UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K/A
Amendment No. 1

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2014
or
☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Transition Period from _____ to _____

Commission File Number**: 001-35005**

ASSEMBLY BIOSCIENCES, INC.
(Exact name of registrant specified in its charter)

Delaware	**2834**	**20-8729264**
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

99 Hudson Street, 5th Floor, New York, New York 10013
(Address of Principal Executive Offices)

Registrant's telephone number, including area code: **(646) 706-5208**

Securities Registered Pursuant to Section 12(b) of the Exchange Act:

Title of Each Class	**Name of Exchange on which Registered**
Common Stock, $0.001 Par Value	Nasdaq Capital Market

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

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

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☒

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

The aggregate market value of the voting stock held by non-affiliates of the registrant, as of June 30, 2014, was approximately $30.5 million. Such aggregate market value was computed by reference to the closing price of the common stock as reported on the Nasdaq Capital Market on June 30, 2014. For purposes of making this calculation only, the registrant has defined affiliates as including only directors and executive officers and shareholders holding greater than 10% of the voting stock of the registrant as of June 30, 2014.

As of March 10, 2015 there were 10,695,259 shares of the registrant's common stock, $0.001 par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

EXPLANATORY NOTE

Assembly Biosciences, Inc. is filing this Amendment No. 1 to our Annual Report on Form 10-K for the year ended December 31, 2014, filed with the Securities and Exchange Commission on March 12, 2015 (the "Original Filing"), to make the following corrections:

1. This Amendment No. 1 corrects the amount of stock-based compensation for the year ended December 31, 2014 set forth in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations—Comparison of the Years Ended December 31, 2014 and December 31, 2013—Research and Development Expense," from $2,020.000 to $2,020,000.

2. This Amendment No. 1 corrects the research and development expenses for the year ended December 31, 2013 (set forth under Operating Expenses) set forth in the Consolidated Statements of Operations contained in the audited financial statements referenced in "Item 8. Financial Statements and Supplementary Data," and appended to this Amendment from $4,575,701 to $15,029,078, and corrects the general and administrative expenses for the year ended December 31, 2013 (set forth under Operating Expenses) set forth in the Consolidated Statements of Operations contained in the audited financial statements referenced in "Item 8. Financial Statements and Supplementary Data," from $15,029,078 to $4,575,701.

In addition to the corrections above, this Amendment No 1 also restates "Item 15. Exhibits, Financial Statement Schedules" to include a currently dated consent of EisnerAmper LLP, independent registered public accounting firm, which is attached as Exhibit 23.1 to this Amendment No. 1, and currently dated certifications pursuant to Section 302 and Section 906 of the Sarbanes-Oxley Act of 2002, which are attached as Exhibits 31.1, 31.2, 32.1 and 32.2 to this Amendment No. 1.

Except as set forth above, the Original Filing has not been amended, updated or otherwise modified, and does not reflect events occurring after March 12, 2015, the date of the Original Filing, or modify or update those disclosures that may have been affected by subsequent events.

ASSEMBLY BIOSCIENCES, INC.
(formerly Ventrus Biosciences, Inc.)
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References to Assembly Biosciences

Throughout this Annual Report on Form 10-K, the "Company," "Assembly," "we," "us," and "our," except where the context requires otherwise, refer to Assembly Biosciences, Inc. and its consolidated subsidiary, and "our board of directors" refers to the board of directors of Assembly Biosciences, Inc.

Forward Looking Information

This Annual Report on Form 10-K contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Annual Report on Form 10-K, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this Annual Report on Form 10-K include, among other things, statements about:

- the initiation, timing, progress and results of pre-clinical studies and clinical trials, and our research and development programs;
- our plans to develop and commercialize our product candidates;
- our ability to establish and maintain additional collaborations or obtain additional funding;
- the timing or likelihood of regulatory filings and approvals;
- the implementation of our business model, strategic plans for our business, product candidates and technology;
- our commercialization, marketing and manufacturing capabilities and strategy;
- the rate and degree of market acceptance and clinical utility of our products;
- our competitive position;
- our intellectual property position;
- developments and projections relating to our competitors and our industry; and
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Annual Report on Form 10-K, particularly in the "Risk Factors" section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this Annual Report on Form 10-K and the documents that we have filed as exhibits to this Annual Report on Form 10-K completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

PART II

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation

Overview

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes thereto and other financial information appearing elsewhere in this Form 10-K.

We are a biopharmaceutical company committed to developing novel oral therapies for the cure of intractable infectious diseases, focusing on hepatitis B virus (HBV) and C. difficile-associated infections (CDAD). On July 11, 2014, Assembly Biosciences merged with a private company Assembly Pharmaceuticals, Inc., which was founded in 2012. The merger resulted in a shift in strategic focus, the addition of a new lead drug development program for the company, and changes in personnel.

The target of our lead program is a clinical cure for HBV, for which we are developing a series of new compounds, known as core protein allosteric modulators, or CpAMs, with the potential to modulate the HBV core protein—a polyfunctional essential viral protein-—at multiple complementary points in the viral lifecycle.

Our CDAD program is based on the targeted delivery of novel microbiome-based therapies in a proprietary oral formulation, applying our novel coating and encapsulation technology that allows for targeted delivery of complex agents to select regions of the gastrointestinal, or GI, tract. Using this proprietary delivery platform, we aim to deliver several types of beneficial bacteria, in novel "synthetic formats', to the gastrointestinal, or GI, tract.

We currently have administrative offices in New York City and research facilities in San Francisco, California. Research activities for the HBV program are also being conducted at Indiana University at Bloomington, under the aegis of Adam Zlotnick, PhD, Assembly co-founder and head of our HBV Scientific Advisory Board.

Since inception of the parent company, we have had no revenue from product sales, and have funded our operations principally through debt financings prior to our initial public offering in 2010 and through equity financings since then. Our operations to date have been primarily limited to organizing and staffing our company, licensing our product candidates, developing clinical trials for our product candidates, establishing manufacturing for our product candidates, maintaining and improving our patent portfolio and raising capital. We have generated significant losses to date, and we expect to continue to generate losses as we continue to develop our product candidates. As of December 31, 2014, we had an accumulated deficit of $135,512,072. Net cash outflows after the Assembly Merger was approximately $7.5 million.. Because we do not generate revenue from any of our product candidates, our losses will continue as we seek regulatory approval and commercialization of our product candidates. As a result, our operating losses are likely to be substantial over the next several years as we continue the development of our product candidates and thereafter if none is approved or successfully launched. We are unable to predict the extent of any future losses or when we will become profitable, if at all.

Financial Operations Overview

Research and Development Expense

Research and development expenses consist primarily of costs incurred for our research activities, including our drug discovery efforts, target validation, lead optimization and the development of our product candidates, which include:

- employee-related expenses including salaries, benefits, and stock-based compensation expense;
- expenses incurred under agreements with third parties, including contract research organizations, or CROs, that conduct research and development, preclinical and clinical activities on our behalf and the cost of consultants;
- the cost of lab supplies and acquiring, developing, and manufacturing preclinical study materials; and
- facilities, depreciation, and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance, and other operating costs.

Research and development costs are expensed as incurred. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

We use our employee and infrastructure resources across multiple research and development programs, and we allocate internal employee-related and infrastructure costs, as well as certain third party costs, to each of our programs based on the personnel resources allocated to such program. Our research and development expenses, by major program, are outlined in the table below:

	YE 2013	YE 2014
HBV	$ -	$ 2,536,378
Microbiome	$ 358,250	$ 1,559,136
Diltiazem	$ 14,560,539	$ 3,913,887
Iferanserin	$ (585,347)	$ -
Stock Base Compensation	$ 695,636	$ 2,707,336

Diltiazem and iferanserin were our prior product candidates that we are no longer developing. Since the Assembly merger in July 2014, the HBV and microbiome programs are currently the only focus of our company.

The successful discovery and development of our product candidates is highly uncertain. As such, at this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the remainder of the development of our product candidates. We are also unable to predict when, if ever, material net cash inflows will commence from our product candidates. This is due to the numerous risks and uncertainties associated with developing medicines, including the uncertainty of:

- identifying a lead candidate for each of the HBV and microbiome programs;
- establishing an appropriate safety profile with IND-enabling toxicology studies;
- successful enrollment in, and completion of clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;

- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- launching commercial sales of the products, if and when approved, whether alone or in collaboration with others; and
- a continued acceptable safety profile of the products following approval.

A change in the outcome of any of these variables with respect to the development of any of our product candidates would significantly change the costs and timing associated with the development of that product candidate.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect research and development costs to increase significantly for the foreseeable future as our product candidate development programs progress. However, we do not believe that it is possible at this time to accurately project total program-specific expenses through commercialization. There are numerous factors associated with the successful commercialization of any of our product candidates, including future trial design and various regulatory requirements, many of which cannot be determined with accuracy at this time based on our stage of development. Additionally, future commercial and regulatory factors beyond our control will impact our clinical development programs and plans.

