FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

## Washington, D.C. 20549

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

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL OMB Number: 3235-0287 Estimated average burden hours per response: 0.5

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

Name and Address of Reporting Person*     Shulman Joseph							2. Issuer Name and Ticker or Trading Symbol RHYTHM PHARMACEUTICALS, INC. [ RYTM ]								tor er (give title	10% C give title Other		vner		
(Last) (First) (Middle) 222 BERKELEY STREET, 12TH FLOOR					3. Date of Earliest Transaction (Month/Day/Year) 07/12/2024								Officer (give title below)  Chief Technical Officer							
(Street) BOSTON MA 02116				_	4. If Amendment, Date of Original Filed (Month/Day/Year)								Individual or Joint/Group Filing (Check Applicable le)  Form filed by One Reporting Person  Form filed by More than One Reporting  Person							
(City) (State) (Zip)					Rı	Rule 10b5-1(c) Transaction Indication														
						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/Ye						Execution Date,			3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 an				ies For cially (D) Following (I) (		n: Direct or Indirect nstr. 4)	7. Nature of Indirect Beneficial Ownership		
									Code	v	Amount	(A) or (D)	Price		ed action(s) 3 and 4)			Instr. 4)		
Common Stock 07/12/202					024	4			M		5,313	A	\$21.38	:	5,343		D			
Common Stock 07/12/202				024	24			<b>S</b> <sup>(1)</sup>		5,313	D	\$50.0141	(2)	30		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. Transa Code ( 8)				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)	ly	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)		
					Code	v	(A)	(D)	Date Exerci	isable	Expiration Date	Title	Amount or Number of Shares							
Stock Option (right to buy)	\$21.38	07/12/2024			M			5,313	(3	3)	07/26/2030	Common Stock	5,313	\$0	1,297		D			

## **Explanation of Responses:**

- 1. The sale reported in this Form 4 was effected pursuant to Rule 10b5-1 instruction adopted on May 5, 2023.
- 2. The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at per share prices ranging from \$50.00 to \$50.07. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set
- 3. The stock options were granted on July 27, 2020. 25% of the shares subject to the option vested and became exercisable on July 27, 2021 and the remaining 75% of the shares subject to the option shall vest 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/ Christopher Paul German as

07/16/2024 Attorney-in-Fact for Joseph

Shulman

\*\* 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.