate of incorporation and bylaws discussed below may have the effect of making more difficult or discouraging a tender offer, proxy contest or other takeover attempt. These provisions are expected to encourage persons seeking to acquire control of our company to first negotiate with our board of directors. We believe that the benefits of increasing our ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

*Delaware anti-takeover law*

We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date the person became an interested stockholder, unless:

- the board of directors approves the transaction in which the stockholder became an interested stockholder prior to the date the interested stockholder attained that status;
- when the stockholder became an interested stockholder, he or she owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers and certain shares owned by employee benefits plans; or
- on or subsequent to the date the business combination is approved by the board of directors, the business combination is authorized by the affirmative vote of at least 66 2/3% of the voting stock of the corporation at an annual or special meeting of stockholders.

Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or is an affiliate or associate of the corporation and within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock.

The existence of Section 203 of the Delaware General Corporation Law would be expected to have an anti-takeover effect with respect to transactions not approved in advance by our board of directors, including discouraging attempts that might result in a premium over the market price for the shares of our common stock.

*Charter Documents*

Our certificate of incorporation and bylaws include a number of provisions that may have the effect of deterring hostile takeovers or delaying or preventing changes in control or management of our company. First, the Bylaws provide that all stockholder action must be effected at a duly called meeting of stockholders and not by a consent in writing. Further, our bylaws limit who may call special meetings of the stockholders. Our certificate of incorporation does not include a provision for cumulative voting for directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares may be able to ensure the election of one or more directors. Our bylaws provide that the number of directors on our board, which may range from three to nine directors, shall be exclusively fixed by our board, which has set the number of directors at five. Newly created directorships resulting from any increase in our authorized number of directors and any vacancies in our board resulting from death, resignation, retirement, disqualification or other cause (including removal from office by a vote of the shareholders) will be filled by a majority of our board then in office. Finally, our bylaws establish procedures, including advance notice procedures, with regard to the nomination of candidates for election as directors and stockholder proposals. These and other provisions of our certificate of incorporation and bylaws and Delaware law could discourage potential acquisition proposals and could delay or prevent a change in control or management of our company.

## LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon by Wyrick Robbins Yates & Ponton, LLP, Raleigh, North Carolina.

## EXPERTS

The balance sheets of Ventrus Biosciences, Inc. as of December 31, 2010 and 2009 and the related statements of operations, changes in stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2010, and for the period from October 7, 2005 (inception) to December 31, 2010 have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance on the report of EisnerAmper LLP given upon their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC's public reference facilities at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference facilities. SEC filings are also available at the SEC's web site at http://www.sec.gov. Our common stock is listed on the NASDAQ Capital Market, and you can read and inspect our filings at the offices of the National Association of Securities Dealers, Inc. at 1735 K Street, Washington, D.C. 20006.

This base prospectus is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act of 1933, as amended, and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this base prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may inspect a copy of the registration statement, including the exhibits and schedules, without charge, at the public reference room or obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

## INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this base prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933, as amended, with the SEC with respect to the securities being offered pursuant to this base prospectus. This base prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities being offered pursuant to this base prospectus. Statements in this base prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in "Where You Can Find More Information." The documents we are incorporating by reference are (other than any document or portion of a document that is deemed furnished and not filed):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, filed with the SEC on April 13, 2011;
- our Quarterly Report on Form 10-Q for the three-month period ended March 31, 2011 filed with the SEC on May 16, 2011;
- our Quarterly Report on Form 10-Q for the six-month period ended June 30, 2011, filed with the SEC on August 15, 2011;
- our Quarterly Report on Form 10-Q and Form 10-Q/A for the nine-month period ended September 30, 2011 filed with the SEC on November 14 and November 18, 2011, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 7, January 20, January 27, February 1, March 18, May 3, May 25, May 31, June 7, June 22, July 14, July 19, August 25, November 9, November 14, November 14, November 18 and December 21, 2011, and January 9, January 13 and January 20, 2012;
- our definitive proxy solicitation materials filed with the SEC on April 27, 2011;
- the description of our common stock contained in our registration statement on Form 8-A (File No. 001-35005) filed with the SEC on December 10, 2010, including any amendment or report filed for the purpose of updating such description; and
- all of the filings pursuant to the Securities Exchange Act of 1934, as amended, after the date of the filing of the original registration statement and prior to the effectiveness of the registration statement.

In addition, all documents subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this base prospectus (other than any document or portion of a document that is deemed furnished and not filed).

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

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to Ventrus Biosciences, Inc., Attention: David J. Barrett, 99 Hudson Street, 5$^{th}$ Floor, New York, New York 10013, (646) 706-5208.

You should rely only on information contained in, or incorporated by reference into, this base prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this base prospectus or incorporated by reference in this base prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

# Shares


**Common Stock**

**PROSPECTUS SUPPLEMENT**

October , 2014

## William Blair

*Sole Placement Agent*