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

FORM 10-Q

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

For the quarterly period ended March 31, 2015 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 as specified in its charter)

Delaware	**20-8729264**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
99 Hudson Street, 5th Floor **New York, New York**	**10013**
(Address of principal executive offices)	(zip code)

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES ☒ NO ☐

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

Large Accelerated Filer	☐		Accelerated Filer	☐
Non-accelerated Filer	☐	(Do not check if smaller reporting company)	Smaller Reporting Company	☒

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

As of May 5, 2015, there were 17,177,106 shares of registrant's common stock outstanding.

Index

PART I - FINANCIAL INFORMATION
Item 1. Financial Statements.

ASSEMBLY BIOSCIENCES, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

	March 31 2015 (Unaudited)	December 31 2014
ASSETS		
Current assets		
Cash	$ 96,054,082	$ 29,091,113
Other current assets	283,836	125,284
Total current assets	96,337,918	29,216,397
Property, plant and equipment, net	173,248	156,441
Security deposits	98,899	115,005
Intangible assets	29,000,000	29,000,000
Goodwill	12,737,350	12,737,350
Total assets	**$ 138,347,415**	**$ 71,225,193**
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 1,250,843	$ 907,601
Accrued expenses	877,540	146,420
Total current liabilities	2,128,383	1,054,021
Deferred tax liabilities	11,600,000	11,600,000
Total liabilities	**13,728,383**	**12,654,021**
Stockholders' equity		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; 0 shares issued and outstanding at March 31, 2015 and December 31, 2014, respectively	-	-
Common stock, $0.001 par value; 50,000,000 shares authorized; 16,250,814 shares and 10,672,059 shares issued, and outstanding at March 31, 2015 and December 31, 2014, respectively	16,251	10,672
Additional paid-in capital	267,259,806	194,072,572
Accumulated deficit	(142,657,025)	(135,512,072)
Total stockholders' equity	124,619,032	58,571,172
Total liabilities and stockholders' equity	**$ 138,347,415**	**$ 71,225,193**

See Notes to Condensed Consolidated Financial Statements

ASSEMBLY BIOSCIENCES, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)
For the three months ended March 31, 2015 and 2014

	Three Months Ended March 31,	
	2015	**2014**
Operating expenses:		
Research and development	$ 3,834,434	$ 2,973,690
General and administrative	3,368,784	1,136,461
Total operating costs and expenses	7,203,218	4,110,151
Loss from operations	**(7,203,218)**	**(4,110,151)**
Other income		
Interest income	58,265	40,234
Total other income	58,265	40,234
Net loss	**$ (7,144,953)**	**$ (4,069,917)**
Net loss per share, basic and diluted	$ (0.64)	$ (0.92)
Weighted average common shares outstanding, basic and diluted	11,176,580	4,418,940

See Notes to Condensed Consolidated Financial Statements

ASSEMBLY BIOSCIENCES, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)
For the three months ended March 31, 2015 and 2014

	Three Months Ended March 31,	
	2015	**2014**
Cash flows from operating activities		
Net loss	$ (7,144,953)	$ (4,069,917)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	13,904	1,266
Stock-based compensation	2,585,780	254,717
Changes in assets and liabilities:		
Other current assets	(158,552)	(195,522)
Accounts payable	283,242	(1,179,419)
Accrued expenses	731,120	3,814
Other assets	16,106	-
Net cash used in operating activities	(3,673,353)	(5,185,061)
Cash flows from investing activities		
Purchase of fixed assets	(30,711)	(2,589)
Net cash used in investing activities	(30,711)	(2,589)
Cash flows from financing activities		
Proceeds from issuance of common stock, net of cost	70,499,993	1,763,104
Proceeds from the exercise of stock options	167,040	-
Net cash provided by financing activities	70,667,033	1,763,104
Net increase (decrease) in cash	66,962,969	(3,424,546)
Cash at the beginning of the period	29,091,113	27,061,268
Cash at the end of the period	**$ 96,054,082**	**$ 23,636,722**
Supplemental schedule of non-cash financing activities		
Accrued offering cost related to the issuance of common stock	(60,000)	-
Conversion of preferred stock to common stock	-	440

See Notes to Condensed Consolidated Financial Statements

ASSEMBLY BIOSCIENCES, INC.

