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

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. 7)*

Synlogic, Inc.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

87166L209

(CUSIP Number)

**OrbiMed Advisors LLC
OrbiMed Capital GP VI LLC
OrbiMed Genesis GP LLC**

**601 Lexington Avenue, 54th Floor
New York, NY 10022
Telephone: (212) 739-6400**

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

October 3, 2023

(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(f) or 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 ("Act") 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).

CUSIP No. 87166L209

1	NAME OF REPORTING PERSON OrbiMed Advisors LLC		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3	SEC USE ONLY		
4	SOURCE OF FUNDS (See Instructions) AF		
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>		
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0	
	8	SHARED VOTING POWER 401,998	
	9	SOLE DISPOSITIVE POWER 0	
	10	SHARED DISPOSITIVE POWER 401,998	
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 401,998		
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 4.7%*		
14	TYPE OF REPORTING PERSON (See Instructions) IA		

*This percentage is calculated based upon 8,496,185 shares of common stock, par value \$0.001 per share, outstanding of Synlogic, Inc. (the "Issuer") as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission on October 2, 2023.

CUSIP No. 87166L209

1	NAME OF REPORTING PERSON OrbiMed Capital GP VI LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 290,885
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 290,885
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 290,885	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 3.4%*	
14	TYPE OF REPORTING PERSON (See Instructions) OO	

*This percentage is calculated based upon 8,496,185 shares of common stock, par value \$0.001 per share, outstanding of Synlogic, Inc. (the "Issuer") as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission on October 2, 2023.

CUSIP No. 87166L209

1	NAME OF REPORTING PERSON OrbiMed Genesis GP LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 111,113
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 111,113
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 111,113	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 1.3%*	
14	TYPE OF REPORTING PERSON (See Instructions) OO	

*This percentage is calculated based upon 8,496,185 shares of common stock, par value \$0.001 per share, outstanding of Synlogic, Inc. (the "Issuer") as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the Securities and Exchange Commission on October 2, 2023.

Item 1. Security and Issuer

This Amendment No. 7 (“Amendment No. 7”) to Schedule 13D supplements and amends the statement on Schedule 13D (the “Statement”) originally filed by OrbiMed Advisors LLC, OrbiMed Capital GP VI LLC, and Samuel D. Isaly with the Securities and Exchange Commission (the “SEC”) on September 7, 2017, as amended by Amendment No. 1 filed with the SEC on January 26, 2018, Amendment No. 2 filed with the SEC on April 12, 2018, Amendment No. 3 filed with the SEC on August 12, 2019, Amendment No. 4 filed with the SEC on March 29, 2021, Amendment No. 5 filed with the SEC on April 22, 2021, and Amendment No. 6 filed with the SEC on September 29, 2021. This Amendment No. 7 relates to the common stock, par value \$0.001 per share (the “Shares”), of Synlogic, Inc., a Delaware corporation (the “Issuer”), with its principal offices located at 301 Binney St., Suite 402, Cambridge, Massachusetts 02142. The Shares are listed on The Nasdaq Capital Market under the ticker symbol “SYBX”. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

On September 27, 2023, the Issuer effected a reverse stock split of the Shares at a ratio of 1-for-15 (the “Reverse Stock Split”). As a result of the Reverse Stock Split, every 15 Shares were automatically converted into one Share, without any change in the par value per Share. Stockholders who would otherwise be entitled to a fractional Share as a result of the Reverse Stock Split were entitled to receive a cash payment in lieu thereof. All Share numbers in this Amendment No. 7 are presented on a post Reverse Stock Split basis.

On October 3, 2023, the Issuer completed an underwritten public offering of 3,921,928 Shares, pre-funded warrants to purchase up to 3,472,435 Shares, and accompanying common stock warrants to purchase up to 7,394,363 Shares (the “Offering”). As a result of the Offering, the Reporting Persons (as defined below) may no longer be deemed the beneficial owners of more than 5% of the outstanding Shares. Accordingly, this Amendment No. 7 constitutes the final amendment to the Statement and an exit filing for the Reporting Persons.

Item 2. Identity and Background

(a) This Amendment No. 7 is being filed by OrbiMed Advisors LLC (“OrbiMed Advisors”), OrbiMed Capital GP VI LLC (“GP VI”), and OrbiMed Genesis GP LLC (“OrbiMed Genesis”) (collectively, the “Reporting Persons”).

