#### ALNYLAM PHARMACEUTICALS, INC.

Form SC 13G/A February 14, 2006

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Schedule 13G (Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1 (b), (c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO 13d-2 (b)

(Amendment No. 2)\*

Alnylam Pharmaceuticals, Inc. (Name of Issuer)

Common Stock (Title of Class of Securities)

02043Q107 (CUSIP Number)

December 30, 2005 (Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- [ ] Rule 13d-1(b)
- [ ] Rule 13d-1(c)
- [X] Rule 13d-1(d)
- \* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

(Continued on following pages)

Page 1 of 16 Exhibit Index on Page 13

CUSIP NO. 02043Q107

13 G

Page 2 of 16

\_\_\_\_\_

SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Polaris Venture Partners III, L.P. ("PVP III")

<sup>1</sup> NAME OF REPORTING

2 (	CHECK THE	APPRO	PRIATE BOX IF A MEMBER OF A GROUP*	 (a)	[	]	(b)	 [X]
3 5	SEC USE ON	ILY						
	CITIZENSHI Delaware	P OR	PLACE OF ORGANIZATION					
		5	SOLE VOTING POWER  1,938,532 shares, except that Polaris Vene Co. III, L.L.C. ("Polaris III"), the gene III, may be deemed to have sole power to and Jonathan A. Flint ("Flint"), Terrance ("McGuire") and Alan G. Spoon ("Spoon"), members of Polaris III, may be deemed to be to vote these shares.	ral p vote G. P the r	par th McG man	tne: ese Guire Gagir	r of sha: e ng	PVP res,
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		6	SHARED VOTING POWER See response to row 5.					
		7	SOLE DISPOSITIVE POWER  1,938,532 shares, except that Polaris III partner of PVP III, may be deemed to have dispose of these shares, and Flint, McGuimanaging members of Polaris III, may be deshared power to dispose of these shares.	sole re a	e p nd	owe Spod	n to	the
		8	SHARED DISPOSITIVE POWER See response to row 7.					
9 <i>I</i>	AGGREGATE	AMOUN	T BENEFICIALLY OWNED BY EACH REPORTING PER:	SON		1,	, 938	, 532
10 (	CHECK BOX	IF TH	E AGGREGATE AMOUNT IN ROW (9) EXCLUDES CER	 FAIN	SH	IARES	 S	
11 E	PERCENT OF	'CLAS	S REPRESENTED BY AMOUNT IN ROW 9				7	.27%
12 7	TYPE OF REPORTING PERSON  F							
CUSIP	NO. 0203Q	107	13 G		Р	age	3 0:	f 16
		S. ID	NG ENTIFICATION NO. OF ABOVE PERSON ure Partners Entrepreneurs' Fund III, L.P.	 ("E	 ntr	epre	eneu:	 rs'

2 CHECK TH	E APPROPRIATE BOX IF A MEMBER OF A GROUP*  (a) [ ] (b) [:						
3 SEC USE	ONLY						
4 CITIZENS Delaware	HIP OR PLACE OF ORGANIZATION						
	5 SOLE VOTING POWER 50,076 shares, except that Polaris III, the general partner of Entrepreneurs' III, may be deemed to have sole power to vote these shares, and Flint, McGuire and Spoon, the managing members of Polaris III, may be deemed to have shared power to vote these shares.						
NUMBER OF SHARES BENEFICIALLY	6 SHARED VOTING POWER See response to row 5.						
OWNED BY EACH REPORTING PERSON WITH	7 SOLE DISPOSITIVE POWER 50,076 shares, except that Polaris III, the general partne of Entrepreneurs' III, may be deemed to have sole power to dispose of these shares, and Flint, McGuire and Spoon, the managing members of Polaris III, may be deemed to have Shared power to dispose of these shares.						
	8 SHARED DISPOSITIVE POWER See response to row 7.						
9 AGGREGAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 50,0						
	X IF THE AGGREGATE AMOUNT IN ROW (9) CERTAIN SHARES						
	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.18%						
12 TYPE OF	REPORTING PERSON						
CUSIP NO. 020	43Q107 13 G Page 4 of 3						
SS OR I.	REPORTING R.S. IDENTIFICATION NO. OF ABOVE PERSON is Venture Partners Founders' Fund III, L.P. ("Founders' III")						