CONDENSED CONSOLDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY
(UNAUDITED)
For the three months ended March 31, 2015

	Common Stock		Additional	Accumulated	Total Stockholders'
	Shares	Amount	Paid-in Capital	Deficit	Equity
Balance as of December 31, 2014	**10,672,059**	**$ 10,672**	**$ 194,072,572**	**$ (135,512,072)**	**$ 58,571,172**
Proceeds from common stock sold, net of underwriters' discounts and cost	5,555,555	5,556	70,494,437	-	70,499,993
Accrued offering cost related to the issuance of common stock	-	-	(60,000)	-	(60,000)
Exercise of stock options	23,200	23	167,017	-	167,040
Stock-based compensation	-	-	2,585,780	-	2,585,780
Net loss	-	-	-	(7,144,953)	(7,144,953)
Balance as of March 31, 2015	**16,250,814**	**$ 16,251**	**$ 267,259,806**	**$ (142,657,025)**	**$ 124,619,032**

See Notes to Condensed Consolidated Financial Statements

Note 1 – Business:

Overview

Assembly Biosciences, Inc. ("Assembly" or the "Company") is a biopharmaceutical company committed to developing novel oral therapies for the cure of intractable infectious diseases, focusing on the hepatitis B virus (HBV) and C. difficile-associated diarrhea (CDAD). Our HBV-Cure research team is working on discovering and developing multiple core protein allosteric modifiers (CpAMs) with the potential to modulate the HBV core protein - a polyfunctional essential viral protein - at multiple complementary points in the viral lifecycle. The goal is to eradicate the infection with an orally-administered regimen. Our CDAD program is based on the premise that an oral capsule containing specific bacteria grown in monoculture and manufactured under pharmaceutical-like GMP conditions might be effective in providing the therapeutic benefits of fecal microbiota transplant (FMT) therapy in a form that is economically viable and scalable for use.

2014 Highlights

On July 11, 2014, Assembly Biosciences was formed by the merger of private company Assembly Pharmaceuticals, Inc. and Nasdaq-listed Ventrus Biosciences, Inc. The merger resulted in a shift in strategic focus, the addition of a new lead drug development program and changes in personnel. In connection with the merger, 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. In connection with the 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 Merger, the outstanding options to purchase shares of Assembly Pharmaceuticals, common stock were assumed by the Company and became exercisable for an aggregate of 621,651 shares of the Company's common stock.

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.

2015 Highlights

On March 19, 2015, the Company sold to various investors an aggregate of 5,555,555 shares of common stock in a public offering. The purchase price paid by the investors was $13.50 per share and an aggregate of approximately $70.5 million (net of underwriters' discount) were received.

On April 6, 2015, the underwriters exercised in full their option to purchase an additional 833,333 shares of our common stock at the public offering price of $13.50 per share, less underwriting discounts and commissions and offering expenses. Proceeds from the sale of shares on the exercise of the underwriters' option (net of underwriters' discount) were approximately $10.6 million.

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 at least 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, if at all.

Note 2 – Summary of Significant Accounting Policies:

Significant Accounting Policies

There have been no material changes in the Company's significant accounting policies to those previously disclosed in the Company's annual report on Form 10-K for the year ended December 31, 2014, which was filed with the SEC on March 12, 2015 and amended on March 16, 2015 ("2014 Annual Report").

Basis of Presentation

The accompanying unaudited condensed consolidated interim financial statements include the accounts of the Company and its subsidiary from the date of its acquisition (July 11, 2014). Accordingly, the results of operations for the three months ended March 31, 2014 do not include the operations of Assembly Pharmaceuticals. All material intercompany balances and transactions have been eliminated.

