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

SCHEDULE 13D Under the Securities Exchange Act of 1934 (Amendment No. 1)

ASSEMBLY BIOSCIENCES, INC.

(Name of Issuer)

Common Stock, par value \$0.001

(Title of Class of Securities)

0453961080

(CUSIP Number)

Gilead Sciences, Inc. 333 Lakeside Drive Foster City, California 94404 650-574-3000

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

June 17, 2024

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of 240.13d-1(e), 240.13d-1(g), check the following box [].

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7(b) for other parties to whom copies are to be sent.

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("<u>Act</u>") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAME OF REPORTING PERSONS Gilead Sciences, Inc.				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) [] (b) [] 				
3	SEC USE ONLY				
4	SOURCE OF FUNDS (See Instructions) WC				
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(D) OR 2(E) []				
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware				
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 1,268,972			
	8	8 SHARED VOTING POWER 0			
	9	SOLE DISPOSITIVE POWER 1,268,972			
	10	SHARED DISPOSITIVE POWER 0			
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,268,972				
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) []				
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 19.99% (1)				
14	TYPE OF REPORTING PERSON (See Instructions) CO				

(1)Based upon 6,345,561 shares of common stock of the Issuer issued and outstanding, which 6,345,561 shares is equal to the sum of (i) 5,531,561 shares of common stock of the Issuer issued and outstanding as of June 14, 2024, as represented by the Issuer to Gilead Sciences, Inc. in the Securities Purchase Agreement, dated June 17, 2024, between the Issuer and Gilead Sciences, Inc., plus (ii) 179,500 shares of common stock issued by the Issuer to Gilead Sciences, Inc. on June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 16, 2024, between the Issuer and Armistice Capital LLC on June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 16, 2024, between the Issuer and Armistice Capital LLC.

Introduction

This Amendment No. 1 ("<u>Amendment No. 1</u>") amends and supplements the Schedule 13D filed by the Reporting Person with the Securities and Exchange Commission (the "<u>SEC</u>") on October 25, 2023 (the "<u>Schedule 13D</u>"), which relates to the common stock, par value \$0.001 per share (the "<u>Common Stock</u>"), of Assembly Biosciences, Inc., a Delaware corporation (the "<u>Issuer</u>"). Unless otherwise indicated, all capitalized terms used herein shall have the meanings set forth in the Schedule 13D and, unless amended hereby, all information previously filed remains in effect.

Item 3. Source and Amount of Funds or Other Consideration

Item 3 is amended to add the following paragraph immediately following the first paragraph:

On June 17, 2024, Gilead entered into a Securities Purchase Agreement, between the Issuer and Gilead Sciences, Inc. (the "<u>2024 Purchase Agreement</u>"), pursuant to which Gilead purchased 179,500 shares of Common Stock and a warrant to purchase 179,500 shares of Common Stock (the "<u>Warrant</u>") at a combined purchase price of \$15.46 per share of Common Stock and accompanying Warrant, which purchase occurred on June 17, 2024. The total consideration for such purchase was approximately \$2.8 million, and such consideration was obtained from the available cash resources of Gilead.

Item 4. Purpose of Transaction

Item 4 is amended to add the following immediately following the fifth paragraph:

On June 17, 2024, the Issuer and Gilead entered into: (1) Amendment No. 1 to Common Stock Purchase Agreement (the "<u>SPA Amendment</u>") and (2) Amendment No. 1 to Investor Rights Agreement (the "<u>IRA Amendment</u>" and, together with the SPA Amendment, the "<u>Amendments</u>"), which amend the Common Stock Purchase Agreement (the "<u>SPA</u>") and the Investor Rights Agreement (the "<u>IRA</u>" and together with the SPA, the "<u>Equity Agreements</u>"), respectively, entered into between the Issuer and Gilead on October 15, 2023.

The SPA Amendment (1) extends the Equity Financing Deadline (as defined in the SPA) from the date that is nine months after the date of the SPA to the date that is 12 months after the date of the SPA and (2) extends various deadlines relating to the Issuer's ability to require Gilead to purchase additional shares of Common Stock from six or nine months, as applicable, after the Issuer receives stockholder approval to six or nine months, as applicable, following the occurrence of the Issuer meeting the Company Additional Share Purchase Condition (as defined in the SPA).

The IRA Amendment extends the requirement that the Issuer use good faith efforts to complete an Equity Financing (as defined in the IRA) from nine months after October 15, 2023 to 12 months after October 15, 2023.

The foregoing descriptions of the Amendments are not complete and are subject to and qualified in their entirety by reference to the full text of such amendments, which are attached as Exhibits 99.1 and 99.2 hereto and incorporated herein by reference.

Securities Purchase Agreement and Warrants

On June 17, 2024, pursuant to the 2024 Purchase Agreement, the Issuer issued and sold to Gilead, and Gilead purchased from the Issuer, 179,500 shares of Common Stock and a warrant to purchase 179,500 shares of Common Stock at a combined purchase price of \$15.46 per share of Common Stock and accompanying Warrant. The Warrant is exercisable, in whole or in part, immediately at an exercise price of \$17.00 per share and expires on June 18, 2029. However, the Warrant cannot be exercised by Gilead if, after giving effect thereto, Gilead would beneficially own, as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, more than 19.99% of the Issuer's outstanding shares of Common Stock, subject to certain exceptions.