NUMBE SHA BENEFI OWNED B REPOR PER	R OF RES CIALLY Y EACH TING SON	OR PLACE OF ORGANIZATIO  SOLE VOTING POWER 30,384 shares, exce of Founders' III, m these shares, and F	ept that Polaris III, the general partne may be deemed to have sole power to vote Plint, McGuire and Spoon, the managing III, may be deemed to have shared power			
NUMBE SHA BENEFI OWNED B REPOR PER	R OF RES CIALLY Y EACH TING SON	5 SOLE VOTING POWER 30,384 shares, exce of Founders' III, m these shares, and F members of Polaris vote these shares.  6 SHARED VOTING POWER	ept that Polaris III, the general partne may be deemed to have sole power to vote Plint, McGuire and Spoon, the managing III, may be deemed to have shared power			
SHA BENEFI OWNED B REPOR PER	RES CIALLY Y EACH TING .SON	30,384 shares, exce of Founders' III, m these shares, and F members of Polaris vote these shares.	may be deemed to have sole power to vote Flint, McGuire and Spoon, the managing III, may be deemed to have shared power			
SHA BENEFI OWNED B REPOR PER	RES CIALLY Y EACH TING .SON					
REPOR PER	TING SON					
OWNED BY EACH REPORTING PERSON WITH		of Founders' III, m dispose of these sh managing members of	OWER ept that Polaris III, the general partne may be deemed to have sole power to mares, and Flint, McGuire and Spoon, the Polaris III, may be deemed to have spose of these shares.			
		8 SHARED DISPOSITIVE See response to row				
9 AG	GREGATE	MOUNT BENEFICIALLY OWNED	D BY EACH REPORTING PERSON 30,38			
		F THE AGGREGATE AMOUNT I				
 11 PE	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.11%					
 12 TY	PE OF RE	ORTING PERSON	P:			
CUSIP N	0. 02043	107 1	13 G Page 5 of 1			
		. IDENTIFICATION NO. OF	ABOVE PERSON			

2 CHECK THE	APPRO	OPRIATE BOX IF A MEMBER OF A GROUP*  (a.	[]	(b)	[X]
3 SEC USE O	NLY				
4 CITIZENSH Delaware	IP OR	PLACE OF ORGANIZATION			
	5	SOLE VOTING POWER  2,018,992 shares, of which 1,938,532 are directly owned by Entreps and 30,384 are directly owned by Founders' III, the general partner of PVP III, Entrepresented Founders' III, may be deemed to have sole post these shares, and Flint, McGuire and Spoon, members of Polaris III, may be deemed to have to vote these shares.	reneurs II. Pola eneurs' wer to	' III aris III vote aging	and
NUMBER OF SHARES BENEFICIALLY	6	SHARED VOTING POWER See response to row 5.			
OWNED BY EACH REPORTING PERSON WITH	7	SOLE DISPOSITIVE POWER  2,018,992 shares, of which 1,938,532 are directly owned by Entreps and 30,384 are directly owned by Founders' III, the general partner of PVP III, Entrepresentation of PVP III, Entrepresentation of PVP III, and the sole power of these shares, and Flint, McGuire and Spoon, members of Polaris III, may be deemed to have to dispose of these shares.	reneurs II. Pola eneurs' wer to	' III aris III vote aging	and
	8	SHARED DISPOSITIVE POWER See response to row 7.			
9 AGGREGATE	AMOUI	NT BENEFICIALLY OWNED BY EACH REPORTING PERSON	2	,018,	992
10 CHECK BOX EXCLUDES		HE AGGREGATE AMOUNT IN ROW (9) IN SHARES			
11 PERCENT O	F CLA	SS REPRESENTED BY AMOUNT IN ROW 9		7.	58%
12 TYPE OF R	EPORT	ING PERSON			00
CUSIP NO. 0204	30107	13 G	Page	6 of	: 16

