

MARAGANORE JOHN  
Form 4  
August 18, 2010

**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 OF  
SECURITIES**

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  
30(h) of the Investment Company Act of 1940

## OMB APPROVAL

OMB  
Number: 3235-0287  
Expires: January 31,  
2005  
Estimated average  
burden hours per  
response... 0.5

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
MARAGANORE JOHN

(Last) (First) (Middle)

300 3RD STREET

(Street)

CAMBRIDGE, MA 02142

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading  
Symbol  
ALNYLAM  
PHARMACEUTICALS, INC.  
[ALNY]

3. Date of Earliest Transaction  
(Month/Day/Year)  
08/17/2010

4. If Amendment, Date Original  
Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to  
Issuer

(Check all applicable)

☐ Director ☐ 10% Owner  
☒ Officer (give title below) ☐ Other (specify  
below) CEO

6. Individual or Joint/Group Filing(Check  
Applicable Line)  
☒ 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. Transaction Code (Instr. 8)	4. Securities Acquired or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
Common Stock	08/17/2010		M	50,000	A	\$ 0.475	50,000 D
Common Stock						1,430	I
							by Managed Account (1)

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

**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 control**

SEC 1474  
(9-02)

number.

**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. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Amount or Number of Shares
Stock Option (Right to buy)	\$ 0.475	08/17/2010		M	50,000	<u>(2)</u> 02/26/2013	Common Stock	50,000

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
MARAGANORE JOHN 300 3RD STREET CAMBRIDGE, MA 02142	X		CEO	

## Signatures

/s/ Patricia L. Allen, Attorney-in-Fact for John M.  
Maraganore

08/18/2010

\_\_Signature of Reporting Person

Date

## Explanation of Responses:

\* 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).

(1) The reporting person owns 1,430 shares of ALNY common stock under the ALNY 401(k) plan as a result of the ALNY 401(k) matching contribution program.

(2) The stock option vests as to 25% of the shares on the 1st anniversary of the grant and as to an additional 6.25% of the shares on the last day of each calendar quarter thereafter.

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.