

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 10, 2024

RHYTHM PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-38223
(Commission
File Number)

46-2159271
(IRS Employer
Identification Number)

222 Berkeley Street
12th Floor
Boston, MA 02116

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **(857) 264-4280**

N/A

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---|-------------------|--|
| Common Stock, \$0.001 par value per share | RYTM | The Nasdaq Stock Market LLC (Nasdaq Global Market) |

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 13(a) of the Exchange Act.

Item 8.01. Other Events.

On July 10, 2024, Rhythm Pharmaceuticals, Inc. (the “Company”) filed with the Securities and Exchange Commission (the “SEC”) a prospectus supplement to the prospectus included in the Company’s registration statement on Form S-3ASR (File No. 333-270233), filed with the SEC on March 2, 2023 (the “Registration Statement”), covering the resale from time to time by certain stockholders of up to an aggregate of 3,124,995 shares (the “Shares”) of the Company’s common stock, par value \$0.001 per share, to satisfy registration rights that the Company granted to such stockholders in connection with the Company’s issuance and sale of 150,000 shares of the Company’s Series A Convertible Preferred Stock, par value \$0.001 per share, for an aggregate purchase price of \$150,000,000 on April 15, 2024.

A copy of the legal opinion of Latham & Watkins LLP relating to the validity of the Shares is filed herewith as Exhibit 5.1 and is incorporated herein by reference, and is filed with reference to, and is hereby incorporated by reference into, the Registration Statement.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

| Exhibit No. | Description |
|------------------------|--|
| 5.1 | Opinion of Latham & Watkins LLP. |
| 23.1 | Consent of Latham & Watkins LLP (included in Exhibit 5.1). |
| 104 | Cover page interactive data file (embedded within the inline XBRL document) |

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

RHYTHM PHARMACEUTICALS, INC.

Date: July 10, 2024

By: /s/ Hunter Smith
Hunter Smith
Chief Financial Officer

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 Boston, Massachusetts 02116
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LATHAM & WATKINS LLP

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July 10, 2024

Rhythm Pharmaceuticals, Inc.
 222 Berkeley Street, 12th Floor
 Boston, MA 02116

Re: Registration Statement on Form S-3 (No. 333-270233); 3,124,995 shares of Common Stock, par value \$0.001 per share

To the addressee set forth above:

We have acted as special counsel to Rhythm Pharmaceuticals, Inc., a Delaware corporation (the “*Company*”), in connection with the resale from time to time by the selling stockholders (the “*Selling Stockholders*”) named in the Registration Statement (as defined below) of 3,124,995 shares (the “*Shares*”) of the Company’s common stock, par value \$0.001 per share (the “*Common Stock*”). The Shares will become issuable upon the conversion of the Selling Stockholders’ 150,000 shares of the Company’s Series A Convertible Preferred Stock, par value \$0.001 per share, pursuant to their terms (the “*Series A Preferred Shares*”). The Shares are included in a registration statement on Form S-3 under the Securities Act of 1933, as amended (the “*Act*”), filed with the Securities and Exchange Commission (the “*Commission*”) on March 2, 2023 (Registration No. 333-270233) (as amended, the “*Registration Statement*”), a base prospectus dated March 2, 2023 included in the Registration Statement at the time it originally became effective (the “*Base Prospectus*”), and a prospectus supplement dated July 10, 2024 filed with the Commission pursuant to Rule 424(b) under the Act (the “*Prospectus Supplement*,” and together with the Base Prospectus, the “*Prospectus*”). 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, other than as expressly stated herein with respect to the issue 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 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 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 Selling Stockholders, and have been issued by the Company in the circumstances contemplated by the Series A Preferred Shares, the issue 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.

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In rendering the foregoing opinion, we have assumed that (i) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL, (ii) the Series A Preferred Shares have been duly authorized, validly issued and fully paid and constitute valid and legally binding obligations of the Company, and (iii) upon the issue of any of the Shares, the total number of shares of Common Stock then issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under its Amended and Restated Certificate of Incorporation.

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 Company's Current Report on Form 8-K filed with the Commission on July 10, 2024 and to the reference to our firm in the Prospectus Supplement under the heading "Legal Matters." 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
