

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

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* POLARIS VENTURE MANAGEMENT CO III LLC (Last) (First) (Middle) 1000 WINTER STREET SUITE 3350 (Street) WALTHAM MA 02451-1215 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol ALNYLAM PHARMACEUTICALS, INC. [ALNY]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 12/28/2004	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

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)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	12/28/2004		S		159	D	\$7.56	60,442	I	See footnotes ⁽¹⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾
Common Stock	12/28/2004		S		6,244	D	\$7.56	2,326,399	I	See footnotes ⁽²⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾
Common Stock	12/28/2004		S		97	D	\$7.56	36,686	I	See footnotes ⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾
Common Stock	12/29/2004		S		147	D	\$7.56	60,295	I	See footnotes ⁽¹⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾
Common Stock	12/29/2004		S		5,764	D	\$7.56	2,320,635	I	See footnotes ⁽²⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾
Common Stock	12/29/2004		S		90	D	\$7.56	36,596	I	See footnotes ⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾

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 Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date					

1. Name and Address of Reporting Person*

POLARIS VENTURE MANAGEMENT CO III
LLC

(Last) (First) (Middle)

1000 WINTER STREET
SUITE 3350

(Street)

WALTHAM MA 02451-1215

(City) (State) (Zip)

1. Name and Address of Reporting Person*

POLARIS VENTURE PARTNERS III LP

(Last) (First) (Middle)

1000 WINTER STREET
SUITE 3350

(Street)

WALTHAM MA 02451-1215

(City) (State) (Zip)

1. Name and Address of Reporting Person*

POLARIS VENTURE PARTNERS
FOUNDERS FUND III LP

(Last) (First) (Middle)

1000 WINTER STREET
SUITE 3350

(Street)

WALTHAM MA 02451-1215

(City) (State) (Zip)

1. Name and Address of Reporting Person*

POLARIS VENTURE PARTNERS
ENTREPRENEURS FUND III LP

(Last) (First) (Middle)

1000 WINTER STREET
SUITE 3350

(Street)

WALTHAM MA 02451-1215

(City) (State) (Zip)

1. Name and Address of Reporting Person*		
<u>Arnold Stephen D</u>		
(Last)	(First)	(Middle)
1000 WINTER STREET SUITE 3350		
(Street)		
WALTHAM	MA	02451-1215
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
<u>Flint Jonathan A</u>		
(Last)	(First)	(Middle)
1000 WINTER STREET SUITE 3350		
(Street)		
WALTHAM	MA	02451-1215
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
<u>MCGUIRE TERRANCE</u>		
(Last)	(First)	(Middle)
1000 WINTER STREET SUITE 3350		
(Street)		
WALTHAM	MA	02451-1215
(City) (State) (Zip)		
1. Name and Address of Reporting Person*		
<u>SPOON ALAN G</u>		
(Last)	(First)	(Middle)
1000 WINTER STREET SUITE 3350		
(Street)		
WALTHAM	MA	02451-1215
(City) (State) (Zip)		

Explanation of Responses:

1. These shares are owned directly by Polaris Venture Partners Entrepreneurs' Fund III, L.P. ("PVPEF III"), of which Polaris Venture Management Co. III, LLC ("PVM III") is the General Partner. As such, PVM III may be deemed to share voting and investment powers with respect to the shares owned by PVPEF III.
2. These shares are owned directly by Polaris Venture Partners III, L.P. ("PVP III") of which PVM III is the General Partner. As such, PVM III may be deemed to share voting and investment powers with respect to the shares owned by PVP III.
3. These shares are owned directly by Polaris Venture Partners Founders' Fund III, L.P. ("PVPFF III"), of which PVM III is the General Partner. As such, PVM III may be deemed to share voting and investment powers with respect to the shares owned by PVPFF III.
4. PVM III is the General Partner of PVP III, PVPEF III and PVPFF III, and Stephen D. Arnold, Jonathan A. Flint, Terrance G. McGuire and Alan G. Spoon, the managing members of PVM III, may be deemed to share voting and dispositive power over the shares held by PVP III, PVPEF III and PVPFF III. Such persons disclaim beneficial ownership of shares held by PVP III, PVPEF III and PVPFF III except to the extent of any pecuniary interest therein.
5. North Star Ventures directly or indirectly provides investment advisory services to various venture capital funds, including PVM III, the General Partner of PVPEF III, PVPFF III and PVP III. The respective General Partners of these funds exercise sole voting and investment power with respect to the shares held by such funds.
6. Continued from footnote 5. The members of North Star Ventures are members of PVM III, the General Partner of PVPEF III, PVPFF III and PVP III. As members of PVM III, they may be deemed to share voting and investment powers with respect to the shares held by such funds. These principals disclaim beneficial ownership of all such shares except to the extent of their proportionate pecuniary interest therein.

Authorized Signatory: /s/ Kevin Littlejohn 12/30/2004

** 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 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).

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.

STATEMENT APPOINTING DESIGNATED FILER AND AUTHORIZED SIGNATURES

Kevin Littlejohn has signed certain of these documents as Authorized Signatory. Note that copies of the applicable Statement Appointing Designated Filer and Authorized Signatories are already on file with the appropriate agencies.