General and administrative expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in executive, finance, accounting, business development, legal and human resources functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters and fees for accounting and consulting services.

We anticipate that our general and administrative expenses will increase in the future to support continued research and development activities, potential commercialization of our product candidates and increased costs of operating as a public company. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, among other expenses. Additionally, we anticipate increased costs associated with being a public company including expenses related to services associated with maintaining compliance with exchange listing and SEC requirements, insurance, and investor relations costs.

Interest income

Interest income consists of interest earned on our cash and cash equivalents and available-for-sale securities.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which we have prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting periods. On an ongoing basis, we evaluate our estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our financial condition and results of operations.

Goodwill and Other Intangible Assets

Goodwill is the excess of purchase price over the fair value of identified net assets of businesses acquired. Our intangible assets with an indefinite life are related to in-process research and development ("IPR&D") programs acquired in the Assembly Merger, as we expect future research and development on these programs to provide us with substantial benefit for a period that extends beyond the foreseeable horizon. Intangible assets with indefinite useful lives are measured at their respective fair values as of the acquisition date. We do not amortize goodwill and intangible assets with indefinite useful lives. Intangible assets related to IPR&D projects are considered to be indefinite lived until the completion or abandonment of the associated R&D efforts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite lived and would then be amortized based on their respective estimated useful lives at that point in time.

We review goodwill and indefinite-lived intangible assets at least annually for possible impairment. Goodwill and indefinite-lived intangible assets are reviewed for possible impairment between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of the reporting unit or the indefinite-lived intangible assets below their carrying values. We test goodwill and indefinite-lived intangible assets each year on December 31. We review the carrying value of goodwill and indefinite-lived intangible assets utilizing a discounted cash flow model, and, where appropriate, a market value approach is also utilized to supplement the discounted cash flow model. We make assumptions regarding estimated future cash flows, discount rates, long-term growth rates and market values to determine each reporting unit's estimated fair value

Accrued research and development expenses

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued expenses. This process involves reviewing quotations and contracts, identifying services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include fees paid to CROs in connection with research and development activities for which we have not yet been invoiced.

We base our expenses related to CROs on our estimates of the services received and efforts expended pursuant to quotes and contracts with CROs that conduct research and development on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and could result in us reporting amounts that are too high or too low in any particular period.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements as well as the reported revenue, if any, and expenses during the reporting periods. On an ongoing basis, management evaluates their estimates and judgments. Management bases estimates on historical experience and on various other factors that they believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results might differ from these estimates under different assumptions or conditions. The Company's significant estimates and assumptions include the initial fair value, recoverability and useful lives of intangible assets, including goodwill and the grant date fair value of stock-based compensation.

Stock-Based Compensation

We apply the fair value recognition provisions of Financial Accounting Standards Board Accounting Standards Codification Topic 718, *Compensation-Stock Compensation*, which we refer to as ASC 718, to account for stock-based compensation. We recognize stock-based compensation expense related to stock options granted to employees and directors for their services on the Board of Directors based on the estimated fair value of each stock option on the date of grant, net of estimated forfeitures, using the Black-Scholes option-pricing model. The grant date fair value of awards subject to service-based vesting, net of estimated forfeitures, is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective awards. In accordance with the ASC 718, stock options subject to both performance- and service-based vesting conditions are recognized using an accelerated recognition model if achievement of the performance requirements is considered to be probable.

We account for stock options granted to non-employees, which primarily consist of consultants and members of our scientific advisory board, using the fair value method. Stock options granted to non-employees are subject to periodic revaluation over their vesting terms and stock-based compensation expense is recognized using an accelerated recognition model.

We use the Black-Scholes option pricing model to estimate the fair value of stock option awards using various assumptions that require management to apply judgment and make estimates, including:

- the expected term of the stock option award, which we calculate using the simplified method, as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, as we have insufficient historical information regarding our stock options to provide a basis for an estimate;

- the expected volatility of the underlying common stock, which we estimate based on the historical volatility of a representative group of publicly traded biopharmaceutical companies with similar characteristics to us, including development candidates in earlier stages of drug development and areas of therapeutic focus;

- the risk-free interest rate, which we based on the yield curve of U.S. Treasury securities with periods commensurate with the expected term of the options being valued;

- the expected dividend yield, which we estimate to be zero based on the fact that we have never paid cash dividends and have no present intention to pay cash dividends; and

- the fair value of our common stock on the date of grant.

If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future.

In addition to the assumptions used in our Black-Scholes option-pricing model, the amount of stock option expense we recognize in our consolidated statements of operations includes an estimate of stock option forfeitures. Under ASC 718, we are required to estimate the level of forfeitures expected to occur and record compensation expense only for those awards that we ultimately expect will vest. Due to the lack of historical forfeiture activity, we expect to estimate our forfeiture rate based on data from our representative group of companies. Changes in the estimated forfeiture rate can have a significant impact on our stock-based compensation expense as the cumulative effect of adjusting the rate is recognized in the period the forfeiture estimate is changed. For example, if a revised forfeiture rate is higher than the previously estimated forfeiture rate, an adjustment is made that will result in a decrease to the stock-based compensation expense recognized in the consolidated financial statements. If a revised forfeiture rate is lower than the previously estimated forfeiture rate, an adjustment is made that will result in an increase to the stock-based compensation expense recognized in our consolidated financial statements. To date our forfeitures have not been material.

Off-Balance Sheet Arrangements

Since our inception, we have not engaged in any off-balance sheet arrangements, including the use of structured finance, special purpose entities or variable interest entities.

Contractual Obligations

The following table summarizes our future contractual obligations and commercial commitments at December 31, 2014.

	Less than 1 year	1-2 years
Indiana University	$ 169,136	$ -
Regus (office lease)	$ 67,200	$ -
Total contractual obligations	$ 236,336	$ -

Milestone and royalty payments associated with certain agreements have not been included in the above table of contractual obligations as we cannot reasonably estimate if or when they will occur. At this time, no milestone payments, other than the milestone payments included in the table of contractual obligations, are probable of occurrence.

Results of Operations

General

To date, we have not generated any revenues from operations and, at December 31, 2014, we had an accumulated deficit of approximately $136 million primarily as a result of research and development expenses, purchases of in-process research and development and general and administrative expenses. While we may in the future generate revenue from a variety of sources, including license fees, milestone payments, research and development payments in connection with strategic partnerships and/or product sales, our product candidates are at an early stage of development and may never be successfully developed or commercialized. Accordingly, we expect to continue to incur substantial losses from operations for the foreseeable future and there can be no assurance that we will ever generate significant revenues.

Comparison of the Years Ended December 31, 2014 and December 31, 2013

Research and Development Expense

Research and development expense was $10,716,737 for the year ended December 2014, a decrease of $4,312,341 or 28.7% from $15,029,078 for the same period in 2013. The reason for the net decrease in research and development expenses is due to the winding down of our Diltiazem program which resulted in a $9,987,000 reduction of costs in 2014, offset by increases in expenses related to the Microbiome program of approximately $1,560,000, increases in expenses related to the HBV program of approximately $2,536,000 and additional stock-based compensation of $2,020,000 due to new options granted to all employees.

General and Administrative Expense

General and administrative expense was $13,239,715 for the year ended December 2014, an increase of $8,664,014 or 189.3% from $4,575,701 for the same period in 2013. The primary reason was an increase of stock-based compensation expense of approximately $6,913,000 due to new stock options granted to employees and consultants, warrant expenses of $680,000, merger expenses of $471,000, accounting fees $78,000, sign on bonus and senior management bonuses of $559,000, D & O insurance of $55,000; offset by a decrease of $91,000 for consulting.

Interest Expense and Income

There was no interest expense in 2014 or 2013. Interest income was $167,653 for the year ended 2014 compared to $201,020 for the same period in 2013.

Liquidity and Capital Resources

As a result of our significant research and development expenditures and the lack of any FDA-approved products to generate product sales revenue, we have not been profitable and have generated operating losses since we were incorporated in October 2005. We have funded our operations through December 31, 2014 principally with debt prior to our initial public offering, and thereafter with equity financing, raising an aggregate of $111.5 million in net proceeds from public offerings and private placements from inception to December 31, 2014.

In January 2014, we sold an aggregate of 92,472 shares of common stock under the amended at-the-market common equity sales program, resulting in net proceeds of approximately $1,763,000.

On October 6, 2014, we sold to various institutional investors an aggregate of 1,959,000 shares of common stock in a registered direct offering. The purchase price paid by the investors was $8.04 per share and an aggregate of approximately $14,963,000 in net proceeds were received. In connection with the offering, the Company entered into a placement agent agreement with William Blair & Company, L.L.C., who acted as sole placement agent in the offering, and pursuant to which the Company paid a placement agent fee equal to 5.0% of the gross proceeds of the offering.

