

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(AMENDMENT NO. __)*

Alnylam Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

02043Q107

(CUSIP Number)

June 3, 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)
 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).

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EXHIBIT 1

1 NAMES OF REPORTING PERSONS
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Abingworth Management Limited ("Abingworth Management")

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

England

5 SOLE VOTING POWER

2,343,159 shares, of which 1,176,268 shares are directly owned by ABV III A, 718,031 shares are directly owned by ABV III B, 430,117 shares are directly owned by ABV III C and 18,743 shares

are directly owned by ABV III Executives. Abingworth Management, the manager of ABV III A, ABV III B, ABV III C and ABV III Executives may be deemed to have sole power to vote these shares.

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

6 SHARED VOTING POWER

See response in row 5

7 SOLE DISPOSITIVE POWER

2,343,159 shares, of which 1,176,268 shares are directly owned by ABV III A, 718,031 shares are directly owned by ABV III B, 430,117 shares are directly owned by ABV III C and 18,743 shares are directly owned by ABV III Executives. Abingworth Management, the manager of ABV III A, ABV III B, ABV III C and ABV III Executives may be deemed to have sole power to dispose of these shares.

8 SHARED DISPOSITIVE POWER

See response in row 7.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,343,159 shares

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) []

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11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12.2%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

CO

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EXHIBIT 1

1 NAMES OF REPORTING PERSONS

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Abingworth Bioventures III A L.P. ("ABV III A")

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

England

5 SOLE VOTING POWER

1,176,268 shares, except that Abingworth Management, the manager of ABV III A, may be deemed to have sole power to vote these shares.

NUMBER OF

SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

See response to row 5.

7 SOLE DISPOSITIVE POWER

1,176,268 shares, except that Abingworth Management, the manager of ABV III A, may be deemed to have sole power to dispose of these shares.

8 SHARED DISPOSITIVE POWER

See response to row 7.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,343,159 shares

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) []

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12.2%

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12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

PN

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EXHIBIT 1

1 NAMES OF REPORTING PERSONS

I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Abingworth Bioventures III B L.P. ("ABV III B")

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

England

5 SOLE VOTING POWER

718,031 shares, except that Abingworth Management, the manager of ABV III B, may be deemed to have sole power to vote these shares.

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

See response to row 5.

7 SOLE DISPOSITIVE POWER

718,031 shares, except that Abingworth Management, the manager of ABV III B, may be deemed to have sole power to dispose of these shares.

8 SHARED DISPOSITIVE POWER

See response to row 7.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,343,159 shares

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) []

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12.2%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

PN

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1 NAMES OF REPORTING PERSONS
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Abingworth Bioventures III C L.P. ("ABV III C")

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

England

5 SOLE VOTING POWER
430,117 shares, except that Abingworth Management, the manager of ABV III C, may be deemed to have sole power to vote these shares.

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

See response to row 5.

7 SOLE DISPOSITIVE POWER
430,117 shares, except that Abingworth Management, the manager of ABV III C, may be deemed to have sole power to dispose of these shares.

8 SHARED DISPOSITIVE POWER

See response to row 7.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,343,159 shares

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) []

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12.2%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

PN

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EXHIBIT 1

1 NAMES OF REPORTING PERSONS
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Abingworth Bioventures III Executives L.P. ("ABV III Executives")

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 18,743 shares, except that Abingworth Management, the manager of ABV III Executives, may be deemed to have sole power to vote these shares.

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

6 SHARED VOTING POWER

See response to row 5.

7 SOLE DISPOSITIVE POWER

18,743 shares, except that Abingworth Management, the manager of ABV III Executives, may be deemed to have sole power to dispose of these shares.

8 SHARED DISPOSITIVE POWER

See response to row 7.

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,343,159 shares

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) []

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

12.2%

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

PN

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

Item 1(b). Address of Issuer's Principal Executive Offices:
300 Third Street, Cambridge, Massachusetts 02142

Item 2(a). Name of Person Filing:
Abingworth Management Limited ("Abingworth Management"), Abingworth Bioventures III A L.P. ("ABV III A"), Abingworth Bioventures III B L.P. ("ABV III B"), Abingworth Bioventures III C L.P. ("ABV III C"), and Abingworth Bioventures III Executives L.P. ("ABV III Executives"). The foregoing individuals are collectively referred to as the "Reporting Persons."

Abingworth Management, the manager of ABV III A, ABV III B, ABV III C and ABV III Executives, may be deemed to have sole power to vote and sole power to dispose of shares of the Issuer directly owned by ABV III A, ABV III B, ABV III C and ABV III Executives.

Item 2(b). Address of Principal Business Office or, if None, Residence:
The business address for Abingworth Management, ABV III A, ABV III

B, ABV III C and ABV III Executives is c/o Abingworth Management Limited, Princes House, 38 Jermyn Street, London, England SW1Y 6DN.

- Item 2(c). Citizenship:
Abingworth Management is a corporation organized under the laws of England. ABV III A, ABV III B and ABV III C are limited partnerships organized under the laws of England. ABV III Executives is a limited partnership organized under the laws of Delaware.
- Item 2(d). Title of Class of Securities:
Common Stock
- Item 2(e). CUSIP Number:
02043Q107
- Item 3. If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b), check whether the person filing is a:

Not applicable.
- Item 4. Ownership.

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EXHIBIT 1

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 June 3, 2004:

- (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:
- (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:
See row 7 of cover page for each Reporting Person.
- (iv) Shared power to dispose or to direct the disposition:
See row 8 of cover page for each Reporting Person.

Each of Abingworth Management, ABV III A, ABV III B, ABV III C and ABV III Executives, expressly disclaims beneficial ownership of any shares of Common Stock of the Issuer except, in the case of ABV III A, for the 1,176,268 shares of Common Stock that it holds of record, in the case of ABV III B, for the 718,031 shares of Common Stock that it holds of record, in the case of ABV III C, for the 430,117 shares of Common Stock that it holds of record, and in the case of ABV III Executives, for the 18,743 shares of Common Stock that it 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.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable.

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Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certifications.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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EXHIBIT 1

SIGNATURE

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.

Date: June 14, 2004

ABINGWORTH MANAGEMENT LIMITED

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III A L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III B L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III C L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III EXECUTIVES L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

EXHIBIT 1

AGREEMENT

Pursuant to Rule 13d-1(k) (1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required by Schedule 13 need be filed with respect to the ownership by each of the undersigned of shares of stock of Alnylam Pharmaceuticals, Inc.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

EXECUTED this 14th day of June, 2004.

ABINGWORTH MANAGEMENT LIMITED

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III A L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III B L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III C L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell
Title: Executive Director

ABINGWORTH BIOVENTURES III EXECUTIVES L.P.

By: Abingworth Management Limited, its Manager

/s/ James Abell

By: _____

Name: James Abell

Title: Executive Director