The accompanying unaudited condensed financial statements as of March 31, 2015 and for the three months ended March 31, 2015 and 2014 have been prepared in accordance with the accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and pursuant to the instructions to Form 10-Q and Article 8 of Regulation S-X of the Securities and Exchange Commission ("SEC") and on the same basis as the Company prepares its annual audited consolidated financial statements. The condensed consolidated balance sheet as of March 31, 2015, condensed consolidated statements of operations for the three months ended March 31, 2015 and 2014, condensed consolidated statement of changes in stockholders' equity for the three months ended March 31, 2015, and the condensed consolidated statements of cash flows for the three months ended March 31, 2015 and 2014 are unaudited, but include all adjustments, consisting only of normal recurring adjustments, which the Company considers necessary for a fair presentation of the financial position, operating results and cash flows for the periods presented. The results for the three months ended March 31, 2015 are not necessarily indicative of results to be expected for the year ending December 31, 2015 or for any future interim period. The condensed balance sheet at December 31, 2014 has been derived from audited financial statements; however, it does not include all of the information and notes required by U.S. GAAP for complete financial statements. The accompanying condensed financial statements should be read in conjunction with the consolidated financial statements for the year ended December 31, 2014, and notes thereto included in the 2014 Annual Report.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of 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.

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 April 2015, the FASB issued a proposal to defer the effective date of ASU 2014-09 by a year.

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 condensed 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 outstanding options to purchase shares of Assembly Pharmaceuticals were assumed by the Company and an aggregate of 621,651 shares of the Company's common stock were reserved for issuance thereunder.

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
In-process research and development	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 $758,948. The following table presents the unaudited pro forma financial results, as if the Assembly Merger had been completed as of January 1, 2014.

Pro Forma

	Three Months Ended March 31, 2014
Revenues	$ -
Net loss	(4,495,684)
Loss per share - basic and diluted	$ (0.54)

Note 4 – Goodwill and Intangible Assets:

In July 2014, the Company completed its acquisition of Assembly Pharmaceuticals (Note 1 and 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 also acquired certain indefinite-lived intangible assets related to Assembly Pharmaceuticals' technology. The Company only has one operating segment.

Goodwill

Goodwill 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.

There was no change in the net book value of goodwill from December 31, 2014 to March 31, 2015.

Intangible Assets

The intangible assets acquired are recorded as indefinite-lived asset and are not amortized for financial reporting purposes but are tested for impairment on an annual basis or when indications of impairment exist. No intangible assets impairment losses have been recognized. Intangible assets are 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 intangible assets each year on December 31.

There was no change in intangible assets from December 31, 2014 to March 31, 2015.

Note 5 - Property, Plant and Equipment, Net:

Property, plant and equipment, consisted of the following:

	Useful Life (Years)	March 31, 2015	December 31, 2014
Computer hardware and software	3	75,226	75,196
Lab equipment	3 to 5	161,058	130,377
Office equipment	3 to 5	1,109	1,109
Total property, plant and equipment		237,393	206,682
Less: Accumulated depreciation and amortization		(64,145)	(50,241)
Property, plant and equipment, net		$ 173,248	$ 156,441

Depreciation expense for the three months ended March 31, 2015 and 2014 was $13,904 and $1,266, respectively, and was recorded in both research and development expense and general and administrative expense in the consolidated statements of operations.

Note 6 - Accrued Expenses:

Accrued expenses consisted of the following:

	March 31, 2015	December 31, 2014
Accrued expenses:		
Salaries, bonuses and employee benefits	$ 253,156	$ -
Severance accrued for former CEO	491,170	-
Professional fees	19,000	19,860
Research and development expenses	15,000	27,346
License maintenance fees	99,214	99,214
Total accrued expenses	$ 877,540	$ 146,420

Note 7 - Stockholders' Equity:

Equity Financing

On March 19, 2015, the Company sold to various investors an aggregate of 5,555,555 shares of common stock in a public offering. The purchase price paid by the investors was $13.50 per share and an aggregate of approximately $70.5 million in net proceeds were received, after deducting underwriting discounts and commissions and estimated offering expenses. In addition, the Company granted the underwriters a 30-day option to purchase up to an additional 833,333 shares of common stock.