Cash Flows for the Three Years Ended December 31, 2014 and 2013

	For the Year Ended December 31,	
(In thousands)	**2014**	**2013**
Statement of Cash Flows Data:		
Total cash (used in)/provided by:		
Operating activities	$ (14,974)	$ (17,796)
Investing activities	277	(6)
Financing activities	16,726	24,375
Net increase in cash and cash equivalents	$ 2,029	$ 6,573

Net Cash Used in Operating Activities

Net cash used in operating activities was $14,973,502 for the year ended December 31, 2014 and funded our research and development program build out and general and administrative expenses. The net loss of $23,788,799 for the year ended December 31, 2014 was greater than cash used in operating activities by $8,815,297. The primary reason for the difference is attributed to a stock-based compensation charge of $10,637,494.

Net Cash Provided by Investing Activities

Net cash provided by investing activities was $277,401 for the year ended December 31, 2014.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was $16,725,946 for the year ended December 31, 2014. Net cash provided by financing activities during the year ended December 31, 2014 consisted of the sale of 2,051,472 shares of common stock for proceeds of $16,725,946.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research, development and clinical trials of our product candidates. Furthermore, we expect to continue to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

We monitor our cash needs and the status of the capital markets on a continuous basis. From time to time, we opportunistically raise capital and have done so numerous times since our initial public offering by issuing equity securities, most recently in October 2014. We expect to continue to raise capital when and as needed and at the time and in the manner most advantageous to the company.

We expect that our existing cash, cash equivalents and marketable securities, will enable us to fund our operating expenses and capital expenditure requirements until at least the second quarter of 2016. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of drug discovery, preclinical development, laboratory testing and future clinical trials for our product candidates;
- the extent to which we acquire or in-license other medicines and technologies;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims; and
- our ability to establish collaborations on favorable terms, if at all.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of medicines that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise funds through additional collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The ASU provides for a single comprehensive model for use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance. The accounting standard is effective for interim and annual periods beginning after December 15, 2016 with no early adoption permitted. We are currently in the process of evaluating the impact of the guidance on our financial position, results of operation, and cash flows.

In June 2014, the FASB issued ASU 2014-10, *Development Stage Entities (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation*. The amendments in this update remove the definition of a development stage entity from the Master Glossary of the Accounting Standards Codification, thereby removing the financial reporting distinction between development stage entities and other reporting entities from GAAP. In addition, the amendments eliminate the requirements for development stage entities to (1) present inception-to-date information in the statements of income, cash flows and shareholder equity, (2) label the financial statements as those of a development stage entity, (3) disclose a description of the development stage activities in which the entity is engaged, and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. A public entity is required to apply the amendments for annual reporting periods beginning after December 15, 2014, and interim periods therein. An entity should apply the amendments retrospectively for all comparative periods presented. Early adoption is permitted. We adopted this guidance in the second quarter of 2014. Adoption of this standard did not have a material impact on our financial position, statement of operations, or statement of cash flows.

In June 2014, the FASB issued ASU 2014-12, *Compensation-Stock Compensation (Topic 718)*. The ASU clarifies how entities should treat performance targets that can be achieved after the requisite service period of a share-based payment award. The accounting standard is effective for interim and annual periods beginning after December 15, 2015. We are currently in the process of evaluating the impact of the guidance on our financial position, results of operation, and cash flows.

The FASB has issued ASU 2014-15, *Presentation of Financial Statements-Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern.* The guidance, which is effective for annual reporting periods ending after December 15, 2016, with early adoption permitted, extends the responsibility for performing the going-concern assessment to management and contains guidance on how to perform a going-concern assessment and when going-concern disclosures would be required under GAAP. We are currently evaluating the impact of this ASU on our consolidated financial statements.

Cautionary Statement

We operate in a highly competitive environment that involves a number of risks, some of which are beyond our control. The following statement highlights some of these risks. For more detail, see "Item 1A. Risk Factors".

Statements contained in this Form 10-K that are not historical facts, are or might constitute forward-looking statements under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Although we believe the expectations reflected in such forward-looking statements are based on reasonable assumptions, our expectations might not be attained. Forward-looking statements involve known and unknown risks that could cause actual results to differ materially from expected results. Factors that could cause actual results to differ materially from our expectations expressed in the report include, among others: risks related to the costs, timing, regulatory review and results of our studies and clinical trials; our ability to obtain FDA approval of our product candidates; 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; our ability to sell any approved products and the price we are able realize; our ability to obtain future funding on acceptable terms; 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; the future trading prices of our common stock and the impact of securities analysts' reports on these prices; and the risks set out in our filings with the SEC.

Item 8. Financial Statements and Supplementary Data

The financial statements required to be filed pursuant to this Item 8 are appended to this report. An index of those financial statements is found on page F-1.

PART III

Item 15. Exhibits, Financial Statement Schedules

(a) *Exhibits.* The following exhibits are filed as part of this registration statement:

Exhibit Number	Description of Document	Registrant's Form	Dated	Exhibit No.	Filed Herewith
1.3	Controlled Equity Offering Sales Agreement, dated January 30, 2012 between Ventrus Biosciences, Inc. and Cantor Fitzgerald & Co.	S-3	01/31/2012	1.2	
1.4	Underwriting Agreement, dated January 30, 2013, by and Ventrus Biosciences, Inc. and William Blair & Company, LLC.	8-K	01/30/2013	1.5	
1.5	Underwriting Agreement, dated January 30, 2013, by and Ventrus Biosciences, Inc. and William Blair & Company, LLC.	8-K	01/30/2013	1.6	
1.6	Amendment No. 1, dated September 13, 2013, to Sales Agreement, dated January 20, 2012, between Ventrus Biosciences, Inc. and Cantor Fitzgerald & Co.	8-K	09/13/2013	1.7	
3.1	Amended and Restated Certificate of Incorporation dated November 11, 2010.	S-1/A	11/16/2010	3.1	
3.2	Amended and Restated Bylaws dated July 12, 2010.	S-1	07/20/2010	3.2	
3.3	Certificate of Designation of Series A Non-Voting Convertible Preferred Stock of Ventrus Biosciences, Inc. filed on January 30, 2013.	8-K	01/30/2013	4.14	
4.1	Specimen of Common Stock Certificate.	S-1/A	10/29/2010	4.1	
4.2	Form of Warrant issued to investors between June and September 2008.	S-1	07/20/2010	4.3	
4.5	Warrants issued to Paramount Credit Partners, LLC on January 23, March 25, June 1 and June 24, 2009.	S-1/A	10/04/2010	4.5	
4.8	Form of Warrant issued to investors in February and March, 2010.	S-1/A	10/04/2010	4.8	
4.9	Form of Warrant issued to investors in May 2010.	S-1/A	10/04/2010	4.9	
4.10	Form of Placement Agent Warrant issued to Paramount BioCapital, Inc. on March 11, 2008.	S-1	07/20/2010	4.10	

Exhibit Number	Description of Document	Registrant's Form	Dated	Exhibit No.	Filed Herewith
4.11	Placement Agent Warrants issued to National Securities Corporation on February 26, March 31 and May 6, 2010, as amended October 28, 2010 and November 30, 2010.	S-1/A	12/06/2010	4.11	
4.12	Warrant issued to S.L.A. Pharma AG on August 30, 2010.	S-1/A	10/04/2010	4.12	
4.13	Form of underwriters warrant dated December 22, 2010.	S-1/A	12/06/2010	4.13	
10.1*	Exclusive License Agreement dated March 23, 2007 by and between S.L.A. Pharma AG and Paramount Biosciences, LLC, as amended on July 24, 2008, November 20, 2008, June 1, 2009, December 18, 2009 and June 24, 2010 and letter agreements dated October 27, 2008, November 20, 2008 and January 22, 2009.	S-1/A	11/16/2010	10.1	
10.2	Assignment and Assumption Agreement dated August 2, 2007, by and between Paramount Biosciences LLC and Ventrus Biosciences, Inc.	S-1	07/20/2010	10.2	
10.5	Amended and Restated Employment Agreement dated July 19, 2010 by and between Russell H. Ellison and Ventrus Biosciences, Inc.	8-K	07/20/2010	10.5	
10.10	Amendment No. 6, dated August 30, 2010, to Exclusive License Agreement by and between S.L.A. Pharma AG and Paramount Biosciences, LLC (assigned to Ventrus Biosciences).	S-1/A	10/04/2010	10.10	
10.12	Employment Agreement dated November 11, 2010 by and between David J. Barrett and Ventrus Biosciences, Inc.	S-1/A	11/15/2010	10.12	
10.16	Amendment No. 7, dated June 6, 2011, to Exclusive License Agreement by and between S.L.A. Pharma AG and Paramount Biosciences, LLC (assigned to Ventrus Biosciences).	S-1	06/06/2011	10.16	
10.20	Employment Agreement dated January 15, 2014 and effective December 22, 2013, by and between Ventrus Biosciences, Inc. and Dr. Russell H. Ellison.	8-K	01/16/2014	10.20	
10.21	Employment Agreement dated January 15, 2014 and effective December 22, 2013, by and between Ventrus Biosciences, Inc. and David J. Barrett.	8-K	01/16/2014	10.21	
10.22*	License and Collaboration Agreement dated November 8, 2013, by and between Ventrus Biosciences, Inc. and Therabiome, LLC.	10-K	03/31/2014	10.22	
10.23	Amendment dated July 11, 2014, to Employment Agreement, effective as of December 22, 2013 between Ventrus Biosciences, Inc. and Russell H. Ellison.	8-K	07/14/2014	10.23	
10.24	Employment Agreement, dated July 11, 2014, between Ventrus Biosciences, Inc. and Derek A. Small.	8-K	07/14/2014	10.24	
10.25	Employment Agreement, dated July 11, 2014, between Ventrus Biosciences, Inc. and Uri A. Lopatin.	8-K	07/14/2014	10.25	
10.26	Employment Agreement, dated July 11, 2014, between Ventrus Biosciences, Inc. and Lee D. Arnold	8-K	07/14/2014	10.26	