SS OF		S. II	ING DENTIFICATION NO. OF ABOVE PERSON Flint ("Flint")				
2 CHECK	(a)	[ ]	(b)	[X]			
3 SEC U	USE ON	ILY					
	ZENSHI Citiz		PLACE OF ORGANIZATION				
		5	SOLE VOTING POWER  0 shares.				
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON		6	SHARED VOTING POWER  2,018,992 shares, of which 1,938,532 are PVP III, 50,076 are directly owned by En and 30,384 are directly owned by Founder Polaris III is the general partner of PVE Entrepreneurs' III and Founders' III. Fl member of Polaris III, and may be deemed power to vote these shares.	trepres' III P III int is	eneurs I. , s a ma	s' II: anagi:	I ng
		7	SOLE DISPOSITIVE POWER  0 shares.				
WITH		8	SHARED DISPOSITIVE POWER 2,018,992 shares, of which 1,938,532 are PVP III, 50,076 are directly owned by Enand 30,384 are directly owned by Founder is the general partner of PVP III, Entrepounders' III. Flint is a managing member and may be deemed to have shared power to shares.	trepres' III prene r of l	eneurs I. Pol urs' l Polari	s' II: laris III a: is II:	I III nd I,
9 AGGRE	EGATE	AMOUN	IT BENEFICIALLY OWNED BY EACH REPORTING PE	RSON		2,018	, 992
			ME AGGREGATE AMOUNT IN ROW (9)				
11 PERCE	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9						
12 TYPE	TYPE OF REPORTING PERSON  IN						

CUSIP NO. 020430107 13 G Page 7 of 16 \_\_\_\_\_ 1. NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Terrance G. McGuire ("McGuire") 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a) [ ] (b) [X] \_\_\_\_\_\_ 3. SEC USE ONLY 4. CITIZENSHIP OR PLACE OF ORGANIZATION U.S.Citizen 5 SOLE VOTING POWER O shares. \_\_\_\_\_\_ SHARED VOTING POWER 2,018,992 shares, of which 1,938,532 are directly owned by PVP III, 50,076 are directly owned by Entrepreneurs' III and 30,384 are directly owned by Founders' III. Polaris III is the general partner of PVP III, Entrepreneurs' III and Founders' III. McGuire is a managing member of Polaris III, NUMBER OF and may be deemed to have shared power to vote these SHARES shares. BENEFICIALLY OWNED BY EACH REPORTING 7 SOLE DISPOSITIVE POWER 0 shares. PERSON WITH \_\_\_\_\_\_ SHARED DISPOSITIVE POWER 2,018,992 shares, of which 1,938,532 are directly owned by PVP III, 50,076 are directly owned by Entrepreneurs' III and 30,384 are directly owned by Founders' III. Polaris III is the general partner of PVP III, Entrepreneurs' III and Founders' III. McGuire is a managing member of Polaris III, and may be deemed to have shared power to dispose of these shares. 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,018,992 \_\_\_\_\_\_ 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 \_\_\_\_\_\_ TYPE OF REPORTING PERSON

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CUSI	P NO. 02043	3Q107	13 G P	age 8 of 16
1.		.S. ID	NG ENTIFICATION NO. OF ABOVE PERSON n ("Spoon")	
2.	CHECK THE	APPRO	PRIATE BOX IF A MEMBER OF A GROUP*  (a) [	] (b) [X]
3.	SEC USE ON	NLY		
4.	CITIZENSHI U.S.Citize		PLACE OF ORGANIZATION	
		5	SOLE VOTING POWER 0 shares.	
NUMBER OF SHARES BENEFICIALLY		6	SHARED VOTING POWER  2,018,992 shares, of which 1,938,532 are directl PVP III, 50,076 are directly owned by Entreprene and 30,384 are directly owned by Founders' III. is the general partner of PVP III, Entrepreneurs Founders' III. Spoon is a managing member of Pol and may be deemed to have shared power to vote t shares.	urs' III Polaris III ' III and aris III,
RE	D BY EACH PORTING PERSON WITH	7	SOLE DISPOSITIVE POWER  0 shares.	
		8	SHARED DISPOSITIVE POWER 2,018,992 shares, of which 1,938,532 are directl PVP III, 50,076 are directly owned by Entreprene and 30,384 are directly owned by Founders' III. is the general partner of PVP III, Entrepreneurs Founders' III. Spoon is a managing member of Pol and may be deemed to have shared power to dispos shares.	urs' III Polaris III ' III and aris III,
9	AGGREGATE	AMOUN	T BENEFICIALLY OWNED BY EACH REPORTING PERSON	2,018,992
10	CHECK BOX		E AGGREGATE AMOUNT IN ROW (9) N SHARES	
11	PERCENT OF	 F CLAS	S REPRESENTED BY AMOUNT IN ROW 9	7.58%

