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

**FORM S-8
REGISTRATION STATEMENT**
*UNDER
THE SECURITIES ACT OF 1933*

Rhythm Pharmaceuticals, Inc.
(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
Incorporation or organization)

46-2159271
(I.R.S. Employer
Identification No.)

222 Berkeley Street
12th Floor
Boston, MA 02116
(857) 264-4280
(Address of principal executive offices) (Zip code)

Rhythm Pharmaceuticals, Inc. 2022 Employment Inducement Plan
(Full title of the plans)

David P. Meeker, M.D.
Chief Executive Officer, President and Chairman of the Board
Rhythm Pharmaceuticals, Inc.
222 Berkeley Street
12th Floor
Boston, MA 02116
(857) 264-4280
(Name and address of agent for service) (Telephone number, including area code, of agent for service)

With copies to:
Peter N. Handrinos, Esq.
Latham & Watkins LLP
John Hancock Tower
200 Clarendon Street
Boston, MA 02116
(617) 948-6060

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

Accelerated filer

Non-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 comply with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information called for in Part I of Form S-8 is not being filed with or included in this Registration Statement (by incorporation by reference or otherwise) in accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission").

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed with the Commission are hereby incorporated by reference in this Registration Statement:

(a) [The Registrant's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Commission on March 1, 2022 \(File No. 001-38223\); and](#)

(b) The Registrant's Registration Statement on [Form 8-A filed with the Commission on September 29, 2017](#) pursuant to Section 12(b) of the Securities Act, relating to the Registrant's Common Stock, as updated by "Description of the Registrant's Securities registered pursuant to Section 12 of the Securities Exchange Act of 1934." filed as [Exhibit 4.5 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2020](#), and any amendment or report filed for the purpose of updating such description.

All reports and other documents filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date hereof (except for any portions of the Registrant's Current Reports on Form 8-K furnished pursuant to Item 2.02 and/or Item 7.01 thereof and any corresponding exhibits thereto not filed with the Commission) 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 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 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 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 amended and 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 amended and 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
4.1	Amended and Restated Certificate of Incorporation of Rhythm Pharmaceuticals, Inc., dated October 10, 2017 (incorporated by reference to Exhibit 3.1 to Rhythm Pharmaceuticals, Inc.'s Quarterly Report on Form 10-Q (File No. 001-38223) filed on May 4, 2020)
4.2	Amended and Restated Bylaws of Rhythm Pharmaceuticals, Inc. (incorporated by reference to Exhibit 3.1 to Rhythm Pharmaceuticals, Inc.'s Current Report on Form 8-K (File No. 001-38223) filed on December 11, 2020)
5.1*	Opinion of Latham & Watkins LLP
23.1*	Consent of Ernst & Young LLP, 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)
99.1	Rhythm Pharmaceuticals, Inc. 2022 Employment Inducement Plan and Form of Option Agreement (incorporated by reference to Exhibit 10.5.1 to Rhythm Pharmaceuticals, Inc.'s Annual Report on Form 10-K (File No. 001-38223) filed on March 1, 2022)
99.2	2022 Employment Inducement Plan Form of Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.5.2 to Rhythm Pharmaceuticals, Inc.'s Annual Report on Form 10-K (File No. 001-38223) filed on March 1, 2022)
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 Boston, Commonwealth of Massachusetts, on March 1, 2022.

RHYTHM PHARMACEUTICALS, INC.

By: /s/ David P. Meeker, M.D,

David P. Meeker, M.D.

*Chief Executive Officer, President and
Chairman of the Board*

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints David P. Meeker, M.D. and Hunter C. Smith, or each of them singly, with full power to act without the other, such person's true and lawful attorneys-in-fact and agents, with full power of substitution and re-substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign this registration statement and any and all amendments, including post-effective amendments to this registration statement, and to file the same, with exhibits and schedules thereto, and other documents in connection therewith, with the Securities and Exchange 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 and necessary or desirable to be done in connection therewith as fully 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 or her 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 dates indicated.