Exhibit Number	Description of Document	Registrant's Form	Dated	Exhibit No.	Filed Herewith
10.27*	Exclusive License Agreement with Indiana University Research and Technology Corporation	10-Q	11/17/2014	10.29	
21.1	List of Subsidiaries of Assembly Biosciences, Inc.	10-K	3/12/2015	21.1	
23.1	Consent of EisnerAmper LLP, Independent Registered Public Accounting Firm.				X
31.1	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
31.2	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
32.1	Certification of the Chief Executive Officer Pursuant to 18 U.S. C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2	Certification of the Chief Financial Officer Pursuant to 18 U.S. C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
101.INS	XBRL Instance Document.				
101.SCH	XBRL Taxonomy Extension Schema Document.				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.				
101.DEF	XBRL Taxonomy Extension Definitions Linkbase Document.				

*Certain information in this exhibit has been omitted and filed separately with the Securities and Exchange Commission pursuant to a confidential treatment request.

SIGNATURES

In accordance with Section 13 or 15(d) of the Securities Exchange Act, the Registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ASSEMBLY BIOSCIENCES, INC.

Date: March 16, 2015

By: /s/ Derek Small
Name: Derek Small
Title: President and Chief Executive Officer

ASSEMBLY BIOSCIENCES, INC.
(formerly Ventrus Biosciences, Inc.)
FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
Assembly Biosciences, Inc.

We have audited the accompanying consolidated balance sheets of Assembly Biosciences, Inc. and subsidiary (the "Company") (formerly Ventrus Biosciences, Inc.) as of December 31, 2014 and 2013, and the related consolidated statements of operations, changes in stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2014. The financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Assembly Biosciences, Inc. and subsidiary as of December 31, 2014 and 2013, and the consolidated results of their operations and their cash flows for each of the years in the two-year period ended December 31, 2014, in conformity with accounting principles generally accepted in the United States of America.

/s/ EisnerAmper LLP

New York, New York
March 12, 2015

ASSEMBLY BIOSCIENCES, INC. AND SUBSIDIARY
(formerly Ventrus Biosciences, Inc.)

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2014	**2013**
ASSETS		
Current assets		
Cash	$ 29,091,113	$ 27,061,268
Other current assets	125,284	63,672
Total current assets	29,216,397	27,124,940
Property, plant and equipment, net	156,441	7,102
Security deposits	115,005	-
Intangible assets	29,000,000	-
Goodwill	12,737,350	-
Total assets	**$ 71,225,193**	**$ 27,132,042**
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities		
Accounts payable	$ 907,601	$ 2,614,619
Accrued expenses	146,420	23,435
Total current liabilities	1,054,021	2,638,054
Deferred tax liabilities	11,600,000	-
Total liabilities	**12,654,021**	**2,638,054**
Stockholders' equity		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; Series A non-voting convertible preferred stock: 0 and 44,000 issued and outstanding at December 31, 2014 and December 31, 2013, respectively	-	44
Common stock, $0.001 par value; 50,000,000 shares authorized; 10,672,059 shares and 4,146,779 shares issued, and outstanding at December 31, 2014 and December 31, 2013, respectively	10,672	4,147
Additional paid-in capital	194,072,572	135,844,320
Common stock issuable, 0 and 125,000 shares at December 31, 2014 and December 31, 2013	-	368,750
Accumulated deficit	(135,512,072)	(111,723,273)
Total stockholders' equity	58,571,172	24,493,988
Total liabilities and stockholders' equity	**$ 71,225,193**	**$ 27,132,042**

The accompanying notes are an integral part of these consolidated financial statements

ASSEMBLY BIOSCIENCES, INC. AND SUBSIDIARY
(formerly Ventrus Biosciences, Inc.)

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ened December 31,	
	2014	**2013**
Operating expenses:		
Research and development	$ 10,716,737	$ 15,029,078
General and administrative	13,239,715	4,575,701
Total operating costs and expenses	23,956,452	19,604,779
Loss from operations	**(23,956,452)**	**(19,604,779)**
Other income		
Interest income	167,653	201,020
Total other income	167,653	201,020
Net loss	**$ (23,788,799)**	**$ (19,403,759)**
Net loss per share, basic and diluted	$ (3.40)	$ (5.00)
Weighted average common shares outstanding, basic and diluted	6,998,875	3,878,697

The accompanying notes are an integral part of these consolidated financial statements

ASSEMBLY BIOSCIENCES, INC. AND SUBSIDIARY
(formerly Ventrus Biosciences, Inc.)

CONSOLDATED STATEMENTS OF CHANGE IN STOCKHOLDERS' EQUITY

	Common Stock		Preferred Stock		Additional	Common Stock	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Paid-in Capital	Issuable	Deficit	Equity
Balance as of December 31, 2012	**2,586,870**	**$ 2,587**	**-**	**$ -**	**$ 110,127,113**	**$ -**	**$ (92,319,514)**	**$ 17,810,186**
Proceeds from common stock sold, net of costs	1,559,909	1,560	-	-	19,203,054	-	-	19,204,614
Proceeds from preferred stock sold, net of costs	-	-	44,000	44	5,169,956	-	-	5,170,000
Restricted stock granted to four employees	-	-	-	-	-	368,750	-	368,750
Stock-based compensation	-	-	-	-	1,344,197	-	-	1,344,197
Net loss	-	-	-	-	-	-	(19,403,759)	(19,403,759)
Balance as of December 31, 2013	**4,146,779**	**$ 4,147**	**44,000**	**$ 44**	**$ 135,844,320**	**$ 368,750**	**$ (111,723,273)**	**24,493,988**
Proceeds from common stock sold, net of costs	2,051,472	2,051	-	-	16,723,895	-	-	16,725,946
Issuance of common stock for business combination	4,008,808	4,009	-	-	29,060,139	-	-	29,064,148
Issuance of common stock in exchange for restricted stock units	25,000	25	-	-	368,725	(368,750)	-	-
Conversion of preferred stock to common stock	440,000	440	(44,000)	(44)	(396)	-	-	-
Fair value of options assumed	-	-	-	-	758,948	-	-	758,948
Issuance of warrants for services	-	-	-	-	679,447	-	-	679,447
Stock-based compensation	-	-	-	-	10,637,494	-	-	10,637,494
Net loss	-	-	-	-	-	-	(23,788,799)	(23,788,799)
Balance as of December 31, 2014	**10,672,059**	**$ 10,672**	**-**	**$ -**	**$ 194,072,572**	**$ -**	**$ (135,512,072)**	**$ 58,571,172**

The accompanying notes are an integral part of these consolidated financial statements

ASSEMBLY BIOSCIENCES, INC. AND SUBSIDIARY
(formerly Ventrus Biosciences, Inc.)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended Decmber 31,	
	2014	**2013**
Cash flows from operating activities		
Net loss	$ (23,788,799)	$ (19,403,759)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	10,974	6,216
Stock-based compensation	10,637,494	1,712,947
Issuance of warrants for services	679,447	-
Changes in assets and liabilities:		
Other current assets	(54,472)	(4,088)
Accounts payable	(2,481,917)	767,374
Accrued expenses	23,771	(874,778)
Net cash used in operating activities	(14,973,502)	(17,796,088)
Cash flows from investing activities		
Purchase of fixed assets	(149,963)	(6,477)
Security deposits collected	(81,999)	-
Cash acquired in business combination	509,363	-
Net cash provided by (used in) investing activities	277,401	(6,477)
Cash flows from financing activities		
Proceeds from issuance of common stock, net of cost	16,725,946	24,374,614
Net cash provided by financing activities	16,725,946	24,374,614
Net increase in cash	2,029,845	6,572,049
Cash at the beginning of the period	27,061,268	20,489,219
Cash at the end of the period	**$ 29,091,113**	**$ 27,061,268**
Supplemental schedule of non-cash financing activities		
Assembly business combination		
Other current assets	$ (23,540)	$ -
Equipment, net	(10,350)	-
Intangible assets	(29,000,000)	-
Goodwill	(12,737,350)	-
Security deposits	(16,606)	-
Accounts payable and accrued expenses	874,113	-
Share exchange - business combination	29,064,148	-
Fair value of vested options and restricted stock units assumed - in connection with business combination	758,948	-
Deferred tax liability	11,600,000	-
Cash acquired in business combination	$ 509,363	$ -
Issuance of common stock in exchange for restricted stock units	368,750	-
Conversion of preferred stock to common stock	440	-

The accompanying notes are an integral part of these consolidated financial statements

Note 1 – Nature of Business

Organization and business and basis of presentation

Assembly Biosciences, Inc. ("Assembly" or the "Company") (formerly known as Ventrus Biosciences, Inc.) a biopharmaceutical company committed to developing novel oral therapies for the cure of intractable infectious diseases, focusing on hepatitis B virus (HBV) and C. difficile-associated infections (CDAD).