12 TYPE OF REPORTING PERSON

\_\_\_\_\_\_

CUSIP NO. 02043Q107 13 G Page 9 of 16

ITEM 1(A). NAME OF ISSUER

Alnylam Pharmaceuticals, Inc.

ITEM 1(B). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES

300 Third Street

Cambridge, Massachusetts 02142

ITEM 2(A). NAME OF PERSONS FILING

This Statement is filed by Polaris Venture Partners III, L.P., a Delaware limited partnership ("PVP III"), Polaris Venture Partners Entrepreneurs' Fund III, L.P., a Delaware limited partnership ("Entrepreneurs' III"), Polaris Venture Partners Founders' Fund III, L.P., a Delaware limited partnership ("Founders' III"), Polaris Venture Management Co. III, L.L.C., a Delaware limited liability company ("Polaris III"), Jonathan A. Flint ("Flint"), Terrance G. McGuire ("McGuire") and Alan G. Spoon ("Spoon"). Flint, McGuire and Spoon are the managing members of Polaris III. The foregoing entities and individuals are collectively referred to as the "Reporting Persons."

Polaris III, the general partner of PVP III, Entrepreneurs' III and Founders' III, may be deemed to have sole power to vote and sole power to dispose of shares of the issuer directly owned by PVP III, Entrepreneurs' III and Founders' III. Flint, McGuire and Spoon are the managing members of Polaris III and may be deemed to have shared power to vote and shared power to dispose of shares of the issuer directly owned by PVP III, Entrepreneurs' III and Founders' III.

ITEM 2(B). ADDRESS OF PRINCIPAL OFFICE

The address for each of the Reporting Persons is:

Polaris Venture Partners 1000 Winter Street, Suite 3350 Waltham, Massachusetts 02451

ITEM 2(C) CITIZENSHIP

PVP III, Entrepreneurs' III and Founders' III are Delaware limited partnerships; Polaris III is a Delaware Limited Liability Company; Flint, McGuire and Spoon are United States citizens.

ITEM 2(D) AND (E). TITLE OF CLASS OF SECURITIES AND CUSIP NUMBER

Common Stock
CUSIP # 02043Q107

ΤN

ITEM 3. Not Applicable

ITEM 4. OWNERSHIP

The following information with respect to the ownership of the Common Stock of the issuer by the persons filing this Statement is provided as of December 30, 2005:

(a) Amount beneficially owned:

See Row 9 of cover page for each Reporting Person.

(b) Percent of Class:

CUSIP NO. 02043Q107

13 G

Page 10 of 16

See Row 11 of cover page for each Reporting Person.

- (c) Number of shares as to which such person has:
  - (i) Sole power to vote or to direct the vote:

See Row 5 of cover page for each Reporting Person.

(ii) Shared power to vote or to direct the vote:

See Row 6 of cover page for each Reporting Person.

(iii) Sole power to dispose or to direct the
 disposition of:

See Row 7 of cover page for each Reporting Person.

(iv) Shared power to dispose or to direct the disposition of:

See Row 8 of cover page for each Reporting Person.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.

