PAUL STEVEN M Form 3

September 24, 2010

## FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

OMB APPROVAL

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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF

**SECURITIES** 

30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting 2. Date of Event Requiring 3. Issuer Name and Ticker or Trading Symbol Person \* Statement ALNYLAM PHARMACEUTICALS, INC. [ALNY] PAUL STEVEN M (Month/Day/Year) 09/22/2010 (Last) (First) (Middle) 4. Relationship of Reporting 5. If Amendment, Date Original Person(s) to Issuer Filed(Month/Day/Year) 300 THIRD ST (Check all applicable) (Street) 6. Individual or Joint/Group Filing(Check Applicable Line) \_X\_ Director 10% Owner \_X\_ Form filed by One Reporting Officer \_ Other Person CAMBRIDGE. MAÂ 02142 (give title below) (specify below) Form filed by More than One Reporting Person (City) (State) (Zip) Table I - Non-Derivative Securities Beneficially Owned 2. Amount of Securities 4. Nature of Indirect Beneficial 1. Title of Security Beneficially Owned Ownership (Instr. 4) Ownership (Instr. 4) Form: (Instr. 5) Direct (D)

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

SEC 1473 (7-02)

or Indirect (I) (Instr. 5)

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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		4. Conversion or Exercise		6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	(Instr. 4) Title	Amount or Number of Shares	Price of Derivative Security	Derivative Security: Direct (D) or Indirect (I) (Instr. 5)	

## **Reporting Owners**

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

PAUL STEVEN M 300 THIRD ST

X Â Â Â

CAMBRIDGE, MAÂ 02142

## **Signatures**

/s/ Patricia L. Allen, Attorney-in-Fact for Steven M. Paul

09/24/2010

\*\*Signature of Reporting Person

Date

## **Explanation of Responses:**

No securities are beneficially owned

- \* 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. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

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