On July 11, 2014, the Company's wholly-owned subsidiary merged with and into Assembly Pharmaceuticals, Inc. (the "Assembly Merger"), with Assembly Pharmaceuticals, Inc. ("Assembly Pharmaceuticals") as the surviving entity. In connection with the Assembly Merger, on July 11, 2014, the Company changed its name from Ventrus Biosciences, Inc. to Assembly Biosciences, Inc.

The target of the Company's lead program is a clinical cure for HBV, for which the Company is developing a series of new compounds, known as core protein allosteric modulators, or CpAMs, with the potential to modulate the HBV core protein—a polyfunctional essential viral protein-—at multiple complementary points in the viral lifecycle.

The Company's CDAD program is based on the targeted delivery of novel microbiome-based therapies in a proprietary oral formulation, applying the company's novel coating and encapsulation technology that allows for targeted delivery of complex agents to select regions of the gastrointestinal, or GI, tract. Using this proprietary delivery platform, the Company aims to deliver several types of beneficial bacteria, in novel "synthetic formats', to the GI tract.

The Company's consolidated financial statements include the Company's accounts and the accounts of the Company's wholly-owned subsidiary, Assembly Pharmaceuticals, from the date of Assembly Merger. All intercompany transactions have been eliminated in consolidation. The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP").

The Company's Board of Directors and stockholders approved a 1-for-5 reverse stock split of the Company's common stock. The reverse stock split became effective on July 11, 2014. All share and per share amounts in the consolidated financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to this reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital.

Capital resources

The Company has not derived any revenue from product sales to date as the products have not been approved for sale by the FDA or any foreign regulatory agency. Since inception, the Company's operations have been financed primarily through the sale of equity securities, the proceeds from the exercise of warrants and stock options and issuance of debt. The Company has incurred losses from operations and negative cash flows since inception and expects to continue to incur substantial losses for the next several years as it continues its product development efforts. Management believes the Company currently has sufficient funds to meet its operating requirements for the next twelve months. If the Company cannot generate significant cash from its operations, it intends to obtain any additional funding it requires through strategic relationships, public or private equity or debt financings, or other arrangements and it cannot assure such funding will be available on reasonable terms, or at all.

Note 2 - Summary of Significant Accounting Policies and Recent Accounting Pronouncements

Cash and cash equivalents

All highly liquid investments with maturities of three months or less at the time of purchase are considered to be cash equivalents. All of the Company's cash equivalents have liquid markets and high credit ratings. The Company maintains its cash in bank deposit and other accounts, the balances of which, at times and at December 31, 2014, exceed federally insured limits.

Goodwill and Other Intangible Assets

Goodwill is the excess of purchase price over the fair value of identified net assets of businesses acquired. The Company's intangible assets with an indefinite life are related to in-process research and development ("IPR&D") programs acquired in the Assembly Merger, as the Company expects future research and development on these programs to provide the Company with substantial benefit for a period that extends beyond the foreseeable horizon. Intangible assets with indefinite useful lives are measured at their respective fair values as of the acquisition date. The Company does not amortize goodwill and intangible assets with indefinite useful lives. Intangible assets related to IPR&D projects are considered to be indefinite lived until the completion or abandonment of the associated R&D efforts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite lived and would then be amortized based on their respective estimated useful lives at that point in time.

The Company reviews goodwill and indefinite-lived intangible assets at least annually for possible impairment. Goodwill and indefinite-lived intangible assets are reviewed for possible impairment between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of the reporting unit or the indefinite-lived intangible assets below their carrying values. The Company tests its goodwill and indefinite-lived intangible assets each year on December 31. The Company reviews the carrying value of goodwill and indefinite-lived intangible assets utilizing a discounted cash flow model, and, where appropriate, a market value approach is also utilized to supplement the discounted cash flow model. The Company makes assumptions regarding estimated future cash flows, discount rates, long-term growth rates and market values to determine each reporting unit's estimated fair value

Impairment of Long-lived Assets

The Company monitors the carrying value of long-lived assets for potential impairment and tests the recoverability of such assets whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. If a change in circumstance occurs, the Company performs a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. If cash flows cannot be separately and independently identified for a single asset, the Company will determine whether impairment has occurred for the group of assets for which the Company can identify the projected cash flows. If the carrying values are in excess of undiscounted expected future cash flows, the Company measures any impairment by comparing the fair value of the asset or asset group to its carrying value. The Company deemed there was no impairment of long-lived assets during the years ended December 31, 2014 and 2013.

Business Combinations

The Assembly Merger (see Note 3) was made at a price above the fair value of the assets acquired and liabilities assumed including deferred tax liability, resulting in goodwill, based on the Company's expectations of synergies and other benefits of combining the acquired business. These synergies and benefits include elimination of redundant functions and staffing and use of the Company's existing infrastructure to expand development of the product candidates of the acquired business in a cost efficient manner.

Significant judgment is required in estimating the fair value of intangible assets and in assigning their respective useful lives. The fair value estimates are based on available historical information and on future expectations and assumptions deemed reasonable by management, but which are inherently uncertain.

Net assets acquired are recorded at their fair values on the date of acquisition.

Property and Equipment

Property and equipment are stated at cost and consist of lab equipment and computer hardware and software. The Company computes depreciation under the straight-line method over the following estimated useful life of the related assets:

- Lab equipment 3 to 5 years
- Computer hardware and software 3 to 5 years

Stock-based Compensation

The Company's share-based compensation cost is measured at grant date, using the Black-Scholes option pricing model to estimate the fair value of stock option, and is recognized as expense over the employee's or director's requisite service period on a straight-line basis. The Company accounts for stock options granted to non-employees on a fair value basis which is estimated using the Black-Scholes option pricing model. The initial non-cash charge to operations for non-employee options and warrants with vesting are revalued at the end of each reporting period until vested and recognized as consulting expense over the related vesting period.

On April 5, 2013, the Company granted restricted stock units to four employees under the 2010 Plan for an aggregate of 100,000 shares of common stock. Of these units, 25% vested immediately at the grant date. The Company valued the restricted stock grant, 75% of which vests in three equal installments when the 20-day trading volume weighted average price of the Company's common stock is at least $20.75, $25.75 and $30.75, using the Monte Carlo simulation model. The unvested 75% of the units were forfeited on July 10, 2014 and the holders received options.

Warrants

For the purpose of valuing the warrants (See Note 6), the Company used the Black-Scholes option pricing model utilizing the following assumptions: Volatility - 97.3%, risk free interest rate – 1.66%, term – 5 year, exercise price - $5.13, dividends – n/a. To determine the risk-free interest rate, the Company utilized the U.S. Treasury yield curve in effect at the time of grant with a term consistent with the expected term of the Company's awards. The Company estimated the expected life of the warrants based on the full term of the warrant. The expected dividend yield reflects the Company's current and expected future policy for dividends on its common stock. The expected stock price volatility for the Company's stock was calculated by examining historical volatilities for publicly traded industry peers as the Company did not have any trading history for its common stock at the time the grants were issued.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development costs include salaries and personnel-related costs, consulting fees, fees paid for contract research services, fees paid to clinical research organizations and other third parties associated with clinical trials, the costs of laboratory equipment and facilities, and other external costs.

Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

Income taxes

The Company's income tax expense consists of current and deferred income tax expense or benefit. Current income tax expense or benefit is the amount of income taxes expected to be payable or refundable for the current year. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established when it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company had adopted the provisions that tax positions must meet a "more-likely-than-not" recognition threshold to be recognized. The Company has no unrecognized tax benefits recorded for the years ended December 31, 2014 and 2013. When an accrual for interest and penalties is required, interest and penalties will be recognized in tax expense. The Company files income tax returns in the U.S. federal jurisdiction and in various states. There are currently no federal income tax examinations in process. The 2010 through 2014 tax years remain subject to examination by the Internal Revenue Service and other taxing authorities for U.S. federal and state/local tax purposes. The Company does, however, have prior year net operating losses dating back to 2007, which are subject to examination.