On April 6, 2015, the underwriters exercised in full their option to purchase an additional 833,333 shares of common stock at the public offering price of $13.50 per share, less underwriting discounts and commissions and offering expenses. The closing of the option exercise resulted in net proceeds of approximately $10.6 million. Exercise of the underwriters' option increased the net proceeds (net of underwriters' discount) of the public offering, from $70,500,000 to $81,000,000.

Options, Warrants and Restricted Stock Units

Options

The Company has two equity incentive plans available for the granting of equity awards. In July 2010, the stockholders approved the 2010 Stock Plan, under which, as of March 31 2015, there were outstanding options for an aggregate of 68,000 shares of common stock and an aggregate of 696,100 shares available for grant. In July 2014, the stockholders approved the 2014 Stock Incentive Plan (the "2014 Plan"), under which, as of March 31, 2015, there were options for an aggregate of 2,270,834 shares of common stock outstanding and 289,166 shares available for grant.

On February 10, 2015, pursuant to and subject to the available number of shares reserved under the 2014 Plan, the Company issued 12,500 incentive stock options with a term of 10 years and an exercise price of $9.42 to a new employee. One-third of the options will vest on the first anniversary of the vesting commencement date; the remainder will vest in two equal installments on the second and third anniversary of the vesting commencement date.

On February 10, 2015, Dr. Ellison transitioned to service as a consultant. The Company accelerated 266,667 of his options on March 3, 2015 in accordance with the original terms of his employment agreement. The exercise period for Dr. Ellison's vested options were also extended until the end of their term, or July 9, 2024 in accordance with the original terms of his employment agreement. The remainders of 266,666 unvested options were forfeited in accordance with the original terms of his employment agreement.

On February 19, 2015, an employee exercised options to purchase 21,200 common shares under and pursuant to the 2014 Plan. The total purchase price was $152,640 with a price of $7.20 per share.

On February 24, 2015, an employee exercised options to purchase 2,000 common shares under and pursuant to the 2014 Plan. The total purchase price was $14,400 with a price of $7.20 per share.

A summary of the Company's option activity and related information for the three-month period ended March31, 2015 is as follows:

	Number of Shares	Weighted Average Exercise Price	Total Intrinsic Value
Outstanding as of December 31, 2014	3,237,851	$ 6.26	$ 5,187,924
Granted	12,500	9.42	-
Exercised	(23,200)	7.20	140,128
Forfeited	(266,666)	7.20	-
Outstanding as of March 31, 2015	2,960,485	$ 6.19	$ 20,886,161
Options vested and exercisable	1,381,696	$ 6.21	$ 9,717,342

The fair value of the options granted for the three-month period ended March 31, 2015, was based on the following assumptions:

	Three Months Ended March 31, 2015
Exercise price	9.42
Expected stock price volatility	92.64% - 105.03%
Risk-free rate of interest	1.49% - 2.53%
Term (years)	5.4 - 10.0

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

	Future Stock Option Compensation Expense
Nine months ended 2015	$ 3,033,545
2016	1,262,438
2017	44,645
Total	$ 4,340,628

The weighted average remaining contractual life of options outstanding at March 31, 2015 is approximately 9.3 years.

Stock-based compensation expensed to research and development expense for the three months ended March 31, 2015 and 2014 was $1,055,430 and $(4,335) (including reversal of charges related to unvested options which were forfeited), respectively. Stock-based compensation expensed to general and administrative expense for the three months ended March 31, 2015 and 2014 was $1,530,350 and $259,052, respectively.

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 were not included in the computation of diluted loss per share for the three months ended March 31, 2015 and 2014 are as follows:

	Three Months Ended March 31,	
	2015	2014
Non-vested restricted stock units	-	75,000
Warrants to purchase common stock	270,761	151,236
Options to purchase common stock	2,960,485	536,598
Total	**3,231,246**	**762,834**

Note 8 - Commitments:

Lease

As of March 31, 2015, 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 a $36,145 monthly payment. The lease expires in December 2016.

