

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 8, 2024

Assembly Biosciences, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware  
(State or Other Jurisdiction  
of Incorporation)

001-35005  
(Commission File Number)

20-8729264  
(IRS Employer  
Identification No.)

Two Tower Place, 7th Floor,  
South San Francisco, California  
(Address of Principal Executive Offices)

94080  
(Zip Code)

Registrant's Telephone Number, Including Area Code: (833) 509-4583

Not Applicable  
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.001	ASMB	The Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

**Item 2.02 Results of Operations and Financial Condition.**

On May 8, 2024, Assembly Biosciences, Inc. (the “Company”) issued a press release announcing its financial results for the quarter ended March 31, 2024. A copy of the press release is attached hereto as Exhibit 99.1.

The information furnished with this Item 2.02, including Exhibit 99.1, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any other filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
99.1	<a href="#">Press Release dated May 8, 2024.</a>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: May 8, 2024

Assembly Biosciences, Inc.

By: /s/ John O. Gunderson

John O. Gunderson

VP, General Counsel and Corporate Secretary

## Assembly Biosciences Reports First Quarter 2024 Financial Results and Recent Highlights

- *Clinical trial application clearances received for a Phase 1a/1b trial for ABI-5366 targeting recurrent genital herpes, and a Phase 1b trial for ABI-4334 in chronic HBV infection; both studies on track to initiate by mid-2024*
- *ABI-5366 interim Phase 1a first-in-human data expected in Q3 2024 and ABI-4334 interim Phase 1b data expected by end of year*

SOUTH SAN FRANCISCO, Calif., May 8, 2024 (GLOBE NEWSWIRE) -- Assembly Biosciences, Inc. (Nasdaq: ASMB), a biotechnology company developing innovative therapeutics targeting serious viral diseases, today reported financial results and recent highlights for the first quarter ended March 31, 2024.

“We are pleased that we now have regulatory clearance to initiate trials evaluating our promising investigational therapies ABI-5366 and ABI-4334 and look forward to sharing interim data from these studies later this year,” said Jason Okazaki, chief executive officer and president of Assembly Bio. “These clearances are a significant step toward our goal of reaching key clinical inflection points for multiple programs in our antiviral pipeline by year end. Our continued clinical progress reflects the strength and agility of our highly experienced team and our singular focus of improving treatment options for those living with serious viral diseases.”

### First Quarter 2024 and Recent Highlights

- Two clinical trial applications received clearance to proceed:
  - ABI-5366, a long-acting herpes simplex virus (HSV) helicase-primase inhibitor candidate, for initiation of Phase 1a/1b clinical studies in both healthy volunteers and in individuals with recurrent genital herpes
  - ABI-4334, a next-generation, highly potent capsid assembly modulator candidate, for initiation of a Phase 1b study in individuals with chronic hepatitis B virus (HBV) infection
- An abstract highlighting preclinical data for ABI-6250, an oral, small molecule HBV/hepatitis delta virus (HDV) entry inhibitor candidate, has been accepted for poster presentation at the European Association for the Study of the Liver (EASL) Congress™ 2024, June 5-8, 2024

### Anticipated 2024 Milestones

- ABI-5366 and ABI-4334 studies expected to initiate by mid-2024
    - ABI-5366 Phase 1a interim clinical data expected in Q3 2024 and interim Phase 1b data expected in the first half of 2025
    - ABI-4334 Phase 1b interim clinical data expected by the end of 2024
  - Two additional candidates are anticipated to enter the clinic by the end of 2024:
    - ABI-1179, a long-acting HSV helicase-primase inhibitor contributed by Gilead Sciences, Inc. (Gilead) under the collaboration between Assembly Bio and Gilead
    - ABI-6250, a small molecule orally-bioavailable HDV entry inhibitor
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### First Quarter 2024 Financial Results

- **Cash, cash equivalents and marketable securities** were \$113.0 million as of March 31, 2024, compared to \$130.2 million as of December 31, 2023. Assembly Bio's cash position is projected to fund operations into the second half of 2025.
- **Revenues** from collaborative research were \$5.8 million for the three months ended March 31, 2024. There was no revenue recognized for the same period in 2023. Revenue for the three months ended March 31, 2024 consists of amounts recognized under the collaboration with Gilead.
- **Research and development expenses** were \$11.9 million for the three months ended March 31, 2024, compared to \$14.5 million for the same period in 2023. Increased expenses related to the development of ABI-1179 and ABI-6250 were more than offset by savings from the discontinuation of ABI-H3733 and vebicorvir as well as reduced employee and contractor-related expenses.
- **General and administrative expenses** were \$4.6 million for the three months ended March 31, 2024, compared to \$5.0 million for the same period in 2023. The decrease is primarily due to a decrease in non-cash stock-based compensation expense.
- **Net loss attributable to common stockholders** was \$9.1 million, or \$1.66 per basic and diluted share, for the three months ended March 31, 2024, compared to \$19.0 million, or \$4.46 per basic and diluted share, for the same period in 2023.