(b) — (c), (f) GP VI, a limited liability company organized under the laws of Delaware, is the general partner of a limited partnership, as more particularly described in Item 6 below. OrbiMed GP has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

OrbiMed Genesis, a limited liability company organized under the laws of Delaware, is the general partner of a limited partnership, as more particularly described in Item 6 below. OrbiMed Genesis has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

OrbiMed Advisors, a limited liability company organized under the laws of Delaware and a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the managing member of GP VI and OrbiMed Genesis, as more particularly described in Item 6 below. OrbiMed Advisors has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

The directors and executive officers of OrbiMed Advisors, GP VI, and OrbiMed Genesis are set forth on Schedules I, II, and III, attached hereto. Schedules I, II, and III set forth the following information with respect to each such person:

- (i) name;
 - (ii) business address;
 - (iii) present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted; and
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(iv) citizenship.

(d) – (e) During the last five years, neither the Reporting Persons nor any person named in Schedule I, II or III have been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration

Not applicable.

Item 4. Purpose of Transaction

The Reporting Persons from time to time intend to review their investment in the Issuer on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Issuer's Shares in particular, as well as other developments and other investment opportunities. Based upon such review, the Reporting Persons will take such actions in the future as the Reporting Persons may deem appropriate in light of the circumstances existing from time to time. If the Reporting Persons believe that further investment in the Issuer is attractive, whether because of the market price of the Shares or otherwise, they may acquire Shares or other securities of the Issuer either in the open market or in privately negotiated transactions. Similarly, depending on market and other factors, the Reporting Persons may determine to dispose of some or all of the Shares currently owned by the Reporting Persons or otherwise acquired by the Reporting Persons either in the open market or in privately negotiated transactions.

Except as set forth in this Statement, the Reporting Persons have not formulated any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer or the disposition of securities of the Issuer; (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries; (c) a sale or transfer of a material amount of the assets of the Issuer or any of its subsidiaries; (d) any change in the present Board of Directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board; (e) any material change in the Issuer's capitalization or dividend policy of the Issuer; (f) any other material change in the Issuer's business or corporate structure; (g) any change in the Issuer's charter or bylaws or other instrument corresponding thereto or other action which may impede the acquisition of control of the Issuer by any person; (h) causing a class of the Issuer's securities to be deregistered or delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association; (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act; or (j) any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer

(a)—(b) The following disclosure is based upon 8,496,185 Shares outstanding of Issuer as set forth in the Issuer's Rule 424(b)(4) Prospectus filed with the SEC on October 2, 2023.

As of the date of this filing, OrbiMed Private Investments VI, LP ("OPI VI"), a limited partnership organized under the laws of Delaware, holds 290,885 Shares, constituting approximately 3.4% of the issued and outstanding Shares. GP VI is the general partner of OPI VI, pursuant to the terms of the limited partnership agreement of OPI VI, and OrbiMed Advisors is the managing member of GP VI, pursuant to the terms of the limited liability company agreement of GP VI. As a result, OrbiMed Advisors and GP VI share power to direct the vote and disposition of the Shares held by OPI VI and may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by OPI VI. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the Shares held by OPI VI.

In addition, OrbiMed Advisors and GP VI, pursuant to their authority under the limited partnership agreement of OPI VI, caused OPI VI to enter into the agreements referred to in Item 6 below.

As of the date of this filing, OrbiMed Genesis Master Fund, L.P. ("Genesis"), a limited partnership organized under the laws of the Cayman Islands, holds 111,113 Shares constituting approximately 1.3% of the issued and outstanding Shares. OrbiMed Genesis is the general partner of Genesis, pursuant to the terms of the limited partnership agreement of Genesis, and OrbiMed Advisors is the managing member of OrbiMed Genesis, pursuant to the terms of the limited liability company agreement of OrbiMed Genesis. As a result, OrbiMed Advisors and OrbiMed Genesis share power to direct the vote and disposition of the Shares held by Genesis and may be deemed, directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Shares held by Genesis. OrbiMed Advisors exercises this investment and voting power through a management committee comprised of Carl L. Gordon, Sven H. Borho, and W. Carter Neild, each of whom disclaims beneficial ownership of the Shares held by Genesis.

