ALNYLAM PHARMACEUTICALS, INC. Form SC 13G/A February 14, 2005

> 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. 1)*

> Alnylam Pharmaceuticals, Inc. (Name of Issuer)

Common Stock (Title of Class of Securities)

> 02043Q107 (CUSIP Number)

December 31, 2004 (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 18 Exhibit Index on Page 15

CUSIP NO. 02043Q107

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1 NAME OF REPORTING

SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Polaris Venture Partners III, L.P. ("PVP III") Tax ID Number:

2 CHECK	THE APPROP	RIATE BOX IF A MEMBER OF A GROUP*		[] [X]
3 SEC U	E ONLY			
4 CITIZ		LACE OF ORGANIZATION		
	 5 SO	LE VOTING POWER	·	
NUMBER O	II ma Jo St ma	313,914 shares, except that Polaris Venture Manager I, L.L.C. ("Polaris III"), the general partner of y be deemed to have sole power to vote these shar nathan A. Flint ("Flint"), Terrance G. McGuire (" ephen D. Arnold ("Arnold") and Alan G. Spoon ("Sp naging members of Polaris III, may be deemed to be ared power to vote these shares.	PVP II res, and McGuire poon"),	II, d ≥"),
SHARES BENEFICIAL	 Y 6 SH	ARED VOTING POWER		
OWNED BY EACH REPORTIN		e response to row 5.		
PERSON		LE DISPOSITIVE POWER		
	pa di Sp	313,914 shares, except that Polaris III, the gene rtner of PVP III, may be deemed to have sole powe spose of these shares, and Flint, McGuire, Arnolc oon, the managing members of Polaris III, may be ve shared power to dispose of these shares.	er to 1 and	to
	 8 SH	ARED DISPOSITIVE POWER		
	Se	e response to row 7.		
9 AGGRE	GATE AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON		
2,313	914			
 10 CHECK	BOX IF THE	AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHA	RES*	
[]				
11 PERCE	IT OF CLASS	REPRESENTED BY AMOUNT IN ROW 9		
11.1%				
12 TYPE)F REPORTIN	G PERSON*		
PN				
CUSIP NO.				 £ 18

_____ _____ NAME OF REPORTING 1 SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Polaris Venture Partners Entrepreneurs' Fund III, L.P. ("Entrepreneurs' III") Tax ID Number: _____ CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* 2 (a) [] (b) [X] _____ 3 SEC USE ONLY _____ CITIZENSHIP OR PLACE OF ORGANIZATION 4 Delaware _____ _____ SOLE VOTING POWER 5 60,124 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, Arnold and Spoon, the managing members of Polaris III, may be deemed to have shared power to vote these shares. _____ NUMBER OF 6 SHARED VOTING POWER SHARES BENEFICIALLY See response to row 5. OWNED BY _____ 7 SOLE DISPOSITIVE POWER EACH REPORTING 60,124 shares, except that Polaris III, the general partner PERSON WITH of Entrepreneurs' III, may be deemed to have sole power to dispose of these shares, and Flint, McGuire, Arnold and Spoon, the managing members of Polaris III, may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER 8 See response to row 7. _____ 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 60,124 _____ 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* [] _____ 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.3% _____

12	TYPE OF REPORTING PERSON*					
	PN					
CUSI	P NO. 0204)7 13 G Page	e 4 of 18		
1	NAME OF RI SS OR I.R		RTING IDENTIFICATION NO. OF ABOVE PERSON			
	Polaris Ve Tax ID Num		are Partners Founders' Fund III, L.P. ("Founders' III" ::)		
2	2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) (b)					
3	SEC USE O	NLY				
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware					
			SOLE VOTING POWER			
			36,492 shares, except that Polaris III, the general p of Founders' III, may be deemed to have sole power to these shares, and Flint, McGuire, Arnold and Spoon, managing members of Polaris III, may be deemed to hav power to vote these shares.	o vote the		
	MBER OF HARES	6	SHARED VOTING POWER			
	FICIALLY NED BY EACH PORTING		See response to row 5.			
RE		7	SOLE DISPOSITIVE POWER			
	ERSON NITH		36,492 shares, except that Polaris III, the general p of Founders' III, may be deemed to have sole power to of these shares, and Flint, McGuire, Arnold and Spoor managing members of Polaris III, may be deemed to hav power to dispose of these shares.	o dispose n, the		
		8	SHARED DISPOSITIVE POWER			
			See response to row 7.			
9	AGGREGATE	AMC	DUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	36,492					
10	CHECK BOX	IF	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHAR	 ES*		

