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

**FORM S-8
REGISTRATION STATEMENT**
*Under
The Securities Act of 1933*

Lyra Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

84-1700838
(I.R.S. Employer
Identification No.)

**480 Arsenal Way
Watertown, MA 02472**
(Address of Principal Executive Offices) (Zip Code)
Lyra Therapeutics, Inc. 2020 Incentive Award Plan
(Full title of the plan)

Maria Palasis, Ph.D.
President and Chief Executive Officer
Lyra Therapeutics, Inc.
480 Arsenal Way
Watertown, MA 02472
(Name and address of agent for service)

(617) 393-4600
(Telephone number, including area code, of agent for service)

Copies to:

Peter N. Handrinos
Wesley Holmes

Latham & Watkins LLP
200 Clarendon Street, 27th Floor
Boston, MA 02116
(617) 948-6000

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

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
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 7(a)(2)(B) of the Securities Act.

EXPLANATORY NOTE

This Registration Statement on Form S-8 (the “*Registration Statement*”) is being filed with the Securities and Exchange Commission (the “*Commission*”) for the purpose of registering an additional 2,620,600 shares of Lyra Therapeutics, Inc.’s (the “*Registrant*”) common stock, \$0.001 par value per share (the “*Common Stock*”) that may become issuable under the Lyra Therapeutics, Inc. 2020 Incentive Award Plan (the “*2020 Incentive Plan*”) for which registration statements of the Registrant on Form S-8 (File Nos. [333-237973](#), [333-270949](#) and [333-278164](#)) are effective.

Pursuant to General Instruction E of Form S-8, the contents of the above referenced prior registration statements on Form S-8, File Nos. 333-237973, 333-270949 and 333-278164, previously filed with respect to the 2020 Incentive Plan, are incorporated by reference herein to the extent not modified or superseded hereby or by any subsequently filed document, which is incorporated by reference herein, except for Item 8, which is being updated by this Registration Statement.

Item 8. Exhibits.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
4.1	Restated Certificate of Incorporation of Lyra Therapeutics, Inc., dated May 5, 2020 and the Certificate of Amendment to the Restated Certificate of Incorporation of Lyra Therapeutics, Inc., dated June 13, 2024 (incorporated by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K (File No. 001-39273), filed with the Commission on June 18, 2024).
4.2	Amended and Restated Bylaws of Lyra Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant’s Current Report on Form 8-K (File No. 001-39273), filed with the Commission on December 18, 2023).
5.1+	Opinion of Latham & Watkins LLP, counsel to the Registrant.
23.1+	Consent of BDO USA, P.C., Independent Registered Public Accounting Firm.
23.2+	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
24.1+	Power of Attorney (included on signature page below).
99.1	Lyra Therapeutics, Inc. 2020 Incentive Award Plan (incorporated by reference to Exhibit 10.3 to Amendment No. 1 to the Registrant’s Registration Statement on Form S-1 (File No. 333-236962), filed on April 27, 2020).
107.1+	Filing Fee Table.
+	Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Watertown, Commonwealth of Massachusetts, on March 13, 2025.

LYRA THERAPEUTICS, INC.

By: /s/ Maria Palasis, Ph.D.

Maria Palasis, Ph.D.

President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Lyra Therapeutics, Inc., hereby severally constitute and appoint Maria Palasis, Ph.D. and Jason Cavalier, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Maria Palasis, Ph.D.</u> Maria Palasis, Ph.D.	President, Chief Executive Officer and Director (principal executive officer)	March 13, 2025
<u>/s/ Jason Cavalier</u> Jason Cavalier	Chief Financial Officer and Treasurer (principal financial officer and principal accounting officer)	March 13, 2025
<u>/s/ Harlan W. Waksal, M.D.</u> Harlan W. Waksal, M.D.	Executive Chair and Chairperson of the Board	March 13, 2025
<u>/s/ C. Ann Merrifield</u> C. Ann Merrifield	Director	March 13, 2025
<u>/s/ W. Bradford Smith</u> W. Bradford Smith	Director	March 13, 2025
<u>/s/ Nancy Snyderman, M.D., FACS</u> Nancy Snyderman, M.D., FACS	Director	March 13, 2025
<u>/s/ James R. Tobin</u> James R. Tobin	Director	March 13, 2025

200 Clarendon Street
 Boston, Massachusetts 02116
 Tel: +1.617.948.6000 Fax: +1.617.948.6001
 www.lw.com

LATHAM & WATKINS LLP

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Madrid	

March 13, 2025

Lyra Therapeutics, Inc.
 480 Arsenal Way
 Watertown, MA 02472

Re: Registration Statement on Form S-8

To the addressee set forth above:

We have acted as special counsel to Lyra Therapeutics, Inc., a Delaware corporation (the “*Company*”), in connection with the preparation and filing by the Company with the Securities and Exchange Commission (the “*Commission*”) of a registration statement on Form S-8 (the “*Registration Statement*”) under the Securities Act of 1933, as amended (the “*Act*”), relating to the issuance by the Company of up to 2,620,600 shares of common stock of the Company, \$0.001 par value per share (the “*Shares*”), which may be issued pursuant to the Lyra Therapeutics, Inc. 2020 Incentive Award Plan (the “*Plan*”). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the prospectus forming a part thereof, other than as expressly stated herein with respect to the issuance of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon the foregoing and upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein only as to the General Corporation Law of the State of Delaware (the “*DGCL*”), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the recipients thereof, and have been issued by the Company for legal consideration in excess of par value in the circumstances contemplated by the Plan, assuming in each case that the individual grants or awards under the Plan are duly authorized by all necessary corporate action and duly granted or awarded and exercised in accordance with the requirements of law and the Plan (and the agreements and awards duly adopted thereunder and

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in accordance therewith), the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Sincerely,

/s/ Latham & Watkins LLP

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated March 13, 2025, relating to the consolidated financial statements of Lyra Therapeutics, Inc. (the “Company”) appearing in the Company’s Annual Report on Form 10-K for the year ended December 31, 2024. Our report contains an explanatory paragraph regarding the Company’s ability to continue as a going concern.

/s/ BDO USA, P.C.

Boston, Massachusetts
March 13, 2025

CALCULATION OF FILING FEE TABLE

FORM S-8

(Form Type)

LYRA THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Plan	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
2020 Incentive Award Plan	Equity	Common Stock, par value \$0.001 per share	Rule 457(c) and 457(h)	2,620,600 (2)	\$0.1835 (3)	\$480,880.10	\$153.10 per million dollars	\$73.63
Total Offering Amounts (4)						\$480,880.10		\$73.63
Total Fee Offsets								\$0
Net Fee Due								\$73.63

- In accordance with Rule 416(a) under the Securities Act of 1933, as amended ("*Securities Act*"), this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued under the Lyra Therapeutics, Inc. 2020 Incentive Award Plan (the "*Incentive Plan*") to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- Consists of 2,620,600 shares of the Registrant's Common Stock that are or may become issuable under the Incentive Plan pursuant to its terms.
- Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the Common Stock as reported on the Nasdaq Capital Market on March 11, 2025.
- The Registrant does not have any fee offsets.