

ALNYLAM PHARMACEUTICALS, INC.

Form 4

May 14, 2008

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

OMB APPROVAL

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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

(Print or Type Responses)

1. Name and Address of Reporting Person *
NOVARTIS AG

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

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

___ Director ___X___ 10% Owner
___ Officer (give title below) ___ Other (specify below)

(Last) (First) (Middle)

3. Date of Earliest Transaction
(Month/Day/Year)
05/08/2008

LICHSTRASSE 35

(Street)

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

6. Individual or Joint/Group Filing(Check Applicable Line)
___ Form filed by One Reporting Person
X Form filed by More than One Reporting Person

BASEL, V8 V8 CH 4002

(City) (State) (Zip)

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 (A) 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 | 05/08/2008 | | P | V A | Amount \$ 213,888 Price 25.29 | 5,481,753 | I ⁽¹⁾ See Note |

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

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SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

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| 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. Price of Derivative Security (Instr. 5) | 9. Number of Derivative Securities Owned Following Transaction (Instr. 5) |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|--|---|
|--|--|--------------------------------------|--|--------------------------------|---|--|---|--|---|

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| NOVARTIS AG LICHSTRASSE 35 BASEL, V8 V8 CH 4002 | | X | | |
| NOVARTIS PHARMA AG LICHSTRASSE 35 BASEL, V8 V8 CH 4002 | | X | | |

Signatures

/s/ P. Kornicker 05/14/2008
 **Signature of Date
 Reporting Person

/s/ Robert E. Pelzer 05/14/2008
 **Signature of Date
 Reporting Person

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) These securities are owned directly by Novartis Pharma AG, a direct, wholly-owned subsidiary of Novartis AG. Novartis AG is an indirect beneficial owner of these securities.

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.