Loss per common share

Basic net loss per common share excludes dilution and is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted net loss per common share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shared in the earnings of the entity unless inclusion of such shares would be anti-dilutive. Since the Company has only incurred losses, basic and diluted net loss per share is the same. Securities that could potentially dilute loss per share in the future that was not included in the computation of diluted loss per share at December 31, 2014 and 2013 are as follows:

	As of December 31,	
	2014	**2013**
Convertible preferred stock	-	44,000
Non-vested restricted stock units	-	75,000
Warrants to purchase common stock	270,761	172,209
Options to purchase common stock	3,249,651	467,698
Total	**3,520,412**	**758,907**

Use of estimates

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

Significant estimates inherent in the preparation of the accompanying financial statements include recoverability and useful lives of long-lived assets, the valuation allowance related to the Company's deferred tax assets and the fair value of stock options and warrants granted to employees, consultants, directors, investors, licensors, placement agents and underwriters.

Certain of the Company's estimates, including the carrying amount of the intangible assets, could be affected by external conditions, including those unique to the Company and general economic conditions. It is reasonably possible that these external factors could have an effect on the Company's estimates and could cause actual results to differ from those estimates and assumptions.

Concentrations of Credit Risk

Financial instruments which potentially subject the Company to credit risk consist primarily of cash, cash equivalents and marketable securities. The Company holds these investments in highly rated financial institutions, and, by policy, limits the amounts of credit exposure to any one financial institution. These amounts at times may exceed federally insured limits. The Company has not experienced any credit losses in such accounts and does not believe it is exposed to any significant credit risk on these funds. The Company has no off-balance sheet concentrations of credit risk, such as foreign currency exchange contracts, option contracts or other hedging arrangements.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The ASU provides for a single comprehensive model for use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance. The accounting standard is effective for interim and annual periods beginning after December 15, 2016 with no early adoption permitted.

In June 2014, the FASB issued ASU 2014-10, *Development Stage Entities (Topic 915) — Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation.* The amendments in this update remove the definition of a development stage entity from the Master Glossary of the Accounting Standards Codification, thereby removing the financial reporting distinction between development stage entities and other reporting entities from GAAP. In addition, the amendments eliminate the requirements for development stage entities to (1) present inception-to-date information in the statements of income, cash flows and shareholder equity, (2) label the financial statements as those of a development stage entity, (3) disclose a description of the development stage activities in which the entity is engaged, and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. A public entity is required to apply the amendments for annual reporting periods beginning after December 15, 2014, and interim periods therein. An entity should apply the amendments retrospectively for all comparative periods presented. Early adoption is permitted. The guidance was adopted by the Company in the second quarter of 2014. Adoption of this standard did not have a material impact on the Company's financial position, statement of operations, or statement of cash flows.

In June 2014, the FASB issued ASU 2014-12, *Compensation-Stock Compensation (Topic 718)*. The ASU clarifies how entities should treat performance targets that can be achieved after the requisite service period of a share-based payment award. The accounting standard is effective for interim and annual periods beginning after December 15, 2015.

The FASB has issued ASU 2014-15, *Presentation of Financial Statements-Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern.* The guidance, which is effective for annual reporting periods ending after December 15, 2016, with early adoption permitted, extends the responsibility for performing the going-concern assessment to management and contains guidance on how to perform a going-concern assessment and when going-concern disclosures would be required under GAAP. The Company is currently evaluating the impact of this ASU on its consolidated financial statements.

Accounting standards that have been issued by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on the Company's financial statements upon adoption.

Note 3 - Assembly Pharmaceuticals, Inc. Transaction

On July 11, 2014, the Company completed the Assembly Merger, whereby Assembly Pharmaceuticals became the Company's wholly-owned subsidiary. Pursuant to the terms of the Assembly Merger, the shares of Assembly Pharmaceuticals were converted into an aggregate of 4,008,848 shares of the Company's common stock. Also pursuant to the terms of the Assembly Merger, the options to purchase shares of Assembly Pharmaceuticals were assumed by the Company and became exercisable for an aggregate of 621,651 shares of the Company's common stock.

The allocation of the purchase price to the Assembly balance sheet is shown below:

Cash and cash equivalents	$	509,363
Other current assets		23,540
Equipment, net		10,350
IPR&D		29,000,000
Goodwill		12,737,350
Security deposits		16,606
Total assets		42,297,209
Accrued expenses		874,113
Deferred tax liability		11,600,000
Total liabilities		12,474,113
Net assets acquired	**$**	**29,823,096**

The transaction was accounted for using the acquisition method. Accordingly, goodwill has been measured as the excess of the total consideration over the amounts assigned to the identifiable assets acquired and liabilities assumed including the related deferred tax liability.

On the acquisition date, the fair value of net assets acquired was $29,823,096. The fair value of stock issued to the Assembly Pharmaceuticals shareholders as part of the consideration of $29,064,148 was based on reference to quoted market values of the Company's common stock as of the date of acquisition. The options assumed in the Assembly Merger were valued at approximately $758,948.

The fair value of the net assets acquired in the Assembly Merger is preliminary and is subject to change over the upcoming periods. The following table presents the unaudited pro forma financial results, as if the Assembly Merger had been completed as of January 1, 2013 and 2014.

Pro Forma

	For the Years Ended December 31,	
	2014	**2013**
Revenues	$ -	$ -
Net loss	(26,352,751)	(20,347,860)
Loss per share - basic and diluted	$ (2.90)	$ (2.58)

Note 4 - Goodwill

In July 2014, the Company completed its acquisition of Assembly Pharmaceuticals (Note 3). The fair value of consideration paid, common stock and assumed options, totaled $29,823,096, which, net of amounts allocated to assets and liabilities acquired at fair value, resulted in an allocation to goodwill of $12,737,350. The Company only has one operating segment.

Goodwill is recorded as an indefinite-lived asset and is not amortized for financial reporting purposes but is tested for impairment on an annual basis or when indications of impairment exist. No goodwill impairment losses have been recognized. Goodwill is not deductible for income tax purposes since the tax basis is $0. The Company will perform its annual impairment test of the carrying value of the Company's goodwill each year on December 31.

No goodwill existed as of December 31, 2013. The change in the net book value of goodwill from December 31, 2013 to December 31, 2014 is shown in the table below:

As of December 31, 2013	$ -
Acquisitions	12,737,350
As of December 31, 2014	$ 12,737,350

Note 5 - Intangible assets, net

In July 2014, the Company completed its acquisition of Assembly Pharmaceuticals (Notes 1 and 3). The Company acquired in-process research and development related to Assembly Pharmaceuticals' technology which is an indefinite lived intangible asset.

No intangible assets existed as of December 31, 2013. The change in intangible assets from December 31, 2013 to December 31, 2014 is shown in the table below:

As of December 31, 2013	$ -
Acquisitions - IPR&D	29,000,000
As of December 31, 2014	$ 29,000,000

Note 6 - Stockholders' Equity

Common and Preferred Stock Transactions

In January 2014, the Company sold an aggregate of 92,472 shares of its common stock in its amended at-the-market common equity offering program, resulting in net proceeds of approximately $1,763,000 or $19.07 per share.

In February 2014, all 44,000 outstanding shares of the Company's Series A non-voting convertible preferred stock converted into an aggregate 440,000 shares of common stock.

In July 2014, the Company issued 25,000 shares of common stock upon vesting of the restricted stock units.

On October 6, 2014, the Company sold to various institutional investors an aggregate of 1,959,000 shares of common stock in a registered direct offering. The purchase price paid by the investors was $8.04 per share and an aggregate of approximately $14,963,000 in net proceeds were received. In connection with the offering, the Company entered into a placement agent agreement with William Blair & Company, L.L.C., who acted as sole placement agent in the offering, and pursuant to which the Company paid a placement agent fee equal to 5.0% of the gross proceeds of the offering.

Reverse Stock Split

The Company's Board of Directors and stockholders approved a 1-for-5 reverse stock split of the Company's common stock. The reverse stock split became effective on July 11, 2014. All share and per share amounts in the consolidated financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to this reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital.

Assembly Merger

On July 11, 2014, the Company completed the Assembly Merger, whereby Assembly Pharmaceuticals became the Company's wholly-owned subsidiary. Pursuant to the terms of the Assembly Merger, the shares of Assembly Pharmaceuticals, common stock issued and outstanding were converted into an aggregate of 4,008,848 shares of the Company's common stock. Also pursuant to the terms of the Assembly Merger, the options to purchase shares of Assembly Pharmaceuticals common stock issued and outstanding immediately prior to the Assembly Merger were assumed by the Company and became exercisable for an aggregate of 621,651 shares of the Company's common stock. The fully vested assumed options in the Assembly Merger were valued at $758,948 using the Black-Scholes model. The fair value of the options was recorded as a component of stockholders' equity. The fair value of the options was determined using the Black-Scholes model with the following assumptions: risk free interest rate - 1.66% - 2.15%, volatility - 97.33% - 102.8%, expected term 5 - 6.1 years, expected dividends- N/A.

