

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): February 29, 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 1.01 Entry into a Material Definitive Agreement.**

As previously reported, on November 2, 2021, Rhythm Pharmaceuticals, Inc. (the “Company”) entered into a Sales Agreement with Cowen and Company, LLC (“TD Cowen”) to sell shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”), from time to time through TD Cowen acting as sales agent, having a maximum aggregate offering price of \$100,000,000. The issuances and sales under the Sales Agreement were made pursuant to the Company’s registration statement on Form S-3 (File No. 333-270233) (the “Registration Statement”) filed with the Securities and Exchange Commission (the “SEC”) on March 2, 2023, and a prospectus supplement and base prospectus included in the Registration Statement (the “Base Prospectus”), each dated March 2, 2023 (together, the “Prior Prospectus”). As of February 29, 2024, the Company had offered and sold shares of Common Stock pursuant to the Sales Agreement for aggregate gross proceeds to the Company of approximately \$50.0 million.

On February 29, 2024, the Company and TD Cowen entered into Amendment No. 1 to Sales Agreement (the “Amendment”) to increase the aggregate offering price of the shares of Common Stock that may be issued and sold pursuant to the Sales Agreement to \$200,000,000 (excluding the aggregate offering price of shares of Common Stock issued and sold pursuant to the Sales Agreement prior to February 29, 2024). In connection with the Amendment, on February 29, 2024, the Company filed with the SEC a prospectus supplement, dated February 29, 2024, which, combined with the Base Prospectus (together, the “New Prospectus”), amended the Prior Prospectus in its entirety. The issuances and sales under the Sales Agreement, as amended by the Amendment, will be made pursuant to the Registration Statement and the New Prospectus.

The foregoing description of the Amendment is not complete and is qualified in its entirety by reference to the full text of such amendment, a copy of which is filed as Exhibit 1.1 to this Current Report on Form 8-K (the “Current Report”) and is incorporated herein by reference.

The legal opinion of Latham & Watkins LLP relating to the shares of Common Stock being sold pursuant to the Sales Agreement, as amended by the Amendment, is filed as Exhibit 5.1 to this Current Report.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

<b>Exhibit No.</b>	<b>Exhibit Description</b>
<a href="#">1.1</a>	<a href="#">Amendment No. 1 to Sales Agreement, dated as of February 29, 2024, between Rhythm Pharmaceuticals, Inc. and Cowen and Company, LLC.</a>
<a href="#">5.1</a>	<a href="#">Opinion of Latham &amp; Watkins LLP</a>
<a href="#">23.1</a>	<a href="#">Consent of Latham &amp; Watkins LLP (included in Exhibit 5.1).</a>
104	Cover Page Interactive Data File (embedded within the inline XBRL document)

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**SIGNATURES**

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

**RHYTHM PHARMACEUTICALS, INC.**

Date: February 29, 2024

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

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**RHYTHM PHARMACEUTICALS, INC.**  
**COMMON STOCK**  
**AMENDMENT NO. 1 TO SALES AGREEMENT**

February 29, 2024

Cowen and Company, LLC  
599 Lexington Avenue  
New York, NY 10022

Ladies and Gentlemen:

Reference is made to the Sales Agreement, dated November 2, 2021 (the "**Agreement**"), by and between Rhythm Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and Cowen and Company, LLC ("**Cowen**"). The Company and Cowen (collectively, the "**Parties**") wish to amend the Agreement, pursuant to Section 15 of the Agreement, to increase the aggregate offering price under the Agreement (this "**Amendment**"). The Parties therefore hereby agree as follows:

1. On the date hereof, the Company has filed or will file a Prospectus Supplement relating to the offering of up to \$200,000,000 of Common Stock (the "**February 2024 ATM Prospectus Supplement**"), to the base prospectus, dated March 2, 2023, contained in the registration statement on Form S-3 (Registration No. 333-270233). The February 2024 ATM Prospectus Supplement shall update and amend the prospectus supplement filed by the Company on March 2, 2023 relating to the Common Stock offered pursuant to the Agreement in its entirety.

2. Issuance and Sale of Shares. The first paragraph of Section 1 of the Agreement is hereby amended and restated in its entirety to read as follows:

'The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through Cowen, acting as agent and/or principal, shares (the "**Placement Shares**") of the Company's common stock, par value \$0.001 per share (the "**Common Stock**"), having an aggregate offering price of up to \$200,000,000, excluding the aggregate offering price of Placement Shares issued and sold prior to February 29, 2024 pursuant to this Agreement. Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitation set forth in this Section 1 on the number of shares of Common Stock issued and sold under this Agreement shall be the sole responsibility of the Company, and Cowen shall have no obligation in connection with such compliance. The issuance and sale of Common Stock through Cowen will be effected pursuant to the Registration Statement (as defined below) filed by the Company and after such Registration Statement has been declared effective by the Securities and Exchange Commission (the "**Commission**"), although nothing in this Agreement shall be construed as requiring the Company to use the Registration Statement (as defined below) to issue the Common Stock.'

