

September 5, 2013

**VIA EDGAR AND FEDERAL EXPRESS**

United States Securities and Exchange Commission  
 Division of Corporation Finance  
 Mail Stop 4561  
 100 F Street, N.E.  
 Washington, D.C. 20549  
 Attention: Jeffrey P. Riedler

**Re: Aastrom Biosciences, Inc.  
 Preliminary Proxy Statement on Schedule 14A  
 Filed August 26, 2013  
 File No. 001-35280**

Dear Mr. Riedler:

This letter is submitted on behalf of Aastrom Biosciences, Inc. (the “**Company**”) in response to the comment of the staff of the Division of Corporation Finance (the “**Staff**”) of the U.S. Securities and Exchange Commission (the “**Commission**”) with respect to the Company’s Preliminary Proxy Statement on Schedule 14A, filed on August 26, 2013 (the “**Preliminary Proxy Statement**”), as set forth in your letter dated August 30, 2013 addressed to Dominick Colangelo, President, Chief Executive Officer and Director of the Company (the “**Comment Letter**”). The Company is concurrently filing the Company’s Definitive Proxy Statement on Schedule 14A (the “**Definitive Proxy Statement**”), which includes changes to reflect responses to the Staff’s comments.

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below the numbered comment. For your convenience, we have italicized the reproduced Staff comment from the Comment Letter. Unless otherwise indicated, page references in the descriptions of the Staff’s comment refer to the Preliminary Proxy Statement, and page references in the responses refer to the Definitive Proxy Statement. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Definitive Proxy Statement.

The responses provided herein are based upon information provided to Goodwin Procter LLP by the Company. In addition to submitting this letter via EDGAR, we are sending via courier two (2) copies of each of this letter and the Definitive Proxy Statement.

Proposal No. 1 — Proposal to Amend the Articles ....., page 4

1. *Please disclose whether you currently have, or do not have, any plans with respect to the potential increased number of authorized shares available for issuance. If such plans exist, please disclose all material information.*

RESPONSE: In response to the Staff’s comment, the Company has added additional disclosure on page 5 of the Definitive Proxy Statement clarifying that the Company does not have any plans with respect to the potential increased number of authorized shares.

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2

If you should have any questions concerning the enclosed matters, please contact the undersigned at (617) 570-1055.

Sincerely,

/s/ Mitchell S. Bloom

Mitchell S. Bloom, Esq.

Enclosures

cc: Dominick C. Colangelo, President & Chief Executive Officer, *Aastrom Biosciences, Inc.*.  
 Michael Elliston, Controller and Principal Accounting Officer, *Aastrom Biosciences, Inc.*  
 Danielle Lauzon, Esq., *Goodwin Procter LLP*  
 Douglas S. Parker, Esq., *Dykema Gossett PLLC*