Options, Warrants and Restricted Stock Units:

Options

The Company has two equity incentive plans available for the granting of equity awards. In July 2014, the stockholders approved the 2014 Stock Incentive Plan, under which, as of December 31, 2014, there were options for an aggregate of 2,560,000 shares of common stock outstanding and no shares available for grant.

Prior to July 10, 2014, the Company's stockholders had approved the 2010 Stock Plan. The Company also had outstanding on July 10, 2014, options to purchase 403 shares of common stock issued pursuant to its 2006 Stock Plan which plan was terminated in 2010. From January 1, 2014 to July 10, 2014, an aggregate of 57,953 options were forfeited and on July 10, 2014, all of the Company's directors and employees forfeited an additional aggregate of 514,445 options. Through July 10, 2014, an aggregate of 122,700 options to acquire the Company's Common Stock was granted to employees. Also on July 10, 2014, Company's stockholders approved the 2014 Stock Incentive Plan, under which an aggregate of 2,560,000 shares of the Company's common stock is reserved for the issuance of equity awards to employees, directors and consultants of the Company and its subsidiaries. On July 10, 2014, the Company granted all of these options to various employees and directors with an exercise price of $7.20 and which vest one third on the date of grant, one third on the first anniversary of the option grant date and one third on the second anniversary of the option grant date. The cancellation and reissuance of these stock options was treated as a modification and, accordingly, total stock-based compensation expense related to these awards increased $15,003,740, which will be recognized over the new vesting period. The options assumed on the Assembly Merger are outside the Company's stock option plans.

On July 10, 2014, Dr. Felder ceased to be a director and 11,800 options vested on July 10, 2014. These 11,800 options subsequently expired 90 days after termination of his board service in 2014.

A summary of the Company's option activity under its option plans and related information is as follows:

	Number of Shares	Weighted Average Exercise Price	Total Intrinsic Value
Outstanding as of December 31, 2013	467,698	$ 29.35	$ -
Assumed	621,651	2.22	3,506,112
Granted	2,750,700	7.75	1,689,600
Forfeited	(590,398)	26.84	-
Expired	(11,800)	7.20	-
Outstanding as of December 31, 2014	3,249,651	$ 6.26	$ 5,187,924
Options vested and exercisable	1,086,425	$ 6.17	$ 1,832,125

The Company expects that all outstanding unvested options will vest. The fair value of the options granted for the year ended December 31, 2014 and 2013, was based on the following assumptions:

	Year ended December 31,	
	2014	2013
Exercise price	$2.22 - $8.13	$12.35 - $16.55
Expected stock price volatility	94.37% - 105.03%	59.32% - 77.34%
Risk-free rate of interest	1.65% - 2.53%	1.23% - 2.34%
Term (years)	4.9 - 10.0	7

Estimated future employees' stock-based compensation expense relating to unvested stock options is as follows:

	Future Stock Option Compensation Expenses
2015	6,280,264
2016	1,703,957
2017	34,943
Total	$ 8,019,164

The weighted average remaining contractual life of options outstanding at December 31, 2014 is approximately 9.5 years.

Stock-based compensation expensed to research and development expense for the years ended December 31, 2014 and 2013 was $2,707,337 and $695,636, respectively. Stock-based compensation expensed to general and administrative expense for the years ended December 31, 2014 and 2013 was $7,930,157 and $1,017,311, respectively.

Warrants

In connection with the Company's financings from 2007 to 2010, the Company issued warrants to investors and/or placement agents, as well as certain consultants, to purchase shares of common stock. In connection with the Assembly Merger, the Company issued warrants to purchase up to 120,265 shares of its common stock to its financial advisor for the Assembly Merger. The warrants were valued at $679,447 and expensed during the quarter ended September 30, 2014.

A summary of the Company's warrant activity and related information is as follows:

	Warrants	Weighted Average Exercise Price
Outstanding as of December 31, 2013	172,209	$ 38.85
Issued	120,265	5.13
Expired	(21,713)	33.00
Outstanding as of December 31, 2014	270,761	$ 24.34
Exercisable as of December 31, 2014	270,761	$ 24.34

Restricted Stock Units

On April 5, 2013, the Company granted restricted stock units to four employees under the 2010 Plan for an aggregate of 100,000 shares of common stock. Of these units, 25% vested immediately at the grant date. The remaining 75% of the units were forfeited on July 10, 2014 and the holders received options (see options above).

A summary of the status of our restricted stock units as of December 31, 2014 is as follows:

	Number of Shares	Weighted Average Exercise Price
Outstanding as of December 31, 2013	75,000	$ 10.20
Forfeited	(75,000)	10.20
Outstanding as of December 31, 2014	-	$ -

Note 7 - Income Taxes

There was no current or deferred income tax provision for the years ended December 31, 2014 and 2013.

The Company's deferred tax assets as of December 31 consist of the following:

	As of December 31,	
	2014	2013
Deferred tax assets:		
Net-operating loss carryforward	$ 38,094,000	$ 32,193,000
Stock-based compensation	11,691,000	6,617,000
In-Process R&D	5,697,000	6,017,000
R&D credit	2,600,000	2,149,000
Other	2,000	-
Total Deferred Tax Assets	58,084,000	46,976,000
Valuation allowance	(58,084,000)	(46,976,000)
Deferred Tax Asset, Net of	$ -	$ -
In-process research and development (Assembly Merger)	11,600,000	-
Deferred Tax Liability	$ 11,600,000	$ -

The Company recognized a $11,600,000 deferred tax liability in 2014 as a result of the acquisition of Assembly Pharmaceuticals in July 2014. Due to the acquisition, a temporary difference between the book fair value and the tax basis of the other in-process research and development acquired created an approximately $11,600,000 deferred tax liability and additional goodwill was recorded.

At December 31, 2014, the Company had potentially utilizable gross Federal net operating loss carry-forwards of approximately $86,551,323, State net operating loss carry-forwards of approximately $79,958,236 and research and development credit carry forward of approximately $2,600,174, all of which expire between 2027 and 2031.

An ownership change under Internal Revenue Code ("IRC") Section 382 could have occurred due to common stock issued in the IPO and debt conversions in December 2010 and also in the Assembly Merger in July 2014. Due to the change in ownership provisions of the IRC, the availability of the Company's net operating loss carry forwards could be subject to annual limitations against taxable income in future periods, which could substantially limit the eventual utilization of such carry forwards. As of now, the Company has not analyzed the historical or potential impact of its equity financings on beneficial ownership. The Company will undertake to perform an IRC 382 study within the next year to determine the extent of a limitation. The effects of the study could cause a significant reduction in the deferred tax asset with an offsetting reduction in the valuation allowance.

	For the years ended December 31,	
	2014	2013
Statutory Federal Income Tax Rate	(34.0)%	(34.0)%
State Taxes, Net of Federal Tax Benefit	(11.0)%	(11.0)%
Change in Valuation Allowance	45.0%	45.0%
Income Taxes Provision (Benefit)	0.0%	0.0%

Note 8 - License Agreements

HBV Research Agreement with Indiana University

The Company, through its wholly-owned subsidiary, Assembly Pharmaceuticals, is party to a license agreement with Indiana University Research and Technology Corporation ("IURTC") from whom it has licensed the Company's HBV therapy. The license agreement requires the Company to make milestone payments based upon the successful accomplishment of clinical and regulatory milestones related to the HBV therapy. The total amount of all potential future milestone payments at December 31, 2014 is $825,000. The Company also is obligated to pay IURTC royalty payments based on net sales of the licensed technology. The Company is also obligated to pay diligence maintenance fees (starting at $25,000 in 2014 and rising to $100,000 in the year following first commercial sale of licensed product) each year to the extent that the royalty, sublicensing, and milestone payments to IURTC are less than the diligence maintenance fee for that year.

Microbiome Targeted Colonic Delivery Platform

On November 8, 2013, Assembly entered into a License and Collaboration Agreement with Therabiome, LLC, for all intellectual property and know-how owned or controlled by Therabiome relating to the oral delivery of pharmaceutical drugs to specific sites in the intestine, using a pH sensitive controlled release platform technology. Under the agreement, Therabiome granted to Assembly the exclusive worldwide license, with rights to sublicense, to develop the intellectual property for commercialization (a) in the use of bacteria, viruses, proteins and small molecules by oral delivery in (i) gastro- intestinal dysbiosis, including but not limited to C. difficile, irritable bowel syndrome-constipation and inflammatory bowel disease, (ii) auto-immune disorders and autism, including but not limited to as controlled by bacteria or virus, and (iii) orally delivered vaccines, including viral and bacterial, and (b) any oral delivery of small molecules using the licensed intellectual property. Assembly will be solely responsible for all research and development activities with respect to any product it develops under the license.

