

| OMB APPROVAL | |
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

| | | | | | | | | |
|--|--|--|---|--|--|---|--|--|
| 1. Name and Address of Reporting Person* <u>Cramer Pamela J.</u> (Last) (First) (Middle) 222 BERKELEY STREET 12TH FLOOR (Street) BOSTON MA 02116 (City) (State) (Zip) | | | 2. Issuer Name and Ticker or Trading Symbol <u>RHYTHM PHARMACEUTICALS, INC. [RYTM]</u> | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Chief Human Resources Officer</u> | | |
| | | | 3. Date of Earliest Transaction (Month/Day/Year) 08/09/2024 | | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person | | |
| | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | Rule 10b5-1(c) Transaction Indication <input checked="" type="checkbox"/> Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10. | | |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|--------------------------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 08/09/2024 | | M | | 30,771 | A | \$19.02 | 62,506 | D | |
| Common Stock | 08/09/2024 | | s ⁽¹⁾ | | 46,902 | D | \$45.1262 ⁽²⁾ | 15,604 | D | |
| Common Stock | 08/09/2024 | | s ⁽¹⁾ | | 2,104 | D | \$45.6221 ⁽³⁾ | 13,500 | D | |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
|--|--|--------------------------------------|--|--------------------------------|---|--|--------|--|-----------------|---|--|--|---|--|-------|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | | | | | | Title |
| Stock Options (Right to buy) | \$19.02 | 08/09/2024 | | M | | | 30,771 | (4) | 07/25/2031 | Common Stock | 30,771 | \$0 | 30,736 | D | |

Explanation of Responses:

- The sales reported in the Form 4 were effected pursuant to a Rule 10b5-1 instruction adopted on May 10, 2024.
- The price reported is a weighted average price. The securities were sold in multiple transactions at per share prices ranging from \$44.53 to \$45.51. The Reporting Person undertakes to provide upon request the SEC staff, the Issuer, or any shareholder of the Issuer, full information regarding the number of securities sold at each separate price within the range set forth in this footnote.
- The price reported is a weighted average price. The securities were sold in multiple transactions at per share prices ranging from \$45.53 to \$45.77. The Reporting Person undertakes to provide upon request the SEC staff, the Issuer, or any shareholder of the Issuer, full information regarding the number of securities sold at each separate price within the range set forth in this footnote.
- The stock options were granted on July 26, 2021. 25% of the shares subject to the option vested and became exercisable on July 26, 2022 and the remaining 75% of the shares subject to the option vest or have vested and become exercisable in 12 substantially equal installments upon the Reporting Person's completion of each three full months of successive service to the Issuer thereafter.

/s/ Hunter Smith, attorney-in-fact for Pamela J. Cramer 08/13/2024

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.