Signature	Title	Date
<u>/s/ David P. Meeker, M.D.</u> David P. Meeker, M.D.	Chief Executive Officer, President and Director (Principal Executive Officer)	March 1, 2022
<u>/s/ Hunter C. Smith</u> Hunter C. Smith	Chief Financial Officer (Principal Financial Officer)	March 1, 2022
<u>/s/ William T. Roberts</u> William T. Roberts	Chief Accounting Officer (Principal Accounting Officer)	March 1, 2022
<u>/s/ Edward T. Mathers</u> Edward T. Mathers	Lead Director	March 1, 2022
<u>/s/ Stuart Arbuckle</u> Stuart Arbuckle	Director	March 1, 2022
<u>/s/ Camille L. Bedrosian, M.D.</u> Camille L. Bedrosian, M.D.	Director	March 1, 2022
<u>/s/ Jennifer L. Good</u> Jennifer L. Good	Director	March 1, 2022
<u>/s/ Christophe R. Jean</u> Christophe R. Jean	Director	March 1, 2022
<u>/s/ David W. J. McGirr</u> David W. J. McGirr	Director	March 1, 2022
<u>/s/ Lynn A. Tetrault, J.D.</u> Lynn A. Tetrault, J.D.	Director	March 1, 2022

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LATHAM & WATKINS LLP

FIRM / AFFILIATE OFFICES

Austin	Milan
Beijing	Moscow
Boston	Munich
Brussels	New York
Century City	Orange County
Chicago	Paris
Dubai	Riyadh
Düsseldorf	San Diego
Frankfurt	San Francisco
Hamburg	Seoul
Hong Kong	Shanghai
Houston	Silicon Valley
London	Singapore
Los Angeles	Tokyo
Madrid	Washington, D.C.

March 1, 2022

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

Re: Registration Statement on Form S-8; 1,000,000 shares of Common Stock, par value \$0.001 per share, of Rhythm Pharmaceuticals, Inc.

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 preparation and filing by the Company with the Securities and Exchange Commission of a registration statement on Form S-8 (the “Registration Statement”) under the Securities Act of 1933, as amended (the “Securities Act”), relating to the issuance of up to 1,000,000 shares of the Company’s common stock, par value \$0.001 per share (the “Shares”), which may be issued pursuant to the Rhythm Pharmaceuticals, Inc. 2022 Employment Inducement Plan (the “Plan”). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities 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, as amended (the “DCGL”), 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 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.

March 1, 2022

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LATHAM & WATKINS LLP

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 Securities 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 Securities Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Sincerely,

/s/ Latham & Watkins LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Rhythm Pharmaceuticals, Inc. 2022 Employment Inducement Plan of our reports dated March 1, 2022, with respect to the consolidated financial statements of Rhythm Pharmaceuticals, Inc. and the effectiveness of internal control over financial reporting of Rhythm Pharmaceuticals, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 1, 2022

CALCULATION OF FILING FEE TABLE

FORM S-8

(Form Type)

RHYTHM PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in its Charter)

Table I: 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 Plan	Equity	Common Stock, par value \$0.001 per share	Rule 457(c) and 457(h)	1,000,000 ⁽²⁾	\$ 6.92 ⁽³⁾	\$ 6,920,000.00	\$92.70 per million dollars	\$ 641.48
Total Offering Amounts						\$ 6,920,000.00		\$ 641.48
Total Fee Offsets								\$ —
Net Fee Due								\$ 641.48

(1) In accordance with Rule 416(a) under the Securities Act of 1933, as amended (the "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 Rhythm Pharmaceuticals, Inc. 2022 Employment Inducement Plan (the "Inducement 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.

(2) Consists of 1,000,000 shares of Common Stock that are issuable under the Inducement Plan pursuant to its terms.

(3) 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 February 24, 2022.