

SEC FILE NUMBER
000-22025

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00253U305

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

FORM 12b-25

NOTIFICATION OF LATE FILING

(Check one): Form 10-K Form 20-F Form 11-K Form 10-Q Form N-SAR Form N-CSR

For Period Ended: _____

- Transition Report on Form 10-K
 Transition Report on Form 20-F
 Transition Report on Form 11-K
 Transition Report on Form 10-Q
 Transition Report on Form N-SAR

For the Transition Period Ended: December 31, 2010

Read Instructions (on back page) Before Preparing Form. Please Print or Type.

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

N/A

PART I — REGISTRANT INFORMATION

Aastrom Biosciences, Inc.

Full Name of Registrant

N/A

Former Name if Applicable

24 Frank Lloyd Wright Drive, P.O. Box 376

Address of Principal Executive Office (Street and Number)

Ann Arbor, Michigan 48106

City, State and Zip Code

PART II — RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III — NARRATIVE

State below in reasonable detail the reasons why Forms 10-K, 20-F, 11-K, 10-Q, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

On January 28, 2011, the registrant received a comment letter from the staff of the Securities and Exchange Commission ("SEC") relating to its annual report on Form 10-K for the fiscal year ended June 30, 2010 and responded to these comments on February 18, 2011. In connection with the registrant's response to the SEC, on February 24, 2011, the Registrant filed amendments with the SEC to its annual report on Form 10-K for the fiscal year ended June 30, 2010 and its quarterly reports on Form 10-Q for the quarters ended September 30, 2009, December 31, 2009, March 31, 2010 and September 30, 2010 in order to restate its previously issued consolidated financial statements for all periods included in such reports. The registrant received a follow up comment letter from the SEC staff on March 29, 2011 and is currently working to resolve the matters in this comment letter. The matters raised predominately focus on (i) the appropriateness of the Black-Scholes valuation methodology used for the Class A warrants issued in January 2010, and (ii) the appropriateness of liability accounting for the Class B warrants issued in January 2010. As a result of the foregoing, the registrant was not able to complete its Form 10-K for the six month transition period ended December 31, 2010 by the filing deadline of March 31, 2011 without unreasonable effort and expense. The registrant expects to file the 2010 Transition Report on Form 10-K on or before the fifteenth calendar day following the prescribed due date.



PART IV — OTHER INFORMATION

(1) Name and telephone number of persons to contact in regard to this notification.

Scott C. Durbin,
Chief Financial Officer

(Name)

734

(Area Code)

930-5555

(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s).

Yes No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?

Yes No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

Aastrom Biosciences, Inc.

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date: March 31, 2011

By: /s/ Scott C. Durbin

Scott C. Durbin
Chief Financial Officer

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be filed with the form.