[]

11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.2%					
 12	TYPE OF R	EPOF	<pre></pre>			
	12 TYPE OF REPORTING PERSON*					
CUSI	P NO. 0204	3Q1(07 13 G	Page !	5 of	18
1	NAME OF R SS OR I.R		RTING IDENTIFICATION NO. OF ABOVE PERSON			
	Polaris V Tax ID Nu		are Management Co. III, L.L.C. ("Polaris III") f:			
2						[] [X]
3	SEC USE ONLY					
4	CITIZENSH Delaware	IP (DR PLACE OF ORGANIZATION			
		5	SOLE VOTING POWER			
			2,410,530 shares, of which 2,313,914 are directly PVP III, 60,124 are directly owned by Entreprener 36,492 are directly owned by Founders' III. Polar general partner of PVP III, Entrepreneurs' III ar III, may be deemed to have sole power to vote the and Flint, McGuire, Arnold and Spoon, the managir Polaris III, may be deemed to have shared power to shares.	urs' II ris III nd Four ese sha ng memb	II a I, t ndei ares bers	and the ts' s, s of
	UMBER OF SHARES	6	SHARED VOTING POWER			
	NEFICIALLY DWNED BY EACH REPORTING PERSON WITH		See response to row 5.			
		7	SOLE DISPOSITIVE POWER			
			2,410,530 shares, of which 2,313,914 are directly PVP III, 60,124 are directly owned by Entrepreneu 36,492 are directly owned by Founders' III. Polar general partner of PVP III, Entrepreneurs' III ar III, may be deemed to have sole power to vote the and Flint, McGuire, Arnold and Spoon, the managir Polaris III, may be deemed to have shared power to these shares.	urs' II ris III nd Four ese sha ng memb	II a I, t ndei ares oers	and the ts' 3, 3 of
		8	SHARED DISPOSITIVE POWER			

Edgar Filing: ALNYLAM PHARMACEUTICALS, INC. - Form SC 13G/A See response to row 7. _____ _____ _____ 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,410,530 _____ 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* [] _____ 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 11.6% _____ 12 TYPE OF REPORTING PERSON* 00 _____ CUSIP NO. 02043Q107 13 G Page 6 of 18 _____ 1 NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Jonathan A. Flint ("Flint") Tax ID Number: _____ CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* 2 (a) [] (b) [X] _____ 3 SEC USE ONLY _____ CITIZENSHIP OR PLACE OF ORGANIZATION 4 U.S. Citizen _____ _____ 5 SOLE VOTING POWER 0 shares. _____ SHARED VOTING POWER 6 2,410,530 shares, of which 2,313,914 are directly owned by PVP III, 60,124 are directly owned by Entrepreneurs' III and 36,492 are directly owned by Founders' III. Polaris III is the general partner of PVP III, Entrepreneurs' III and Founders' III. Flint is a managing member of Polaris III, and SHARES may be deemed to have shared power to vote these shares. BENEFICIALLY OWNED BY _____ 7 SOLE DISPOSITIVE POWER EACH REPORTING

PERSON WITH		0 shares.						
		8	8 SHARED DISPOSITIVE POWER					
			2,410,530 shares, of which 2,313,914 are directl PVP III, 60,124 are directly owned by Entreprene 36,492 are directly owned by Founders' III. Pola the general partner of PVP III, Entrepreneurs' I Founders' III. Flint is a managing member of Pol may be deemed to have shared power to dispose of shares.	eurs' III and aris III is III and .aris III, and				
9	AGGREGAT REPORTIN		DUNT BENEFICIALLY OWNED BY EACH RSON					
	2,410,53	0						
10			THE AGGREGATE AMOUNT IN ROW (9) TAIN SHARES*					
	[]							
11	PERCENT	OF CI	LASS REPRESENTED BY AMOUNT IN ROW 9					
	11.6%							
12	TYPE OF	REPOF	RTING PERSON*					
	IN							
CUSI	IP NO. 020	43Q10)7 13 G	Page 7 of 1				
1	NAME OF SS OR I.		RTING IDENTIFICATION NO. OF ABOVE PERSON					
	Terrance Tax ID N		AcGuire ("McGuire") C:					
2	СНЕСК ТН	E APP	PROPRIATE BOX IF A MEMBER OF A GROUP*	(a) [(b) [X				
3	SEC USE	ONLY						
4	CITIZENSHIP OR PLACE OF ORGANIZATION							
	U.S. Cit	izen						
			SOLE VOTING POWER					
			0 shares.					
		6	SHARED VOTING POWER					

