UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-A	
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FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

SYNLOGIC, INC.

(Exact name of registrant as specified in its charter)

Delaware 26-1824804 (State of incorporation or organization) (I.R.S. Employer Identification No.)

301 Binney St.
Suite 402
Cambridge, MA
(Address of principal executive offices)

02142 (Zip Code)

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

Title of each class to be so registered
Preferred Stock Purchase Rights

Name of each exchange on which each class is to be registered

The Nasdaq Stock Market, LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box. \Box

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box. \Box

Securities Act registration statement file number to which this form relates: N/A (if applicable)

Securities to be registered pursuant to Section 12(g) of the Act: N/A (Title of class)

Item 1. Description of Registrant's Securities to be Registered.

On February 20, 2024, the Board of Directors of Synlogic, Inc. (the "Company") declared a dividend of one preferred share purchase right (a "Right"), payable on March 1, 2024, for each share of common stock, par value \$0.001 per share ("Common Stock"), of the Company outstanding on March 1, 2024 to the stockholders of record on that date and for certain warrants to purchase Common Stock outstanding on March 1, 2024. In connection with the distribution of the Rights, the Company entered into a Rights Agreement (the "Rights Agreement"), dated as of February 20, 2024, between the Company and Equiniti Trust Company LLC, as rights agent.

Each Right entitles the registered holder to purchase from the Company one one-thousandth of a share of Series A Junior Participating Preferred Stock, par value \$0.001 per share, of the Company (the "Preferred Shares") at a price of \$12.00 per one one-thousandth of a Preferred Share represented by a Right (the "Purchase Price"), subject to adjustment.

The Rights are in all respects subject to and governed by the provisions of the Rights Agreement, which is incorporated herein by reference. The description of the Rights is incorporated herein by reference to the description set forth under Items 1.01 and 5.03 of the Company's Current Report on Form 8-K filed on February 20, 2024 and is qualified in its entirety by reference to the full text of the Rights Agreement.

Item 2. Exhibits.

No.	Description of Exhibit
3.1	Certificate of Designation of Series A Junior Participating Preferred Stock of Synlogic, Inc., as filed with the Secretary of State of the State of Delaware on February 20, 2024 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 20, 2024).
4.1	Rights Agreement, dated as of February 20, 2024, between Synlogic, Inc. and Equiniti Trust Company LLC, as rights agent (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on February 20, 2024).

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

SYNLOGIC, INC.

By: /s/ Aoife Brennan

Name: Aoife Brennan, M.B., Ch.B.

Title: President and Chief Executive Officer

Date: February 20, 2024