FORM 4

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

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL ОМ

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

			of Section So(ii) of the investment Company Act of 1940					
1. Name and Address of Reporting Person*    Viswanathan Ravi			2. Issuer Name <b>and</b> Ticker or Trading Symbol <u>RHYTHM PHARMACEUTICALS, INC.</u> [ <u>RYTM</u> ]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director X 10% Owner Officer (give title Other (specify below) below)				
1954 GREENSPRING DRIVE SUITE 600			3. Date of Earliest Transaction (Month/Day/Year) 10/10/2017					
(Street) TIMONIUM (City)	MD (State)	21093 (Zip)	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person				

### 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. Transa Code ( 8)					6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership	
			Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)		(Instr. 4)
Common Stock	10/10/2017		С		1,402,870	A	(1)	1,432,248	Ι	See Note 2 <sup>(2)</sup>
Common Stock	10/10/2017		С		2,927,708	A	(1)	4,359,956	I	See Note 2 <sup>(2)</sup>
Common Stock	10/10/2017		Р		550,000	A	\$17	4,909,956	Ι	See Note 2 <sup>(2)</sup>

# 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)		Derivative		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	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	Amount or Number of Shares		Transaction(s) (Instr. 4)		
Series A Preferred Stoc	(1)	10/10/2017		С			1,402,870 <sup>(3)</sup>	(1)	(1)	Common Stock	1,402,870 <sup>(3)</sup>	\$0.00	0	Ι	See Note 2 <sup>(2)</sup>
Series A-1 Junior Preferred Stock	(1)	10/10/2017		С			2,927,708 <sup>(3)</sup>	(1)	(1)	Common Stock	2,927,708 <sup>(3)</sup>	\$0.00	0	I	See Note 2 <sup>(2)</sup>

### **Explanation of Responses:**

1. In connection with the closing of the Issuer's initial public offering, each share of the Issuer's series A convertible preferred stock (the "Series A Preferred") and series A-1 junior preferred stock (the "Series A-1 Preferred") converted into the Issuer's common stock on a 9.17-for-one basis without payment or consideration. The Series A Preferred and the Series A-1 Preferred had no expiration date.

2. The Reporting Person is a director of NEA 13 GP, LTD, which is the sole general partner of NEA Partners 13, L.P. ("NEA Partners 13"). NEA Partners 13 is the sole general partner of New Enterprise Associates 13, L.P. ("NEA 13"), which is the direct beneficial owner of the securities. The Reporting Person disclaims beneficial ownership, within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, or otherwise of such portion of the NEA 13 shares in which the Reporting Person has no pecuniary interest.

3. Reflects the number of shares of Series A Preferred and Series A-1 Preferred, as applicable, held by the Reporting Person on an as-converted to common stock basis.

#### **Remarks:**

/s/ Sasha Keough, attorney-infact

10/10/2017

Date

\*\* 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.

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