Employment Agreements

The Company has employment agreements with its Chief Executive Officer and Chief Financial Officer which provide for an aggregate annual salary of approximately $780,500 in 2015.

Note 9 - Legal Proceedings:

The Company is not a party to any legal proceedings and is not aware of any claims or actions pending or threatened against it. In the future, the Company might from time to time become involved in litigation relating to claims arising from our ordinary course of business.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The interim financial statements and this Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the financial statements and notes thereto for the year ended December 31, 2014, and the related Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our Annual Report on Form 10-K, as amended, for the year ended December 31, 2014 filed on March 16, 2015. In addition to historical information, this discussion and analysis contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are subject to risks and uncertainties, including those set forth under "Part I. Item 1. Business - Risk Factors" in our Annual Report on Form 10-K, as amended, for the year ended December 31, 2014, and elsewhere in this report, that could cause actual results to differ materially from historical results or anticipated results.

Overview

We are a biopharmaceutical company committed to developing novel oral therapies for the cure of intractable infectious diseases, focusing on direct-acting anti-virals for the hepatitis B virus (HBV) and microbiome-based therapeutics for C. difficile-associated diarrhea (CDAD). On July 11, 2014, Assembly Biosciences merged with a private company Assembly Pharmaceuticals, Inc. 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.

Our HBV program is focused on a clinical cure for HBV. 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 microbiome program, which we are pursuing as a treatment for CDAD, 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 our inception, 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 March 31, 2015, we had an accumulated deficit of $142,657,025. 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.

We believe that our existing cash will be sufficient to fund our projected operating requirements for at least the next twelve months.

Our operations are subject to other certain risks and uncertainties, including but not limited to: uncertainty of product candidate development; uncertainty of regulatory approval; unpredictability of the size of the markets for, and market acceptance of, any of our products; our anticipated capital expenditures, our estimates regarding our capital requirements; our ability to retain and hire necessary employees and to staff our operations appropriately; and the possible impairment of, or inability to obtain, intellectual property rights and the costs of obtaining such rights from third parties. Any significant delays in the development or marketing of products could have material adverse effect on our business and financial results.

Recent Events

Management Changes

In February 2015, Derek Small was named Chief Executive Officer, in addition to his position as President; current director William Ringo was named non-executive Chairman; and David J. Barrett was named Chief Operating Officer, in addition to his role as Chief Financial Officer. As had been agreed during the merger establishing Assembly Biosciences last year, Mr. Small succeeded Russell H. Ellison, MD, as CEO. In addition, Mr. Ringo succeeded Dr. Ellison as Chairman. Dr. Ellison will continue to serve the company as a director until the 2015 annual meeting, and he also continues as a Senior Advisor and head of Assembly's microbiome development program as the company approaches several key milestones. The succession constitutes a "termination without cause" under Dr. Ellison's employment agreement. As a result, Dr. Ellison was entitled to 12 months of salary, immediate vesting of an additional one third of his outstanding option and an extension of the exercise period 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.

In his new position, Mr. Small received a 20% salary increase. For his additional responsibility, Mr. Barrett received a 3% salary increase.

Equity Financing

On March 19, 2015, we sold to various investors an aggregate of 5,555,555 shares of common stock in a public offering. The purchase price paid by the investors was $13.50 per share and an aggregate of approximately $70.5 million in net proceeds (net of underwriters' commission) were received. In addition, we granted the underwriters a 30-day option to purchase up to an additional 833,333 shares of common stock.

On April 6, 2015, the underwriters exercised in full their option to purchase an additional 833,333 shares of our common stock at the public offering price of $13.50 per share, less underwriting discounts and commissions and offering expenses. The closing of the option exercise resulted in net proceeds to us of approximately $10.6 million. Exercise of the underwriters' option increased the net proceeds to us of the public offering, after any underwriting discounts and commissions and estimated offering expenses, from $70.5 million to approximately $81.1 million.