Not applicable.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

Under certain circumstances set forth in the limited partnership agreements of PVP III, Entrepreneurs' III and Founders' III, the general and limited partners of each of such entities may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the issuer owned by each such entity of which they are a partner.

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH

ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT

HOLDING COMPANY

Not applicable.

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP.

Not applicable.

NOTICE OF DISSOLUTION OF GROUP. ITEM 9.

Not applicable.

ITEM 10. CERTIFICATION.

Not applicable.

Page 11 of 16

#### SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and

Dated: February 13, 2006

POLARIS VENTURE PARTNERS III, L.P., /s/ Kevin Littlejohn

\_\_\_\_\_ a Delaware Limited Partnership

Signature

Kevin Littlejohn Authorized Signatory

POLARIS VENTURE PARTNERS /s/ Kevin Littlejohn

ENTREPRENEURS' FUND III, L.P.,

a Delaware Limited Partnership Signature

Kevin Littlejohn Authorized Signatory

POLARIS VENTURE PARTNERS /s/ Kevin Littlejohn

FOUNDERS' FUND III, L.P., \_\_\_\_\_

a Delaware Limited Partnership Signature

> Kevin Littlejohn Authorized Signatory

POLARIS VENTURE /s/ Kevin Littlejohn

MANAGEMENT CO. III, L.L.C., \_\_\_\_\_

Signature

a Delaware Limited Liability Company Kevin Littlejohn

Authorized Signatory

JONATHAN A. FLINT /s/ Kevin Littlejohn

Signature Kevin Littlejohn Authorized Signatory Page 12 of 16 TERRANCE G. MCGUIRE /s/ Kevin Littlejohn -----Signature Kevin Littlejohn Authorized Signatory ALAN G. SPOON /s/ Kevin Littlejohn -----Signature Kevin Littlejohn Authorized Signatory Page 13 of 16 EXHIBIT INDEX Found on Sequentially Exhibit Numbered Page \_\_\_\_\_ Exhibit A: Agreement of Joint Filing 14 Exhibit B: Reference to Kevin Littlejohn as Authorized Signatory 16

Page 14 of 16

#### EXHIBIT A

#### Agreement of Joint Filing

The undersigned hereby agree that a single Schedule 13G (or any amendment thereto) relating to the Common Stock of Alnylam Pharmaceuticals, Inc. shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13G.

Dated: February 13, 2006

POLARIS VENTURE PARTNERS III, L.P., a Delaware Limited Partnership

/s/ Kevin Littlejohn

Signature Kevin Littlejohn

Authorized Signatory

POLARIS VENTURE PARTNERS /s/ Kevin Littlejohn ENTREPRENEURS' FUND III, L.P., \_\_\_\_\_ a Delaware Limited Partnership Signature Kevin Littlejohn Authorized Signatory POLARIS VENTURE PARTNERS /s/ Kevin Littlejohn FOUNDERS' FUND III, L.P., \_\_\_\_\_ a Delaware Limited Partnership Signature Kevin Littlejohn Authorized Signatory POLARIS VENTURE /s/ Kevin Littlejohn MANAGEMENT CO. III, L.L.C., \_\_\_\_\_ a Delaware Limited Liability Company Signature Kevin Littlejohn Authorized Signatory JONATHAN A. FLINT /s/ Kevin Littlejohn \_\_\_\_\_\_ Signature Kevin Littlejohn Authorized Signatory Page 15 of 16 TERRANCE G. MCGUIRE /s/ Kevin Littlejohn \_\_\_\_\_\_ Signature Kevin Littlejohn Authorized Signatory

ALAN G. SPOON /s/ Kevin Littlejohn

\_\_\_\_\_

Signature

Kevin Littlejohn Authorized Signatory

Page 16 of 16

#### EXHIBIT B

#### REFERENCE TO KEVIN LITTLEJOHN AS AUTHORIZED SIGNATORY

Kevin Littlejohn has signed the enclosed documents as Authorized Signatory. Note that copies of the applicable Agreement to File Jointly and Statement Appointing Designated Filer and Authorized Signatory are already on file with the

appropriate agencies.