The investigational products and investigational product candidates referenced here have not been approved anywhere globally, and their safety and efficacy have not been established.

### About Assembly Biosciences

Assembly Biosciences is a biotechnology company dedicated to the development of innovative small-molecule therapeutics designed to change the path of serious viral diseases and improve the lives of patients worldwide. Led by an accomplished team of leaders in virologic drug development, Assembly Bio is committed to improving outcomes for patients struggling with the serious, chronic impacts of herpesvirus, hepatitis B virus (HBV) and hepatitis delta virus (HDV) infections. For more information, visit [assemblybio.com](http://assemblybio.com).

### Forward-Looking Statements

The information in this press release contains forward-looking statements that are subject to certain risks and uncertainties that could cause actual results to materially differ. These risks and uncertainties include: Assembly Bio's ability to realize the potential benefits of its collaboration with Gilead Sciences, Inc., including all financial aspects of the collaboration and equity investments; Assembly Bio's ability to initiate and complete clinical studies involving its therapeutic product candidates, including studies contemplated by Assembly Bio's collaboration with Gilead, in the currently anticipated timeframes or at all; safety and efficacy data from clinical or nonclinical studies may not warrant further development of Assembly Bio's product candidates; clinical and nonclinical data presented at conferences may not differentiate Assembly Bio's product candidates from other companies' candidates; results of nonclinical studies may not be representative of disease behavior in a clinical setting and may not be predictive of the outcomes of clinical studies; and other risks identified from time to time in

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Assembly Bio's reports filed with the U.S. Securities and Exchange Commission (the SEC). You are urged to consider statements that include the words may, will, would, could, should, might, believes, hopes, estimates, projects, potential, expects, plans, anticipates, intends, continues, forecast, designed, goal or the negative of those words or other comparable words to be uncertain and forward-looking. Assembly Bio intends such forward-looking statements to be covered by the safe harbor provisions contained in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. More information about Assembly Bio's risks and uncertainties are more fully detailed under the heading "Risk Factors" in Assembly Bio's filings with the SEC, including its most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Except as required by law, Assembly Bio assumes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

## **Contacts**

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**ASSEMBLY BIOSCIENCES, INC.**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**  
(In thousands except for share amounts and par value)

	March 31, 2024 (Unaudited)	December 31, 2023
<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	\$ 18,749	\$ 19,841
Marketable securities	94,227	110,406
Accounts receivable from collaboration	43	43
Prepaid expenses and other current assets	4,149	3,497
<b>Total current assets</b>	<b>117,168</b>	<b>133,787</b>
Property and equipment, net	367	385
Operating lease right-of-use assets	2,036	2,339
Other assets	312	312
<b>Total assets</b>	<b>\$ 119,883</b>	<b>\$ 136,823</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities		
Accounts payable	\$ 727	\$ 461
Accrued research and development expenses	2,059	885
Other accrued expenses	2,051	5,744
Deferred revenue from a related party - short-term	32,771	30,915
Operating lease liabilities - short-term	1,145	1,220
<b>Total current liabilities</b>	<b>38,753</b>	<b>39,225</b>
Deferred revenue from a related party - long-term	47,738	55,379
Operating lease liabilities - long-term	791	1,122
<b>Total liabilities</b>	<b>87,282</b>	<b>95,726</b>
<b>Commitments and contingencies</b>		
<b>Stockholders' equity</b>		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, \$0.001 par value; 150,000,000 shares authorized as of March 31, 2024 and December 31, 2023; 5,482,752 shares issued and outstanding as of March 31, 2024 and December 31, 2023	5	5
Additional paid-in capital	827,660	826,921
Accumulated other comprehensive loss	(239)	(81)
Accumulated deficit	(794,825)	(785,748)
<b>Total stockholders' equity</b>	<b>32,601</b>	<b>41,097</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 119,883</b>	<b>\$ 136,823</b>

**ASSEMBLY BIOSCIENCES, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
(In thousands except for share and per share amounts)  
(Unaudited)

	Three Months Ended March 31,	
	2024	2023
<b>Collaboration revenue from a related party</b>	\$ 5,785	\$ —
<b>Operating expenses</b>		
Research and development	11,879	14,547
General and administrative	4,635	5,012
Total operating expenses	16,514	19,559
<b>Loss from operations</b>	<b>(10,729)</b>	<b>(19,559)</b>
<b>Other income</b>		
Interest and other income, net	1,652	609
Total other income	1,652	609
<b>Net loss</b>	<b>\$ (9,077)</b>	<b>\$ (18,950)</b>
<b>Other comprehensive loss</b>		
Unrealized (loss) gain on marketable securities	(158)	290
<b>Comprehensive loss</b>	<b>\$ (9,235)</b>	<b>\$ (18,660)</b>
Net loss per share, basic and diluted	\$ (1.66)	\$ (4.46)
Weighted average common shares outstanding, basic and diluted	5,483,313	4,251,037