JOINT FILER INFORMATION

Joint Filer Name: Polaris Venture Partners III, L.P.
 Relationship to Issuer: 10% Owner
 Address: 1000 Winter Street, Suite 3350
 Waltham, MA 02451
 Designater Filer: Polaris Venture Management Co. III, L.L.C.
 Date of Event Requiring
 Statement: 12/30/04
 Issuer Name and Ticker or
 Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)
 Signature: Polaris Venture Partners III, L.P.
 By: Polaris Venture Management Co. III L.L.C.
 Its General Partner

By: /s/ Kevin Littlejohn

 Kevin Littlejohn, Authorized Signatory

Joint Filer Name: Polaris Venture Partners Entrepreneurs'
 Fund III, L.P.
 Relationship to Issuer: 10% Owner
 Address: 1000 Winter Street, Suite 3350
 Waltham, MA 02451
 Designater Filer: Polaris Venture Management Co. III, L.L.C.
 Date of Event Requiring
 Statement: 12/30/04
 Issuer Name and Ticker or
 Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)
 Signature: Polaris Venture Partners Entrepreneurs'
 Fund III, L.P.
 By: Polaris Venture Management Co. III L.L.C.
 Its General Partner

By: /s/ Kevin Littlejohn

 Kevin Littlejohn, Authorized Signatory

Joint Filer Name: Polaris Venture Partners Founders' Fund III, L.P.
 Relationship to Issuer: 10% Owner
 Address: 1000 Winter Street, Suite 3350
 Waltham, MA 02451
 Designater Filer: Polaris Venture Management Co. III, L.L.C.
 Date of Event Requiring
 Statement: 12/30/04
 Issuer Name and Ticker or
 Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)
 Signature: Polaris Venture Partners Founders' Fund III, L.P.
 By: Polaris Venture Management Co. III L.L.C.
 Its General Partner

By: /s/ Kevin Littlejohn

 Kevin Littlejohn, Authorized Signatory

Joint Filer Name: North Star Venture Management 2000, L.L.C.
Relationship to Issuer: 10% Owner, as provider of investment advisory services to PVM III, the general partner of PVP III, PVPEF III and PVPFF III (the reporting person disclaims beneficial ownership of the reported securities except to the extent of its pecuniary interest therein)

Address: 1000 Winter Street, Suite 3350
Waltham, MA 02451

Designater Filer: Polaris Venture Management Co. III, L.L.C.

Date of Event Requiring Statement: 12/30/04

Issuer Name and Ticker or Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)

Signature: North Star Venture Management 2000, L.L.C.

By: /s/ Kevin Littlejohn

Kevin Littlejohn, Authorized Signatory

Joint Filer Name: Stephen D. Arnold
Relationship to Issuer: 10% Owner, as managing member of PVM III, the general partner of PVP III, PVPEF III and PVPFF III (the reporting person disclaims beneficial ownership of the reported securities except to the extent of his pecuniary interest therein)

Address: 1000 Winter Street, Suite 3350
Waltham, MA 02451

Designater Filer: Polaris Venture Management Co. III, L.L.C.

Date of Event Requiring Statement: 12/30/04

Issuer Name and Ticker or Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)

Signature: Stephen D. Arnold

By: /s/ Kevin Littlejohn

Kevin Littlejohn, Authorized Signatory

Joint Filer Name: Jonathan A. Flint
Relationship to Issuer: 10% Owner, as managing member of PVM III, the general partner of PVP III, PVPEF III and PVPFF III (the reporting person disclaims beneficial ownership of the reported securities except to the extent of his pecuniary interest therein)

Address: 1000 Winter Street, Suite 3350
Waltham, MA 02451

Designater Filer: Polaris Venture Management Co. III, L.L.C.

Date of Event Requiring Statement: 12/30/04

Issuer Name and Ticker or Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)

Signature: Jonathan A. Flint

By: /s/ Kevin Littlejohn

Kevin Littlejohn, Authorized Signatory

Joint Filer Name: Terrance G. McGuire
Relationship to Issuer: 10% Owner, as managing member of
PVM III, the general partner of
PVP III, PVPEF III and PVPPF III (the reporting
person disclaims beneficial ownership of the
reported securities except to the extent of his
pecuniary interest therein)

Address: 1000 Winter Street, Suite 3350
Waltham, MA 02451

Designater Filer: Polaris Venture Management Co. III, L.L.C.

Date of Event Requiring
Statement: 12/30/04

Issuer Name and Ticker or
Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)

Signature: Terrance G. McGuire

By: /s/ Kevin Littlejohn

Kevin Littlejohn, Authorized Signatory

Joint Filer Name: Alan G. Spoon
Relationship to Issuer: 10% Owner, as managing member of
PVM III, the general partner of
PVP III, PVPEF III and PVPPF III (the reporting
person disclaims beneficial ownership of the
reported securities except to the extent of his
pecuniary interest therein)

Address: 1000 Winter Street, Suite 3350
Waltham, MA 02451

Designater Filer: Polaris Venture Management Co. III, L.L.C.

Date of Event Requiring
Statement: 12/30/04

Issuer Name and Ticker or
Trading Symbol: Alnylam Pharmaceuticals Inc. (ALNY)

Signature: Alan G. Spoon

By: /s/ Kevin Littlejohn

Kevin Littlejohn, Authorized Signatory