The foregoing descriptions of the 2024 Purchase Agreement and the Warrant are not complete and are subject to and qualified in their entirety by reference to the full text of such amendments, which are attached as Exhibits 99.3 and 99.4 hereto and incorporated herein by reference

Item 5. Interest in Securities of the Issuer

(a)-(b)

Number of shares of Common Stock beneficially owned:

Gilead	1,268,972 shares
Percent of class:	
Gilead	19.99%

The percentage ownership was calculated based upon 6,345,561 shares of common stock of the Issuer issued and outstanding, which 6,345,561 shares is equal to the sum of (i) 5,531,561 shares of common stock of the Issuer issued and outstanding as of June 14, 2024, as represented by the Issuer to Gilead in the 2024 Purchase Agreement, plus (ii) 179,500 shares of common stock issued by the Issuer to Gilead on June 17, 2024 pursuant to the 2024 Purchase Agreement, plus (iii) 634,500 shares of common stock issued by the Issuer to Armistice Capital LLC on June 17, 2024 pursuant to the Securities Purchase Agreement, dated June 16, 2024, between the Issuer and Armistice Capital LLC.

Number of shares as to which such person has:

(i)Sole power to vote or to direct the vote:

Gilead	1,268,972 shares	
(ii) Shared power to vote o	r to direct the vote:	
Gilead	0 shares	
(iii) Sole power to dispose	or to direct the disposition of:	
Gilead	1,268,972 shares	
(iv) Shared power to dispo	se or to direct the disposition of:	
Gilead	0 shares	

To the best knowledge of the Reporting Person, none of the individuals listed on Schedule I beneficially owns any of the Issuer's Common Stock.

The Reporting Person beneficially owns the Warrant to purchase 179,500 shares of Common Stock that was acquired from the Issuer on June 17, 2024. The Warrant held by the Reporting Person is subject to a limitation pursuant to which the Reporting Persons may not exercise the Warrant if such exercise would cause the Reporting Person to beneficially own Common Stock in an amount exceeding the "Beneficial Ownership Limitation" (as defined in the Warrant) then in effect. The Beneficial Ownership Limitation is subject to adjustment upon 61 days' notice by the holder of the Warrant to the Issuer and, as of the date of this Amendment No. 1, was 19.99% of the number of shares of Common Stock outstanding. As a result, none of the 179,500 shares of Common Stock underlying the Warrant are deemed to be beneficially owned by the Reporting Persons.

(c) Except as reported in this Amendment No. 1, neither the Reporting Person nor, to the best knowledge of the Reporting Person, any of the individuals listed on Schedule I have effected any transactions in the Common Stock during the past sixty (60) days.

(d) Not applicable.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationship with Respect to Securities of the Issuer

Except as disclosed in Items 3 and 4 of this Amendment No. 1, there are no contracts, arrangements, understandings or relationships (legal or otherwise) to which the Reporting Person is a party with respect to the securities of the Issuer.

Item 7. Materials to Be Filed as Exhibits

ExhibitAmendment No. 1 to Common Stock Purchase Agreement, dated June 17, 2024, between Assembly Biosciences, Inc. and Gilead Sciences, Inc.
 (incorporated by reference to Exhibit 10.3 of Assembly Biosciences, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 18, 2024)

Exhibit Amendment No. 1 to Investor Rights Agreement, dated June 17, 2024, between Assembly Biosciences, Inc. and Gilead Sciences, Inc. (incorporated
 by reference to Exhibit 10.4 of Assembly Biosciences, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 18, 2024)

Exhibit Securities Purchase Agreement, dated June 17, 2024, between Assembly Biosciences, Inc. and Gilead Sciences, Inc. (incorporated by reference to 99.3 Exhibit 10.2 of Assembly Biosciences, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 18, 2024) Exhibit Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 of Assembly Biosciences, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 18, 2024) Exhibit Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 of Assembly Biosciences, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 18, 2024)

99.4 the Securities and Exchange Commission on June 18, 2024)

SIGNATURE

After reasonable inquiry and to the best of the undersigned's knowledge and belief, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Date: June 20, 2024

GILEAD SCIENCES, INC.

By: Name: Title: /s/ Andrew D. Dickinson Andrew D. Dickinson Chief Financial Officer

Schedule I

The name and present principal occupation of each of the executive officers and directors of Gilead Sciences, Inc. are set forth below. Unless otherwise noted, each of these persons have as their business address c/o Gilead Sciences, Inc., 333 Lakeside Drive, Foster City, California 94404.

Name	Title	Citizenship	Principal Occupation and, if not employed by Gilead Sciences, Inc., Name, Principal Business and Address of Employer
Daniel P. O'Day	Chief Executive Officer, Chairman and Director	United States	*
Jacqueline K. Barton, Ph.D.	Director	United States	Professor Emerita, California Institute of Technology
Jeffrey A. Bluestone, Ph.D.	Director	United States	President and Chief Executive Officer, Sonoma Biotherapeutics
Sandra J. Horning, M.D.	Director	United States	Retired Chief Medical Officer, Roche Inc.
Kelly A. Kramer	Director	United States	Retired Executive Vice President and Chief Financial Officer, Cisco Systems, Inc.
Ted W. Love, M.D.	Director	United States	Chair of Board of Directors, Biotechnology Innovation Organization
Harish Manwani	Director	Singapore	Senior Operating Partner, Blackstone
Javier J. Rodriguez	Director	Mexico	Chief Executive Officer, DaVita, Inc.
Anthony Welters	Director	United States	Chairman and Chief Executive Officer, CINQ Care
Andrew D. Dickinson	Chief Financial Officer	United States	*
Johanna Mercier	Chief Commercial Officer	United States	*
Merdad V. Parsey, M.D., Ph.D.	Chief Medical Officer	United States	*
Deborah H. Telman	Executive Vice President, Corporate Affairs and General Counsel	United States	*

* The present principal occupation for each of these individuals is officer of Gilead Sciences, Inc. and officer, trustee and/or director of other affiliated entities.