

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

1. Name and Address of Reporting Person* <u>Fitzgerald Kevin Joseph</u> (Last) (First) (Middle) 675 WEST KENDALL STREET HENRI A. TERMEER SQUARE (Street) CAMBRIDGE MA 02142 (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 03/20/2024	3. Issuer Name and Ticker or Trading Symbol <u>ALNYLAM PHARMACEUTICALS, INC. [ALNY]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) CSO & EVP, Head of Research	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person

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)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	12,881	D	
Common Stock	537	I	by Managed Account ⁽¹⁾

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 Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date				
Performance Stock Option 2017 (right to buy)	02/11/2021	03/01/2028	Common Stock 9,000	119.13	D	
Stock Option (right to buy)	(2)	02/28/2029	Common Stock 16,250	85	D	
Stock Option (right to buy)	(2)	12/07/2025	Common Stock 6,667	97.72	D	
Stock Option (right to buy)	(2)	02/26/2030	Common Stock 14,580	118.05	D	
Stock Option (right to buy)	(3)	03/01/2028	Common Stock 9,000	119.13	D	
Stock Option (right to buy)	(2)	02/23/2032	Common Stock 20,382	147.47	D	
Stock Option (right to buy)	(2)	02/24/2031	Common Stock 15,692	151.59	D	
Stock Option (right to buy)	(2)	03/01/2034	Common Stock 9,279	152.61	D	
Stock Option (right to buy)	(2)	02/27/2033	Common Stock 10,352	190.01	D	

Explanation of Responses:

- Reflects shares of ALNY common stock acquired by the Reporting Person under the issuer 401(k) plan as a result of the issuer 401(k) matching contribution program.
- The stock option vests as to 25% of the shares on the first anniversary of the grant date and the remaining shares vest in equal installments at the end of each successive three-month period thereafter until the fourth anniversary of the grant date, subject to the Reporting Persons continuous service with the Issuer as of each such vesting date.
- The stock option vests as to 25% of the shares on the first anniversary of the grant date and the remaining shares vest in equal installments at the end of each successive three-month period thereafter over the following thirty-three (33) months of the grant date, subject to the Reporting Persons continuous service with the Issuer as of each such vesting date.

Remarks:

Exhibit List: Exhibit 24 - Power of Attorney

By: Brett Budzinski,
Attorney-in-Fact For:
Kevin Fitzgerald

03/28/2024

** 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 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.