ALNYLAM PHARMACEUTICALS, INC.

Form SC 13G/A February 14, 2005

OMB APPROVAL

OMB Number: 3235-0145
Expires: December 31, 2005
Estimated average burden
hours per response . . . 11

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

·
SCHEDULE 13G
UNDER THE SECURITIES EXCHANGE ACT OF 1934
(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)
[X] Rule 13d-1(c)
[] 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 the disclosures provided in a prior cover page.
The information required in 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).
Page 1 of 18 Pages

1

CUSI	P NO.	02043Q10	13G	PAGE 2	OF 18	PAGES
1		S. IDENTI	RTING PERSONS CICATION NOS. OF ABOVE PERSONS (ENTITIES (ONLY)		
		ARCH Ve	enture Fund V, L.P.			
2	CHEC	K THE APPI	OPRIATE BOX IF A MEMBER OF A GROUP (SEE	INSTRUCT	IONS)	
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3	SEC U	JSE ONLY				
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9	AGGRI	EGATE AMOU	NT BENEFICIALLY OWNED BY EACH REPORTING I	PERSON		
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10			GGREGATE AMOUNT IN ROW (9) EXCLUDES CERTA	AIN SHAR	 ES	
11	PERCE	ENT OF CLA	SS REPRESENTED BY AMOUNT IN ROW (9)			
		9.41%				
12	TYPE	OF REPOR	ING PERSON (SEE INSTRUCTIONS)			
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*SEE INSTRUCTIONS BEFORE FILLING OUT!

Page 2 of 18 Pages

CUSIP NO. 02043Q	2107 	13G			PAGE 3	 B OF 	18 	PAGES
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9.41% ______ 12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PΝ *SEE INSTRUCTIONS BEFORE FILLING OUT Page 3 of 18 Pages CUSIP NO. 02043Q107 13G PAGE 4 OF 18 PAGES 1 NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) ARCH Venture Partners V, L.P. 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) [] (b) [] 3 SEC USE ONLY 4 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware 5 SOLE VOTING POWER 0 NUMBER OF -----SHARES 6 SHARED VOTING POWER BENEFICIALLY _____ OWNED BY 1,956,527 EACH REPORTING _____ PERSON 7 SOLE DISPOSITIVE POWER WITH _____ 8 SHARED DISPOSITIVE POWER 1,956,527

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2 CHECK THE	E APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE IN	STRUCTIONS)
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9	AGGREGATE AMOU		CIALLY OWNE	D BY EACH	REPORTING	PERSON		
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1	NAMES OF REPOR I.R.S. IDENTIF	TING PERSO		E PERSONS	(ENTITIES	ONLY)		
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1 NAMES OF REPO	RTI	NG PERSO	ONS												
Keith	Cra	ndell													
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NUMBER OF SHARES	6 SHARED	VOTING POWER	
BENEFICIALLY OWNED BY		1,956,527	
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12 TYPE OF REPOR	TING PERSO	N (SEE INSTRUCTIONS)	
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		Page 7 of 18 Pages	
CUSIP NO. 02043Q	107	13G	PAGE 8 OF 18 PAGES
1 NAMES OF REPO		ONS OS. OF ABOVE PERSONS (ENT	TTTEC ONLY)

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Robert Nelsen

2 CHECK THE AP	PROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTION	 ONS)
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3 SEC USE ONLY	 :	
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	5 SOLE VOTING POWER	
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BENEFICIALLY OWNED BY EACH	1,956,527	
REPORTING PERSON	7 SOLE DISPOSITIVE POWER	
WITH	0	
	8 SHARED DISPOSITIVE POWER	
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9 AGGREGATE AM	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
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	AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARE:	5
	CLASS REPRESENTED BY AMOUNT IN ROW (9)	
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	ORTING PERSON (SEE INSTRUCTIONS)	
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CUSIP NO. 02043	Q107	13G	PAGE	9 OF	18	PAGES
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2 CHECK THE AP	PROPRIATE E	BOX IF A MEMBER OF A GROUP (SEE	INSTRU	CTION	IS)	
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10 CHECK IF THE (SEE INSTRU	AGGREGATE	AMOUNT IN ROW (9) EXCLUDES CER	FAIN SHA	ARES		
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9.41%						
12 TYPE OF REPO		 DN (SEE INSTRUCTIONS)				

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*SEE INSTRUCTIONS BEFORE FILLING OUT!