Critical Accounting Policies and Significant Judgments and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect our reported amounts of assets, liabilities, revenues and expenses.

On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses and stock-based compensation. We based our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the reported amounts of revenues and expenses that are not readily apparent from other sources. Actual results may differ from these estimates.

Our critical accounting policies and significant estimates are detailed in our Annual Report on Form 10-K for the year ended December 31, 2014. Our critical accounting policies and significant estimates have not changed substantially from those previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2014.

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.

Results of Operations

Comparison of the Three Months Ended March 31, 2015 and 2014

Research and Development Expense

Research and development expense, excluding stock-based compensation expense, was $2,779,004 for the three months ended March 31, 2015, a decrease of $199,021 or 6.68%, from $2,978,025 for the same period in 2014. The reason for the decrease was due to the clinical trial for VEN 307 ending, offset by $727,670 and $2,051,331 in research expenses for our Microbiome and HBV program during the quarter ended March 31, 2015.

Stock-based compensation was $1,055,430 for the three months ended March 31, 2015, an increase of $1,059,765, from a credit of $4,335 (due to the reversal of charges related to unvested options which were forfeited) for the same period in 2014. The increase in compensation expense is primarily due to the granting of stock options since July 2014.

General and Administrative Expense

General and administrative expense consists primarily of salaries, consulting fees and other related costs, professional fees for legal services and accounting services, insurance and travel expenses, as well as the stock based compensation expense associated with equity awards to our employees, consultants and directors.

General and administrative expense, excluding stock-based compensation expense, was $1,838,434 for the three months ended March 31, 2015, an increase of $961,025 or 109.53% from $877,409 for the three months ended March 31, 2014. The reason for the increase was mostly due to $491,170 of one employee's severance fees, increase of employees' benefits and bonus, and increase of consulting, legal and accounting expenses.

Stock-based compensation expense was $1,530,350 for the three months ended March 31, 2015, an increase of $1,271,298 or 490.75%, from $259,052 for the same period in 2014. The increase in compensation expense is primarily due to the granting of stock options since July 2014.

Liquidity and Capital Resources

Sources of Liquidity

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 March 31, 2015 principally with convertible debt and equity financings.

On March 19, 2015, we sold to various investors an aggregate of 5,555,555 shares of common stock in a public offering. The purchase price paid by the investors was $13.50 per share and an aggregate of approximately $70.5 million in net proceeds were received. In addition, we had granted the underwriters a 30-day option to purchase up to an additional 833,333 shares of common stock.

On April 6, 2015, the underwriters exercised in full their option to purchase an additional 833,333 shares of our common stock at the public offering price of $13.50 per share, less underwriting discounts and commissions and offering expenses. The closing of the option exercise resulted in net proceeds (net of underwriters' discount) to us of approximately $10.6 million.

Net cash used in operating activities was $3,673,353 for the three months ended March 31, 2015. The use of cash in operating activities was primarily due to the loss (expenses) occurred during the quarter ended March 31, 2015 of $7,144,953, offset by non-cash expenses of $2,599,684 and decrease in accounts payable and accrued expenses of $1,014,362.

Net cash used in investing activities was $30,711 due to the purchase of fixed assets during the three months ended March 31, 2015.

Net cash provided by financing activities was $70,677,033 for the three months ended March 31, 2015. On March 19, 2015, we received net proceeds of approximately $70,500,000 in an underwriter's offering.

Funding Requirements

We expect to incur losses for at least the next several years as we develop our product pipeline. We expect to incur increasing research and development expenses as we begin preclinical and clinical activities on both platform technologies. We expect that our general and administrative expenses will also increase as we add infrastructure related to the merger with Assembly Pharmaceuticals. Our future capital requirements will depend on a number of factors, including the timing and outcome of preclinical activities, clinical trials and regulatory approvals, the costs involved in preparing, filing, prosecuting, maintaining, defending, and enforcing patent claims and other intellectual property rights, the acquisition of licenses to new products or compounds, the status of competitive products and the availability of financing.