In addition, OrbiMed Advisors and OrbiMed Genesis, pursuant to their authority under the limited partnership agreement of Genesis, caused Genesis to enter into the agreements referred to in Item 6 below.

- (c) The Reporting Persons have not effected any transactions in the Shares 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

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, GP VI is the general partner of OPI VI, pursuant to the terms of the limited partnership agreement of OPI VI. OrbiMed Advisors is the managing member of GP VI, pursuant to the terms of the limited liability company agreement of GP VI. Pursuant to these agreements and relationships, OrbiMed Advisors and GP VI have discretionary investment management authority with respect to the assets of OPI VI. Such authority includes the power of GP VI to vote and otherwise dispose of securities purchased by OPI VI. The number of Shares attributable to OPI VI is 290,885. OrbiMed Advisors and GP VI may each be considered to hold indirectly 290,885 Shares.

In addition to the relationships between the Reporting Persons described in Items 2 and 5 above, OrbiMed Genesis is the general partner of Genesis, pursuant to the terms of the limited partnership agreement of Genesis. OrbiMed Advisors is the managing member of OrbiMed Genesis, pursuant to the terms of the limited liability company agreement of OrbiMed Genesis. Pursuant to these agreements and relationships, OrbiMed Advisors and OrbiMed Genesis have discretionary investment management authority with respect to the assets of Genesis. Such authority includes the power to vote and otherwise dispose of securities held by Genesis. The number of outstanding Shares of the Issuer attributable to Genesis is 111,113. OrbiMed Advisors and OrbiMed Genesis may each be considered to hold indirectly 111,113 Shares.

Other than as described in this Amendment No. 6, to the best of the Reporting Persons' knowledge, there are no other contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer.

Item 7. Materials to Be Filed as Exhibits

Exhibit	Description
1.	Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Genesis GP LLC, and OrbiMed Capital GP VI LLC.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: October 4, 2023

ORBIMED ADVISORS LLC

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member

ORBIMED CAPITAL GP VI LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member of OrbiMed Advisors LLC

ORBIMED GENESIS GP LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member of OrbiMed Advisors LLC

SCHEDULE I

The names and present principal occupations of each of the executive officers and directors of OrbiMed Advisors LLC are set forth below. Unless otherwise noted, each of these persons is a United States citizen and has a business address of 601 Lexington Avenue, 54th Floor, New York, NY 10022.

<u>Name</u>	<u>Position with Reporting Person</u>	<u>Principal Occupation</u>
Carl L. Gordon	Member	Member OrbiMed Advisors LLC
Sven H. Borho German and Swedish Citizen	Member	Member OrbiMed Advisors LLC
W. Carter Neild	Member	Member OrbiMed Advisors LLC
Geoffrey C. Hsu	Member	Member OrbiMed Advisors LLC
C. Scotland Stevens	Member	Member OrbiMed Advisors LLC
David P. Bonita	Member	Member OrbiMed Advisors LLC
Peter A. Thompson	Member	Member OrbiMed Advisors LLC
Matthew S. Rizzo	Member	Member OrbiMed Advisors LLC
Trey Block	Chief Financial Officer	Chief Financial Officer OrbiMed Advisors LLC

SCHEDULE II

The business and operations of OrbiMed Capital GP VI LLC are managed by the executive officers and directors of its managing member, OrbiMed Advisors LLC, set forth in Schedule I attached hereto.

SCHEDULE III

The business and operations of OrbiMed Genesis GP LLC are managed by the executive officers and directors of its managing member, OrbiMed Advisors LLC, set forth in Schedule I attached hereto.

EXHIBIT INDEX

Exhibit	Description
1.	Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Genesis GP LLC, and OrbiMed Capital GP VI LLC.

JOINT FILING AGREEMENT

The undersigned hereby agree that the Amendment No. 7 to Schedule 13D, dated October 3, 2023, with respect to the common stock of Synlogic, Inc. is filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended. Each of the undersigned agrees to be responsible for the timely filing of this Statement, and for the completeness and accuracy of the information concerning itself contained therein. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 4th day of October 2023.

ORBIMED ADVISORS LLC

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member

ORBIMED CAPITAL GP VI LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member of OrbiMed Advisors LLC

ORBIMED GENESIS GP LLC

By: ORBIMED ADVISORS LLC, its managing member

By: /s/ Carl L. Gordon
Name: Carl L. Gordon
Title: Member of OrbiMed Advisors LLC