

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* <b>Mathers Edward T</b> <hr/> (Last) (First) (Middle) <b>1954 GREENSPRING DRIVE</b> <b>SUITE 600</b> <hr/> (Street) <b>TIMONIUM MD 21093</b> <hr/> (City) (State) (Zip)			2. Issuer Name and Ticker or Trading Symbol <b>RHYTHM PHARMACEUTICALS, INC. [ RYTM ]</b>			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)		
			3. Date of Earliest Transaction (Month/Day/Year) <b>06/21/2023</b>			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person 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 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			

**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 Option (right to buy)	\$18.47	06/21/2023		A		14,000		(1)	06/20/2033	Common Stock	14,000	\$0.00	14,000	D	
Restricted Stock Units	(2)	06/21/2023		A		3,000		(3)	(3)	Common Stock	3,000	\$0.00	3,000	D	

**Explanation of Responses:**

- The options fully vest upon the earlier of (i) June 21, 2024 or (ii) the date of the Issuer's next annual meeting of the stockholders, subject to the Reporting Person's continued service on such vesting date.
- Each restricted stock unit represents a contingent right to receive one share of Issuer common stock.
- The restricted stock units fully vest upon the earlier of (i) June 21, 2024 or (ii) the date of the Issuer's next annual meeting of the stockholders, subject to the Reporting Person's continued service on such vesting date. The restricted stock units have no expiration date.

**Remarks:**

/s/ Louis Citron, attorney-in-fact 06/23/2023

\*\* 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.