

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

AASTROM BIOSCIENCES, INC.  
(Name of Issuer)

Common Stock  
(Title of Class of Securities)

00253U107  
(CUSIP Number)

April 5, 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 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).

CUSIP No. 00253U107

1. Name of Reporting Person:

HBK Investments L.P.

2. Check the Appropriate Box if a Member of a Group:

(a) / /

(b) / /

3. SEC Use Only

4. Citizenship or Place of Organization: Delaware

Number of  
Shares  
Beneficially  
Owned By  
Each  
Reporting  
Person  
With

5. Sole Voting Power: Less than 5% of Issuer's outstanding shares of the class (1)(2)

6. Shared Voting Power: 0

7. Sole Dispositive Power: Less than 5% of Issuer's outstanding shares of the class (1)(2)

8. Shared Dispositive Power: 0

9. Aggregate Amount Beneficially Owned by Each Reporting Person:

Less than 5% of Issuer's outstanding shares of the Class (1)(2)

10. Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares:

/ /

11. Percent of Class Represented by Amount in Row (9): Less than 5%

12. Type of Reporting Person: PN

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- (1) The obligation to file this Schedule 13G arose as a result of shares of the Issuer's common stock and warrants issuable for shares of the Issuer's common stock (collectively, the "Shares") owned by Heimdall Investments Ltd. ("Heimdall") as of April 5, 2004. Heimdall subsequently reduced its beneficial ownership to less than 5% of the Issuer's outstanding common stock. HBK Investments L.P. ("Investments") has sole voting and dispositive power over these Shares pursuant to an Investment Management Agreement with Heimdall. Accordingly, Heimdall has no beneficial ownership of such Shares.
- (2) Investments' power is exercised by its general partner, HBK Partners II L.P., whose general partner is HBK Management L.L.C.

Item 1(a). Name of Issuer.

The name of the issuer is Aastrom Biosciences, Inc. (the "Issuer").

Item 1(b). Address of Issuer's Principal Executive Offices.

The principal executive offices of the Issuer are located at 24 Frank Lloyd Wright Drive, P.O. Box 376, Ann Arbor, Michigan 48106.

Item 2(a). Names of Persons Filing.

Pursuant to Rules 13d-1(k)(1)-(2) of Regulation 13D-G of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended (the "Act"), this Schedule 13G Statement is hereby filed by HBK Investments L.P., a Delaware limited partnership (the "Reporting Person"). Additionally, information is included herein with respect to the following persons (collectively, the "Controlling Persons"): HBK Partners II L.P., a Delaware limited partnership ("Partners II"), HBK Management L.L.C., a Delaware limited liability company ("Management") and Kenneth M. Hirsh, Laurence H. Lebowitz, William E. Rose, Richard L. Booth, David C. Haley and Jamiel A. Akhtar, members of Management, who may control Management ("Managers"). The Reporting Person and the Controlling Persons are sometimes hereinafter collectively referred to as the "Item 2 Persons."

Item 2(b). Address of Principal Business Office, or if None, Residence.

The principal business office for each of the Item 2 Persons is 300 Crescent Court, Suite 700, Dallas, Texas 75201.

Item 2(c). Citizenship.

All of the natural persons listed in Item 2(a) are citizens of the United States of America.

Item 2(d). Title of Class of Securities.

This statement relates to the Common Stock of the Issuer.

Item 2(e). CUSIP Number.

The CUSIP number of the Shares is 00253U107.

Item 3. Filing Pursuant to Rules 13d-1(b) or 13d-2(b).

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:

(a) / / Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);

(b) / / Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);

(c) / / Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);

(d) / / Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);

(e) / / An investment adviser in accordance with section 240.13d-1(b)(1)(ii)(E);

(f) / / An employee benefit plan or endowment fund in accordance with section 240.13d-1(b)(1)(ii)(F);

(g) / / A parent holding company or control person in accordance with section 240.13d-1(b)(1)(ii)(G);

(h) / / A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(i) / / A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);

(j) / / Group, in accordance with section 240.13d-1(b)(1)(ii)(J).

If this statement is filed pursuant to section 240.13d-1(c), check this

box /X/.

Item 4. Ownership.

(a) - (b)

Reporting Persons

Pursuant to an Investment Management Agreement with Heimdall, Investments may, pursuant to Rule 13d-3(a), be deemed to be the beneficial owner of the Shares.

Controlling Persons

Because of its position as the sole general partner of Investments, Partners II may be deemed to be the beneficial owner of the Shares.

Each of (1) Management, as sole general partner of Partners II, and (2) the Managers, as the controlling persons of Management may, pursuant to Rule 13d-3 of the Act, be deemed to be the beneficial owner of the Shares.

The Persons listed in Item 2(a) expressly declare that the filing of this statement on Schedule 13G shall not be construed as an admission that they are, for the purpose of Section 13(d) or 13(g) of the Act, the beneficial owners of any securities covered by this statement.

(c)

Reporting Persons

Pursuant to an Investment Management Agreement with Heimdall, and acting through its general partner, Partners II, Investments has the sole power to vote or direct the vote and to dispose or to direct the disposition of the Shares.

Controlling Persons

Acting through its general partner, Management, and in its capacity as the general partner of Investments, Partners II has the sole power to vote or to direct the vote and to dispose or to direct the disposition of the Shares.

In its capacity as the general partner of Partners II, Management has the sole power to vote or to direct the vote and to dispose or to direct the disposition of the Shares.

Managers

In their capacity as controlling persons of Management, the Managers have the sole power to vote or to direct the vote and to dispose or to direct the disposition of the Shares.

Item 5. Ownership of Five Percent or Less of a Class.

As of the filing date, Investments does not own 5% or more of the Class.

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.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

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.

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: April 15, 2004

HBK INVESTMENTS L.P.

By: /s/ Kevin O'Neal  
Kevin O'Neal  
Authorized Signatory (1)

(1) An Authorization Certificate authorizing Kevin O'Neal to act on behalf of HBK Investments L.P. was previously filed.