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Schedule 13G

- Item 1(a). Name of Issuer: Alnylam Pharmaceuticals, Inc. (the "Issuer").

- Item 2(b). Address of Principal Business Office or, if None, Residence: 8725 W. Higgins Road, Suite 290, Chicago, IL 60631.
- Item 2(d). Title of Class of Securities: Common Stock, \$.01 par value (the "Common Stock").
- Item 2(e). CUSIP Number: 02043Q107
- Item 3. If this statement is filed pursuant to Sections 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

 Not Applicable.
- Item 4. Ownership.
 - (a) Amount beneficially owned:

ARCH Venture Fund V is the record owner of 1,944,755 shares of Common Stock (the "ARCH Venture Fund V Shares") as of December 31, 2004. ARCH V Entrepreneur Fund is the record owner of 11,772 shares of Common Stock (the "ARCH V Entrepreneur Fund Shares" and, together with the ARCH Venture Fund V Shares, the "Record Shares") as of December 31, 2004. AVP V LP is the sole general partner of ARCH Venture Fund V and ARCH V

Entrepreneurs Fund. AVP V LLC is the sole

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general partner of AVP V LP. By virtue of their relationship as affiliated entities who have overlapping general partners and managing directors, each Reporting Entity may be deemed to share the power and direct the disposition and vote of the Record Shares. As individual general partners or managing directors of each of AVP V LLC and AVP V LP, each Managing Director may also be deemed to share the power and direct the disposition and vote of the Record Shares.

(b) Percent of class:

Reporting entities and Reporting Persons: 9.41%, and is calculated based 20,801,208 shares outstanding as of December 31, 2004, which is the sum of (per guidance from the company) the amount reported of 20,085,590 shares of Common Stock reported to be outstanding in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 15, 2004 and additional shares (715,618) issued per 8-K filed on December 31, 2004.

- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote:
 - O shares for each Reporting Person
 - (ii) Shared power to vote or to direct the vote:

Each of the Reporting Persons: 1,956,527

- (iii) Sole power to dispose or to direct the disposition of:
 - O shares for each Reporting Person
- (iv) Shared power to dispose or to direct the disposition of:

Each of the Reporting Persons: 1,956,527

Each Reporting Person disclaims beneficial ownership of such shares of Common Stock except for the shares, if any, such Reporting Person holds of record.

- 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.

Not Applicable.

Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.

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CUSIP NO.	02043Q107	13G		PAGE 12 OF 18 PAGES
	Not Applicable.			
Item 8.	Identification a	nd Classification of M	embers o	of the Group.
		The Reporting Persons used in Rule 13d-1(b)(y disclaim membership
Item 9.	Notice of Dissol	ution of Group.		
	Not Applicable.			
Item 10.	Certification.			
		This statement on Sche 3d-1(b) nor Section 24		
		Page 12 of 18 Pages		
CUSIP NO.		13G		PAGE 13 OF 18 PAGES
		SIGNATURES		
		ry and to the best of set forth in this sta		
Dated: Feb	ruary 11, 2005	ARCH VENTURE	FUND V,	L.P.
		By: ARCH Ven its Gene		tners V, L.P.
			Venture General	Partners V, LLC
			By:	*
				even Lazarus naging Director
		ARCH V ENTREPRENE	URS FUND), L.P.
		By: ARCH Ven its Gene		tners V, L.P.
			Venture General	Partners V, LLC Partner
			By:	*
				even Lazarus naging Director

ARCH VENTURE PARTNERS V, L.P. By: ARCH Venture Partners V, LLC its General Partner By: -----Steven Lazarus Managing Director ARCH VENTURE PARTNERS V, LLC By: Steven Lazarus Managing Director Page 13 of 18 Pages CUSIP NO. 02043Q107 13G PAGE 14 OF 18 PAGES _____ _____ _____ Steven Lazarus Keith Crandell Robert Nelsen _____ Clinton Bybee * By: /s/ Mark McDonnell

This Schedule 13G was executed by Mark McDonnell pursuant to Powers of Attorney attached hereto as Exhibit 2 and incorporated herein by reference.

Mark McDonnell as Attorney-in-Fact

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