
**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. 2022 Employment Inducement Award Plan
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. Handrinios
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 350,000 shares of Lyra Therapeutics, Inc.’s (the “*Registrant*”) common stock, \$0.001 par value per share (the “*Common Stock*”), issuable under the Lyra Therapeutics, Inc. 2022 Employment Inducement Award Plan (as amended and restated, the “*2022 Inducement Plan*”) for which registration statements of the Registrant on Form S-8 ([File Nos. 333-263402](#) and [333-270949](#)) are effective and an additional 2,288,582 shares of the Registrant’s 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](#) and [333-270949](#)) 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. 333-263402, 333-237973 and 333-270949, previously filed with respect to the 2022 Inducement Plan and the 2020 Incentive Plan, respectively, 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.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed by the Registrant with the Commission pursuant to the Securities Act and the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), as applicable, are hereby incorporated by reference in, and shall be deemed to be a part of, this Registration Statement:

(a) The Registrant's Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2023 (File No. 001-39273); and

(b) The Registrant's Registration Statement on [Form 8-A](#) filed with the Commission on April 27, 2020 pursuant to Section 12(b) of the Securities Act, relating to the Registrant's Common Stock, as updated by "Description of Securities" filed as [Exhibit 4.5](#) to the Registrant's Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2022, and any amendment or report filed for the purpose of updating such description.

All reports and other documents subsequently filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement, which indicates that all securities offered hereby have been sold or which deregisters all such securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents or reports.

Any statement contained in this Registration Statement, in an amendment hereto or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed amendment to this Registration Statement or in any document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement, except as to such specific section of such statements as set forth therein.

Under no circumstances shall any information furnished under Item 2.02 and/or Item 7.01 of Current Report on Form 8-K and any corresponding exhibits thereto be deemed incorporated herein by reference unless such Current Report on Form 8-K expressly provides to the contrary.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors, and other corporate agents.

As permitted by Delaware law, our restated certificate of incorporation provides that, to the fullest extent permitted by Delaware law, no director will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director. Pursuant to Delaware law such protection would be not available for liability:

- for any breach of a duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- for any transaction from which the director derived an improper benefit; or
- for an act or omission for which the liability of a director is expressly provided by an applicable statute, including unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law.

Our amended and restated bylaws further provide that we must indemnify our directors and officers to the fullest extent permitted by Delaware law. Our amended and restated bylaws also authorize us to indemnify any of our employees or agents and permit us to secure insurance on behalf of any officer, director, employee or agent for any liability arising out of his or her action in that capacity, whether or not Delaware law would otherwise permit indemnification.

In addition, our amended and restated bylaws also provide that we are required to advance expenses to our directors and officers as incurred in connection with legal proceedings against them for which they may be indemnified and that the rights conferred in the amended and restated bylaws are not exclusive.

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us to indemnify each director and officer to the fullest extent permitted by Delaware law, our restated certificate of incorporation and our amended and restated bylaws, for expenses such as, among other things, attorneys' fees, judgments, fines, and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action by or in our right, arising out of the person's services as our director or executive officer or as the director or executive officer of any subsidiary of ours or any other company or enterprise to which the person provides services at our request.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Description of Exhibit
4.1	Restated Certificate of Incorporation 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 May 5, 2020).
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. 2022 Employment Inducement Award Plan as Amended and Restated, Effective December 12, 2022 (incorporated by reference to Exhibit 10.4.6 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2022 (File No. 001-39273), filed with the Commission on March 29, 2023).
99.2	Amendment No. 1 to Lyra Therapeutics, Inc. 2022 Employment Inducement Award Plan, as Amended and Restated Effective December 12, 2022, dated October 5, 2023 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the fiscal year ended December 31, 2023 (File No. 001-39273), filed with the Commission on November 7, 2023).
99.3	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.

Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement; *provided, however*, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the Registration Statement is on Form S-8, and

the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement;

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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 22, 2024.

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 22, 2024
<u>/s/ Jason Cavalier</u> Jason Cavalier	Chief Financial Officer and Treasurer (principal financial officer and principal accounting officer)	March 22, 2024
<u>/s/ Harlan W. Waksal, M.D.</u> Harlan W. Waksal, M.D.	Executive Chair and Chairperson of the Board	March 22, 2024
<u>/s/ Michael Altman</u> Michael Altman	Director	March 22, 2024
<u>/s/ Edward T. Anderson</u> Edward T. Anderson	Director	March 22, 2024
<u>/s/ C. Ann Merrifield</u> C. Ann Merrifield	Director	March 22, 2024
<u>/s/ Konstantin Poukalov</u> Konstantin Poukalov	Director	March 22, 2024
<u>/s/ W. Bradford Smith</u> W. Bradford Smith	Director	March 22, 2024
<u>/s/ Nancy Snyderman, M.D., FACS</u> Nancy Snyderman, M.D., FACS	Director	March 22, 2024
<u>/s/ James R. Tobin</u> James R. Tobin	Director	March 22, 2024

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LATHAM & WATKINS^{LLP}

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March 22, 2024

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 350,000 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. 2022 Employment Inducement Award Plan (as amended and restated, the “*Inducement Plan*”) and up to 2,288,582 Shares, which may be issued pursuant to the Lyra Therapeutics, Inc. 2020 Incentive Award Plan (the “*Incentive Plan*” and, together with the Inducement Plan, the “*Plans*”). 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.

LATHAM & WATKINS LLP

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 Plans, assuming in each case that the individual grants or awards under the Plans are duly authorized by all necessary corporate action and duly granted or awarded and exercised in accordance with the requirements of law and the Plans (and the agreements and awards duly adopted thereunder and 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 22, 2024, 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, 2023. 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 22, 2024

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
2022 Employment Inducement Award Plan	Equity	Common Stock, par value \$0.001 per share	Rule 457(c) and 457(h)	350,000 ⁽²⁾	\$5.74 ⁽³⁾	\$2,009,000.00	\$147.60 per million dollars	\$296.53
2020 Incentive Award Plan	Equity	Common Stock, par value \$0.001 per share	Rule 457(c) and 457(h)	2,288,582 ⁽²⁾	\$5.74 ⁽³⁾	\$13,136,460.68	\$147.60 per million dollars	\$1,938.95
	Total Offering Amounts ⁽⁴⁾					\$15,145,460.68		\$2,235.47
	Total Fee Offsets							\$—
	Net Fee Due							\$2,235.47

- 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. 2022 Employment Inducement Award Plan (as amended and restated, the "*Inducement Plan*") and the Lyra Therapeutics, Inc. 2020 Incentive Award Plan (the "*Incentive Plan*") to prevent dilution resulting from stock splits, stock dividends or similar transactions. In addition, pursuant to Rule 416(c) under the Securities Act, this registration statement also covers an indeterminate amount of interests to be offered or sold pursuant to the Inducement Plan.
- Consists of 350,000 shares of the Registrant's common stock ("*Common Stock*") that are issuable under the Inducement Plan pursuant to its terms and 2,288,582 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 Global Select Market on March 15, 2024.
- The Registrant does not have any fee offsets.