SHARES BENEFICIALLY OWNED BY EACH		2,410,530 shares, of which 2,313,914 are directly owned PVP III, 60,124 are directly owned by Entrepreneurs' III 36,492 are directly owned by Founders' III. Polaris III the general partner of PVP III, Entrepreneurs' III and Founders' III. McGuire is a managing member of Polaris I and may be deemed to have shared power to vote these sha	I and is		
P	PORTING ERSON	7 SOLE DISPOSITIVE POWER			
	WITH	0 shares.			
		8 SHARED DISPOSITIVE POWER 2,410,530 shares, of which 2,313,914 are directly owned PVP III, 60,124 are directly owned by Entrepreneurs' III 36,492 are directly owned by Founders' III. Polaris III the general partner of PVP III, Entrepreneurs' III and Founders' III. McGuire is a managing member of Polaris I and may be deemed to have shared power to dispose of the shares.	I and is		
9	AGGREGATE REPORTING	AMOUNT BENEFICIALLY OWNED BY EACH			
	2,410,530				
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*				
	[]				
11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9		DF CLASS REPRESENTED BY AMOUNT IN ROW 9			
	11.6%				
12	TYPE OF R	EPORTING PERSON*			
	IN				
CUSI	P NO. 0204	3Q107 13 G Page 8	of 18		
1	NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON				
	Stephen D Tax ID Nu:	. Arnold ("Arnold") mber:			
2			[] [X]		
3	SEC USE ONLY				

4 CITIZENSHIP OR PLACE OF ORGANIZATION

U.S. Citizen

NUMBER OF SHARES BENEFICIALLY OWNED BY		5	SOLE VOTING POWER
			0 shares.
		6	SHARED VOTING POWER
			2,410,530 shares, of which 2,313,914 are directly owned by PVP III, 60,124 are directly owned by Entrepreneurs' III and 36,492 are directly owned by Founders' III. Polaris III is the general partner of PVP III, Entrepreneurs' III and Founders' III. Arnold is a managing member of Polaris III, and may be deemed to have shared power to vote these shares.
RE	EACH PORTING	7	SOLE DISPOSITIVE POWER
	PERSON WITH		0 shares.
			SHARED DISPOSITIVE POWER
			2,410,530 shares, of which 2,313,914 are directly owned by PVP III, 60,124 are directly owned by Entrepreneurs' III and 36,492 are directly owned by Founders' III. Polaris III is the general partner of PVP III, Entrepreneurs' III and Founders' III. Arnold is a managing member of Polaris III, and may be deemed to have shared power to dispose of these shares.
9	ACCDECATE	7 MO	UNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
9		AMO	JNI BENEFICIALLI OWNED BI EACH REFORIING FERSON
	2,410,530		
10	СНЕСК ВОХ	IF	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*
	[]		
11		F CL.	ASS REPRESENTED BY AMOUNT IN ROW 9
	11.6%		
12	TYPE OF R	EPOR	TING PERSON*
	IN		
CUSI	P NO. 0204	3Q10	7 13 G Page 9 of 1
1	NAME OF R SS OR I.R		TING IDENTIFICATION NO. OF ABOVE PERSON

