

144: Filer Information

Filer CIK0001636385

Filer CCCXXXXXXXX

Is this a LIVE or TEST Filing?☒ LIVE ☐ TEST

Submission Contact Information

Name

Phone

E-Mail Address

144: Issuer Information

Name of IssuerRHYTHM PHARMACEUTICALS, INC.

SEC File Number001-38223

Address of Issuer222 Berkeley Street, 12th Floor
BOSTON
MASSACHUSETTS
02116

Phone8572644280

Name of Person for Whose Account the Securities are To Be SoldHUNTER SMITH

See the definition of "person" in paragraph (a) of Rule 144. Information is to be given not only as to the person for whose account the securities are to be sold but also as to all other persons included in that definition. In addition, information shall be given as to sales by all persons whose sales are required by paragraph (e) of Rule 144 to be aggregated with sales for the account of the person filing this notice.

Relationship to Issuer

Officer

144: Securities Information

Title of the Class of Securities To Be Sold	Name and Address of the Broker	Number of Shares or Other Units To Be Sold	Aggregate Market Value	Number of Shares or Other Units Outstanding	Approximate Date of Sale	Name the Securities Exchange
Common	Morgan Stanley Smith Barney LLC Executive Financial Services 1 New York Plaza 8th Floor New York NY 10004	62774	6727489.58	68852082	08/31/2026	NASDAQ

Furnish the following information with respect to the acquisition of the securities to be sold and with respect to the payment of all or any part of the purchase price or other consideration therefor:

144: Securities To Be Sold

Title of the	Date you	Nature of	Name of	Is	Date	Amount of	Date of	Nature of
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Class	Acquired	Acquisition Transaction	Person from Whom Acquired	this a Gift?	Donor Acquired	Securities Acquired	Payment	Payment *
Common	08/31/2026	Exercise of Stock Options	Issuer	☐		57187	08/31/2026	Cash
Common	02/01/2026	Restricted Stock Units	Issuer	☐		5587	02/01/2026	N/A

* If the securities were purchased and full payment therefor was not made in cash at the time of purchase, explain in the table or in a note thereto the nature of the consideration given. If the consideration consisted of any note or other obligation, or if payment was made in installments describe the arrangement and state when the note or other obligation was discharged in full or the last installment paid.

Furnish the following information as to all securities of the issuer sold during the past 3 months by the person for whose account the securities are to be sold.

144: Securities Sold During The Past 3 Months

Nothing to Report ☒

144: Remarks and Signature

Remarks

Date of Notice

08/31/2026

Date of Plan Adoption or Giving of Instruction, If Relying on Rule 10b5-1

05/13/2026

ATTENTION:

The person for whose account the securities to which this notice relates are to be sold hereby represents by signing this notice that he does not know any material adverse information in regard to the current and prospective operations of the Issuer of the securities to be sold which has not been publicly disclosed. If such person has adopted a written trading plan or given trading instructions to satisfy Rule 10b5-1 under the Exchange Act, by signing the form and indicating the date that the plan was adopted or the instruction given, that person makes such representation as of the plan adoption or instruction date.

Signature

/s/ Hunter Smith

ATTENTION: Intentional misstatements or omission of facts constitute Federal Criminal Violations (See 18 U.S.C. 1001)