3. Agreement Heading. The reference to "\$100,000,000" in the heading of the Agreement shall be removed and replaced with "\$200,000,000".

4. Expenses. Clause (viii) of Section 7(g) of the Agreement is hereby amended and restated in its entirety to read as follows:

'(viii) the reasonable fees and disbursements of Cowen's counsel in an amount not to exceed \$75,000.'

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5. A new Section 20 as set forth below is hereby added to the Sales Agreement immediately following Section 19 thereof:

“20. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that Cowen is a Covered Entity and becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from Cowen of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that Cowen is a Covered Entity and Cowen or a BHC Act Affiliate of Cowen becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against Cowen are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

(c) For purposes of this Section 20; (a) “**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k), (b) “**Covered Entity**” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b), (c) “**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable, and (d) “**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.”

6. For the avoidance of doubt, any reference to “Prospectus” in the Agreement shall be deemed to include the February 2024 ATM Prospectus Supplement.

7. Governing Law. THIS AMENDMENT AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO ITS CHOICE OF LAW PROVISIONS.

8. Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same agreement. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docuSign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

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9. Agreement Remains in Effect. Except as provided herein, all provisions, terms and conditions of the Agreement shall remain in full force and effect. As amended hereby, the Agreement is ratified and confirmed in all respects.

Terms used herein but not otherwise defined are used herein as defined in the Agreement.

*(Signature page follows)*

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If the foregoing correctly sets forth the understanding between the Company and Cowen, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between the Company and Cowen.

Very truly yours,

**COWEN AND COMPANY, LLC**

By: /s/ Michael Murphy

Name: Michael Murphy

Title: Managing Director

**ACCEPTED as of the date  
first-above written:**

**RHYTHM PHARMACEUTICALS, INC.**

By: /s/ Hunter Smith

Name: Hunter Smith

Title: Chief Financial Officer

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 Boston, Massachusetts 02116  
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**LATHAM & WATKINS** LLP

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February 29, 2024

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

Re: Registration Statement on Form S-3 (Registration No. 333-270233); Shares of Common Stock, \$0.001 par value per share, having an aggregate offering price of up to \$200.0 million

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 sale through Cowen and Company, LLC, as sales agent (the “*Sales Agent*”), from time to time by the Company of shares of common stock, \$0.001 par value per share, having an aggregate offering price of up to \$200.0 million (the “*Shares*”) pursuant to (i) 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) (the “*Registration Statement*”), (ii) a base prospectus dated March 2, 2023 (the “*Base Prospectus*”), (iii) a related prospectus supplement filed with the Commission on the date hereof pursuant to Rule 424(b) under the Act (together with the Base Prospectus, the “*Prospectus*”), and (iv) that certain Sales Agreement, dated November 2, 2021, by and between the Company and the Sales Agent, as amended by Amendment No. 1 to the Sales Agreement, dated as of the date hereof (the “*Sales Agreement*”). 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 related 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.



**LATHAM & WATKINS** LLP

Subject to the foregoing and the other matters set forth herein, it is our opinion that, upon the completion of all Corporate Proceedings (as defined below) relating to the Shares, 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 purchasers, upon issuance, delivery and payment therefor in an amount not less than the par value thereof in accordance with the Corporate Proceedings and the terms of the Sales Agreement, the Shares to be issued and sold by the Company pursuant to the Sales Agreement will be duly authorized by all necessary corporate action of the Company and such Shares will be validly issued, fully paid and nonassessable. 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) upon the issuance of any of the Shares, the total number of shares of Common Stock issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under its certificate of incorporation, and (iii) certain terms of the Shares to be issued by the Company from time to time will be authorized and approved by the board of directors of the Company or one or more committees thereof established by the board of directors of the Company with the authority to issue and sell Shares pursuant to the Sales Agreement in accordance with the DGCL, the Company's certificate of incorporation, the by-laws of the Company and certain resolutions of the board of directors of the Company and one or more committees thereof (with such approvals referred to herein as the "*Corporate Proceedings*") prior to issuance thereof.

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 Form 8-K dated February 29, 2024 and to the reference to our firm contained in the Registration Statement and in the Prospectus 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

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