For the license, Assembly paid Therabiome an upfront non-refundable license fee of $300,000. Assembly must pay Therabiome clinical and regulatory milestones for each product or therapy advanced from the platform for U.S. regulatory milestones. Assembly also must pay Therabiome lesser amounts for foreign regulatory milestones, which vary by country and region. Assembly also must pay Therabiome royalties on annual net sales of a product in the low to mid-single digit percentages plus, once annual net sales exceed two certain thresholds, a one-time cash payment upon reaching each threshold.

Therabiome must pay Assembly royalties on annual net sales of any product it develops, using the intellectual property, in the low double to mid-double digit percentages, depending on the level of development or involvement Assembly had in the product.

Diltiazem (VEN 307) and Phenylepherine (VEN 308)

The Company had an exclusive royalty-bearing license agreement with S.L.A. Pharma, AG ("S.L.A. Pharma") to sell, make and use diltiazem (VEN 307) for treatment, through topical administration, of anal fissures and phenylepherine (VEN 308) for treatment, through topical administration, of fecal incontinence (referred to collectively as the "Compound Technologies") in the United States, Canada and Mexico. In the event that the Compound Technologies were commercialized, Assembly was obligated to pay to S.L.A. Pharma annual royalties, based upon net sales of the products. In addition, Assembly was required to make payments to S.L.A. Pharma up to an aggregate amount of $20 million upon the achievement of various milestones related to regulatory events.

On July 24, 2014, the Company notified S.L.A. Pharma that it was terminating the license agreement. The termination was effective on October 22, 2014. There were no early termination penalties as a result of the termination and the Company has no continuing obligation to make payment to S.L.A. Pharma under the agreement. The Company terminated the agreement to focus on the development of its potentially curative programs for HBV, which program was acquired on July 11, 2014 in the merger with Assembly Pharmaceuticals, Inc., and CDAD, which was licensed in November 2013 from Therabiome, LLC.

Note 9 - Commitments and Contingencies

Lease

As of December 31, 2014, the Company had offices in New York, NY with an $8,400 monthly payment. The lease expires in September 2015.

In January 2015, the Company entered into a lease in San Francisco, CA with an $36,145 monthly payment. The lease expires in December 2016.

Employment agreements

On January 15, 2014, the Company entered into an employment agreement with each of its Chief Executive Officer and its Chief Financial Officer, with an effective date of December 22, 2013. Each agreement has a term of two years and will be automatically extended for additional one-year periods unless the Company notifies the officer at least 180 days prior to the then current expiration date that it intends to not extend the employment agreement. The employment agreements provide for a base salary of $475,000 per year for the Chief Executive Officer and $300,000 for the Chief Financial Officer, and an annual discretionary bonus of up to 50% of the officer's base salary based on financial, clinical development and business milestones established by the Board of Directors. In connection with the Assembly Merger, the Company amended the Chief Executive Officer's employment agreement. Pursuant to the amendment, the Chief Executive Officer will continue to serve as the Company's Chief Executive Officer. However, after the Assembly Merger, at any time the Company's Board may appoint the Company's President and Chief Operating Officer as Chief Executive Officer. In such event, the Chief Executive Officer will become the Executive Chair, and his employment as Chief Executive Officer will end. In December 2014, the compensation committee approved a change of base salary to $350,000 per year for the Chief Financial Officer.

In connection with the Assembly Merger, effective July 11, 2014, the Company entered into employment agreements with its President and Chief Operating Officer, its Chief Medical Officer, and its Chief Scientific Officer. The President's employment agreement has a term of two years and will be automatically extended for additional one-year periods unless the Company notifies the President at least 180 days prior to the then current expiration date that it intends to not extend the employment agreement. The other two employment agreements provide for at-will employment, subject to payment of severance benefits depending on the circumstances of termination. The employment agreements provide for a base salary of $350,000 per year for the President, $290,000 per year for the Chief Medical Officer and $315,000 per year for the Chief Scientific Officer. Each employee is also eligible for an annual discretionary bonus based on achievement of financial, clinical development and business milestones established by the Board of Directors, with the President eligible for a bonus of up to 50% of his base salary, and the Chief Medical Officer and the Chief Scientific Officer eligible for a bonus of up to 30% of their respective base salaries. The President and the Chief Medical Officer also received a retention bonus payable after three months of employment in the amount of $150,000 and $100,000, respectively.

Litigation

In June 2012, the Company announced that its product iferanserin (VEN 309), failed to meet its end point at the completion of its Phase III clinical trial. In May 2013 two purported class action lawsuits alleging violations of the federal securities laws were filed in New York against the Company, two of its executive officers and the lead underwriter of its initial public offering. The lawsuits included allegations that, during the class period between December 17, 2010 and June 25, 2012, the Company and its executive officers and underwriter made various statements related to the Company's product, iferanserin (VEN 309), including but not limited to, the market for the product, the potential competitors, and the results of clinical trials, thereby inflating the price of our common stock. The complaints sought unspecified damages, interest, attorneys' fees, and other costs. On July 23, 2013, the Court consolidated the actions and appointed lead plaintiffs and lead counsel. On September 16, 2013, lead plaintiffs filed a consolidated amended complaint. On November 22, 2013, the Company filed a motion to dismiss the consolidated amended complaint (the "Motion to Dismiss").

On May 5, 2014, the Court granted the Motion to Dismiss and dismissed the class action with prejudice.

On May 19, 2014, lead plaintiffs filed a Motion for Reconsideration of the Court's order dismissing the class action with prejudice (the "Motion for Reconsideration"). On July 2, 2014, the Court entered an order denying the Motion for Reconsideration. Lead plaintiffs had until August 2, 2014 to file notice of an appeal, but no appeal was filed.

Note 10- Subsequent Event

On February 10, 2015, the Company named Mr. Small its Chief Executive Officer, in addition to his current position as President, and named Mr. Barrett its Chief Operating Officer, in addition to his current role as Chief Financial Officer. In his new position, Mr. Small received a 20% salary increase, bringing his salary to $420,000, and for his additional responsibility, Mr. Barrett receive a 3% salary increase, bring his salary to $360,500. As had been agreed during the Assembly Merger, Mr. Small succeeded Dr. Ellison as the Company's Chief Executive Officer. At the same time, the Company's current director William Ringo succeeded Dr. Ellison as Chairman. Dr. Ellison will continue to serve the Company as a director until the 2015 annual meeting, and he will also continue as a Senior Advisor and head of the Company's microbiome development program. The succession constitutes a "termination without cause" under Dr. Ellison's employment agreement. As a result, subject to Dr. Ellison signing a release agreement and the passage of the required revocation period provided therein, Dr. Ellison will be entitled to 12 months of salary, immediate vesting of an additional one third of his outstanding options an extension of the exercise period (which would otherwise have been shortened to 90 days subsequent to his termination) to the option expiration date of July 10, 2024, and reimbursement of COBRA premiums for 12 months or until he is eligible for insurance benefits from another employer, whichever is earlier.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements of Assembly Biosciences, Inc. (formerly Ventrus Biosciences, Inc.) on Form S-3 (Nos. 333-179259 and 333-200612) and Form S-8 (Nos. 333-173613 and 333-198803) of our report dated March 12, 2015, on our audits of the consolidated financial statements as of December 31, 2014 and 2013, and for each of the years in the two-year period ended December 31, 2014,which report is included in this Annual Report on Form 10-K/A to be filed on or about March 16, 2015.

/s/ EisnerAmper LLP
New York, New York
March 15, 2015

Exhibit 31.1

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Derek Small, certify that:

(1) I have reviewed this Amendment No. 1 to the annual report on Form 10-K for the year ended December 31, 2014 of Assembly Biosciences, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; and

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

Dated: March 16, 2015
/s/ Derek Small

Derek Small
President and Chief Executive Officer (Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF THE CHIEF FINANCIAL OFFICER PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David J. Barrett, certify that:

(1) I have reviewed this Amendment No. 1 to the annual report on Form 10-K for the year ended December 31, 2014 of Assembly Biosciences, Inc.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; and

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

Dated: March 16, 2015
/s/ David J. Barrett

David J. Barrett
Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

Exhibit 32.1

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S. C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Amendment No. 1 to the annual report on Form 10-K of Assembly Biosciences, Inc. (the "Company") for the fiscal year ended December 31, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Derek Small, President and Chief Executive Officer (Principal Executive Officer) of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 16, 2015
/s/ Derek Small

Derek Small
President and Chief Executive Officer (Principal Executive Officer)

Exhibit 32.2

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S. C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Amendment No. 1 to the annual report on Form 10-K of Assembly Biosciences, Inc. (the "Company") for the fiscal year ended December 31, 2014, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David J. Barrett, Chief Financial Officer (Principal Financial and Accounting Officer) of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 16, 2015
/s/ David J. Barrett

David J. Barrett
Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)