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* Roberts William T.					2. Issuer Name and Ticker or Trading Symbol RHYTHM PHARMACEUTICALS, INC. [RYTM]										eck all applic Directo Officer	or r (give title		10% Owner Other (specify below)	
(Last) 222 BER	•	First) TREET, 12TH F	(Middle) LOOR			3. Date of Earliest Transaction (Month/Day/Year) 03/29/2022									below)	below) to Chief Accounting Of			
(Street) BOSTOI		State)	02116 (Zip)		-	4. If Amendment, Date of Original Filed (Month/Day/Year)							Line	Form filed by One Reporting Person Form filed by More than One Reporting Person					
		Tab	le I - No	n-Deri	vative	Sec	curiti	ies Ac	quired	, Dis	posed	of, or	Bene	eficiall	y Owned	t t			
1. Title of Security (Instr. 3)			2. Transaction Date (Month/Day/Year)		ar) E	2A. Deemed Execution Date, if any (Month/Day/Year)		, Transaction Code (Instr.		Dispose	4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 5)				es ally Following	Form (D) o	n: Direct r Indirect istr. 4)	7. Nature of Indirect Beneficial Ownership	
								Code	v	Amount	(A) or (D)		Price		orted isaction(s) tr. 3 and 4)			(Instr. 4)	
Common Stock				03/2	9/2022				М		2,500	0	Α	(1)	2,500			D	
Common Stock			03/2	9/2022				S ⁽²⁾		1,023	3	D	\$11.13	3 1,477			D		
		Т	able II -								osed of converti				Owned				
1. Title of Derivative Security (Instr. 3) 2. Conversion or Exercise Price of Derivative Security		3. Transaction Date (Month/Day/Year)	3A. Deem Executior if any (Month/Da	Date,	Code (Inst		on of E		Expiration	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Secu (Instr. 3 and 4)			8. Price of Derivative Security (Instr. 5)		Ow For Iy Dire or I (I) (10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
					Code	v	(A)	(D)	Date Exercisa		Expiration Date	Title	OI N Of	umber					
Restricted Stock	(1)	03/29/2022			М			2,500	(3)		(3)	Comm		2,500	\$0	7,500		D	

Explanation of Responses:

- 1. Each restricted stock unit represents a contingent right to receive one share of Issuer common stock.
- 2. The sale reported in the Form 4 was effected pursuant to a Rule 10b5-1 instruction solely with the intent to cover withholding taxes in connection with the vesting of certain previously reported Restricted
- 3. The restricted stock units vest or have vested as to 25% of the total shares on each of March 29, 2022, March 29, 2023, March 29, 2024 and March 29, 2025. The restricted stock units have no expiration date

/s/ Hunter Smith, attorney-infact for William T. Roberts

03/31/2022

** Signature of Reporting Person

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.