

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): January 4, 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.**

On January 4, 2024 (the “Effective Date”), Rhythm Pharmaceuticals, Inc., a Delaware corporation (the “Company,” “we” and “our”), entered into a License Agreement (the “License Agreement”) and Share Issuance Agreement (the “Share Issuance Agreement”) with LG Chem, Ltd., a corporation organized and existing under the laws of the Republic of Korea (“LGC”).

Under the terms of the License Agreement, the Company will obtain worldwide rights to exploit LGC’s proprietary compound LB54640 and will assume sponsorship of two ongoing LGC Phase 2 studies designed to evaluate safety, tolerability, pharmacokinetics and weight loss efficacy of LB54640. The SIGNAL trial is a randomized, placebo-controlled, double-blind study designed to enroll and evaluate approximately 28 patients with acquired hypothalamic obesity. Participants will receive one of three doses of LB54640 by oral administration once daily for up to 52 weeks, and the primary endpoint of the study is the change from baseline in body mass index after 14 weeks of treatment. The open-label, single-arm, 16-week ROUTE trial is designed to enroll five patients with POMC or LEPR deficiency obesity.

The Company has agreed to pay LGC a \$40 million in cash and issue shares of its common stock, par value of \$0.001, with an aggregate value of \$20 million (the “Shares”) within fifteen business days from the Effective Date. The Shares will be issued at a per share price equal to the ten-day volume weighted average closing price for the Company’s common stock, calculated as of the trading day immediately prior to January 4, 2024. The Company has also agreed to make a \$40 million payment in cash 18 months after the Effective Date.

In addition, under the terms of the License Agreement, the Company has agreed to pay LGC up to \$205 million in cash upon achieving various regulatory and sales milestones based on net sales of LB54640. In addition and subject to the completion of Phase 2 development of LB54640, the Company has agreed to pay LGC royalties of between low to mid single digit percent of net revenues from its MC4R portfolio, including LB54640, commencing in 2029 and dependent upon achievement of various regulatory and indication approvals, and subject to customary deductions and anti-stacking.

The Company and LGC have made customary representations and warranties in the License Agreement and have agreed to certain other customary covenants, including confidentiality, cooperation, and indemnity provisions.

The Share Issuance Agreement contains customary representations and warranties by the Company and LGC, and the issuance of the Shares is subject to certain customary closing conditions.

The foregoing descriptions of the License Agreement and Share Issuance Agreement are only a summary of their respective material terms and do not purport to be complete.

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**Item 3.02. Unregistered Sales of Equity Securities.**

The information included in Item 1.01 above regarding the Share Issuance Agreement is incorporated by reference under this Item 3.02. The Shares will be issued in reliance upon an exemption from the registration requirements of the Securities Act of 1933, as amended (the “Securities Act”), contained in Section 4(a)(2) of the Securities Act. LGC has represented that they are acquiring the securities for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof, and appropriate legends have been or will be affixed to the securities.

**Item 8.01. Other Events.**

In light of the License Agreement, the Company is providing the following update to its cash guidance. Based on its current operating plans, the Company expects that its existing cash, cash equivalents and short-term investments, taking into account a total of \$80 million in cash payments to LGC as fixed consideration pursuant to the License Agreement, as well as the incremental clinical development costs associated with the two Phase 2 studies that the Company will assume following the transfer of study sponsorship, will be sufficient to fund its operating expenses and capital expenditure requirements into the second half of 2025.

***Forward-Looking Statements***

This Current Report on Form 8-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this Current Report on Form 8-K that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements regarding the potential, safety, efficacy, and regulatory and clinical progress of setmelanotide and LB54640, the potential timing, payments due, and benefits of the global licensing agreement for LB54640 including with respect to the consummation of the transaction, expectations regarding the design, enrollment, or outcome of clinical trials of LB54640, the ability to reach any net sales or revenue milestones, obtaining regulatory approvals in connection with the global licensing agreement, the price per Share to be paid by the Company pursuant to the Share Issuance Agreement and the sufficiency of the Company’s existing cash, cash equivalents and short-term investments to fund its current or future operating plans. Statements using word such as “expect”, “anticipate”, “believe”, “may”, “will”, “aim” and similar terms are also forward-looking statements. Such statements are subject to numerous risks and uncertainties, including, but not limited to, risks relating to the Company’s liquidity and expenses, the Company’s ability to enroll patients in clinical trials, the design and outcome of clinical trials, the ability to achieve necessary regulatory approvals, risks associated with data analysis and reporting, failure to identify and develop additional product candidates, unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, risks associated with the laws and regulations governing our international operations and the costs of any related compliance programs, the impact of competition, risks relating to product liability lawsuits, inability to maintain collaborations, or the failure of these collaborations, the Company’s reliance on third parties, risks relating to intellectual property, the Company’s ability to hire and retain necessary personnel, the impact of the COVID-19 pandemic and general economic conditions on the Company’s business and operations, including its preclinical studies, clinical trials and commercialization prospects, failure to realize the anticipated benefits of the Company’s acquisition of Xinvento B.V. or significant integration difficulties related to the acquisition, and the other important factors discussed under the caption “Risk Factors” in the Company’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2023 and its other filings with the Securities and Exchange Commission. Except as required by law, the Company undertakes no obligations to make any revisions to the forward-looking statements contained in this release or to update them to reflect events or circumstances occurring after the date of this release, whether as a result of new information, future developments or otherwise.

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**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: January 4, 2024

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

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