Based on our cash position at March 31, 2015 and our analysis of our future development costs, we believe that our existing cash and cash equivalents will be sufficient to enable us to fund our operating expenses and capital expenditure requirements for at least twelve months. We have based these estimates on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect, which would cause us to require additional capital earlier. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated preclinical and clinical activities. We will need to raise additional funds to continue and finalize the development of our product candidates.

We may need to finance our future cash needs through public or private equity offerings, debt financings, corporate collaboration and licensing arrangements, or a bank credit facility or other financing vehicle if one or more of our assumptions prove to be incorrect or if we choose to expand our product development efforts more rapidly than we presently anticipate, and we may decide to raise additional funds even before we need them if the conditions for raising capital are favorable. We do not currently have any commitments for future external funding. The sale of additional equity or debt securities, if convertible, could result in dilution to our stockholders. The incurrence of indebtedness would result in increased fixed obligations and could also result in covenants that would restrict our operations.

Additional financing might not be available on acceptable terms, if at all. If we need additional capital and adequate funds are not available, we may be required to delay, reduce the scope of or eliminate our research and development programs, reduce our planned commercialization efforts or obtain funds through arrangements with collaborators or others that may require us to relinquish rights to certain product candidates that we might otherwise seek to develop or commercialize independently.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

There have been no material changes to our quantitative and qualitative disclosures about market risk as compared to the quantitative and qualitative disclosures about market risk described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain a system of disclosure controls and procedures, as defined in Exchange Act Rule 13a-15(e),which is designed to provide reasonable assurance that information, which is required to be disclosed in our reports filed pursuant to the Securities and Exchange Act of 1934, as amended (the “Exchange Act”), is accumulated and communicated to management in a timely manner. At the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Exchange Act Rule 13a-15(b). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report were effective.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting in the first quarter of 2015 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

We are not a party to any legal proceedings and we are not aware of any claims or actions pending or threatened against us. In the future, we might from time to time become involved in litigation relating to claims arising from our ordinary course of business.

Item 1A. Risk Factors.

There have been no changes that constitute a material change from the risk factors previously disclosed in our 2014 Annual Report on Form 10-K filed on March 12, 2015, and amended on March 16, 2015.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

Not applicable.

Item 6. Exhibits

Exhibit Number	Description of Document	Filed Herewith
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X
32.1	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X
32.2	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X
101	Financials in XBRL format.	X

SIGNATURES

In accordance with the requirements of the Exchange Act of 1934, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Assembly Biosciences, Inc.

Date: May 8, 2015

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

Date: May 8, 2015

By: /s/ David J. Barrett
David J. Barrett
Chief Financial Officer and Chief Operating Officer

EXHIBIT 31.1

CERTIFICATION

I, Derek Small, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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;

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 8, 2015

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

EXHIBIT 31.2

CERTIFICATION

I, David J. Barrett, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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;

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 8, 2015

By: /s/ David J. Barrett
David J. Barrett
Chief Financial Officer and Chief Operating Officer

EXHIBIT 32.1

CERTIFICATION 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 Quarterly Report on Form 10-Q of Assembly Biosciences, Inc. (the "Company") for the period ended March 31, 2015 as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, Derek Small, Chief Executive Officer, hereby 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 as of, and for, the periods presented in the Report.

/s/ Derek Small
Derek Small
President and Chief Executive Officer

May 8, 2015

EXHIBIT 32.2

CERTIFICATION 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 Quarterly Report on Form 10-Q of Assembly Biosciences, Inc. (the "Company") for the period ended March 31, 2015 as filed with the Securities and Exchange Commission on or about the date hereof (the "Report"), I, David J. Barrett, Chief Financial Officer, hereby 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 as of, and for, the periods presented in the Report.

/s/ David J. Barrett
David J. Barrett
Chief Financial Officer and Chief Operating Officer

May 8, 2015