Alan G. Spoon ("Spoon") Tax ID Number: _____ 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 0 shares. _____ SHARED VOTING POWER 6 2,410,530 shares, of which 2,313,914 are directly owned by PVP III, 60,124 are directly owned by Entrepreneurs' III and 36,492 are directly owned by Founders' III. Polaris III is the general partner of PVP III, Entrepreneurs' III and NUMBER OF SHARES Founders' III. Spoon is a managing member of Polaris III, BENEFICIALLY and may be deemed to have shared power to vote these shares. OWNED BY -----EACH 7 SOLE DISPOSITIVE POWER REPORTING PERSON 0 shares. _____ WITH SHARED DISPOSITIVE POWER 8 2,410,530 shares, of which 2,313,914 are directly owned by PVP III, 60,124 are directly owned by Entrepreneurs' III and 36,492 are directly owned by Founders' III. Polaris III is the general partner of PVP III, Entrepreneurs' III and Founders' III. Spoon is a managing member of Polaris III, and may be deemed to have shared power to dispose of these shares. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 9 2,410,530 _____ 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* [] _____ 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 11.6% _____ TYPE OF REPORTING PERSON* 12 ΤN _____

CUSIP NO. 02043Q107

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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"), Stephen D. Arnold ("Arnold") and Alan G. Spoon ("Spoon"). Flint, McGuire, Arnold 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, Arnold 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, Arnold and Spoon are United States citizens.

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

Common Stock CUSIP # 02043Q107

- 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 31, 2004: CUSIP NO. 020430107 13 G Page 11 of 18 (a) Amount beneficially owned: See Row 9 of cover page for each Reporting Person. (b) Percent of Class: See Row 11 of cover page for each Reporting Person. (c) Number of shares as to which such person has: Sole power to vote or to direct the vote: (i) 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.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP.

Not applicable.

CUSIP NO. 02043Q107

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ITEM 10. CERTIFICATION.

Not applicable.

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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 correct.

Dated: February 14, 2005

POLARIS VENTURE PARTNERS III, L.P., /s/ Kevin Littlejohn a Delaware Limited Partnership _____ Signature

> Kevin Littlejohn Authorized Signatory

/s/ Kevin Littlejohn

Signature

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

Kevin Littlejohn Authorized Signatory

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

/s/ Kevin Littlejohn _____ Signature

Kevin Littlejohn Authorized Signatory

POLARIS VENTURE MANAGEMENT CO. III, L.L.C., a Delaware Limited Liability Company

/s/ Kevin Littlejohn _____ Signature

Kevin Littlejohn Authorized Signatory

JONATHAN A. FLINT

/s/ Kevin Littlejohn

-----Signature

Kevin Littlejohn Authorized Signatory

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TERRANCE G. MCGUIRE /s/ Kevin Littlejohn _____ Signature Kevin Littlejohn Authorized Signatory STEPHEN D. ARNOLD /s/ Kevin Littlejohn -----Signature Kevin Littlejohn Authorized Signatory ALAN G. SPOON /s/ Kevin Littlejohn -----Signature Kevin Littlejohn Authorized Signatory Page 15 of 18 EXHIBIT INDEX

	Found on
	Sequentially
Exhibit	Numbered Page
Exhibit A: Agreement of Joint Filing	16
Exhibit B: Reference to Kevin Littlejohn as Authorized Signatory	18

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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 14, 2005

POLARIS VENTURE PARTNERS III, L.P., /s/ Kevin Littlejohn a Delaware Limited Partnership

Kevin Littlejohn Authorized Signatory

Signature

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND III, L.P.,	/s/ Kevin Littlejohn				
a Delaware Limited Partnership	Signature				
	Kevin Littlejohn Authorized Signatory				
POLARIS VENTURE PARTNERS FOUNDERS' FUND III, L.P.,	/s/ Kevin Littlejohn				
a Delaware Limited Partnership	Signature				
	Kevin Littlejohn Authorized Signatory				
POLARIS VENTURE MANAGEMENT CO. III, L.L.C.,	/s/ Kevin Littlejohn				
a Delaware Limited Liability Company	Signature				
	Kevin Littlejohn Authorized Signatory				
JONATHAN A. FLINT	/s/ Kevin Littlejohn				
	Signature				
	Kevin Littlejohn Authorized Signatory				
	Page 17 of 18				
TERRANCE G. MCGUIRE	/s/ Kevin Littlejohn				
	Signature				
	Kevin Littlejohn Authorized Signatory				
STEPHEN D. ARNOLD	/s/ Kevin Littlejohn				
	Signature				
	Kevin Littlejohn Authorized Signatory				
ALAN G. SPOON	/s/ Kevin Littlejohn				
	Signature				
	Kevin Littlejohn Authorized Signatory				

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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.