FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

	OMB APPROVAL							
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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* PFIZER INC	2. Date of Event Requiring Stater (Month/Day/Yea 10/04/2017	ment	3. Issuer Name and Ticker or Trading Symbol RHYTHM PHARMACEUTICALS, INC. [RYTM]							
(Last) (First) (Middle) 235 EAST 42ND STREET			Relationship of Reporting Person(s) to Issuer (Check all applicable) Director X 10% Owner			5. If Amendment, Date of Original Filed (Month/Day/Year)				
			Officer (give title below)	Other (spec		6. Individual or Joint/Group Filing (Check Applicable Line)				
(Street)			belowy	belowy		K Form filed by	Form filed by One Reporting Person			
NEW YORK NY 10017						Form filed by Reporting P	y More than One erson			
(City) (State) (Zip)										
Table I - Non-Derivative Securities Beneficially Owned										
1. Title of Security (Instr. 4)			2. Amount of Securities Beneficially Owned (Instr. 4) 3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)		t (D) (Ins	4. Nature of Indirect Beneficial Ownership (Instr. 5)				
Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)										
1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of	Form:	6. Nature of Indirect Beneficial Ownership (Instr. 5)			
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	Derivative Security	Direct (D) or Indirect (I) (Instr. 5)				
Series A Convertible Preferred Stock	(1)	(1)	Common Stock	447,514	0	D				
Series A-1 Junior Preferred Stock	(1)	(1)	Common Stock	940,125	0	D				

Explanation of Responses:

1. At any time at the Reporting Person's election or upon the closing of the Issuer's initial public offering (the "IPO"), 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") is convertible into shares of 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 have no expiration date.

/s/ Susan Grant, Assistant

Secretary on behalf of Pfizer 10/04/2017

Inc.

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

- * If the form is filed by more than one reporting person, see Instruction 5 (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.

^{**} Signature of Reporting Person Date