

April 2, 2014

Via EDGAR transmission and Facsimile

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549
Attention: Jeffrey P. Riedler

Re: Aastrom Biosciences, Inc.: Registration Statement on Form S-1 (File No. 333-193861)

Dear Mr. Riedler:

Pursuant to Rule 461 of the Securities Act of 1933, as amended, Aastrom Biosciences, Inc. (the "Registrant") does hereby respectfully request acceleration of the effective time of the above-referenced registration statement on Form S-1, as amended (the "Registration Statement"), so that it may become effective at 4:00 p.m. (Eastern time) on April 3, 2014, or as soon as practicable thereafter.

The Registrant hereby acknowledges the following:

- should the U.S. Securities and Exchange Commission (the "Commission") or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Registrant from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Registrant may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any questions regarding this request, please contact Ryan Sansom of Goodwin Procter LLP at (617) 570-1373.

Sincerely,

Aastrom Biosciences, Inc.

By: /s/ Michael Elliston

Name: Michael Elliston

Title: Chief Accounting Officer and Corporate Secretary

cc: Christina De Rosa, Esq., *U.S. Securities and Exchange Commission*
Dan Greenspan, Esq., *U.S. Securities and Exchange Commission*
Dominick C. Colangelo, *Chief Executive Officer and President of Aastrom Biosciences, Inc.*
Mitchell S. Bloom, Esq., *Goodwin Procter LLP* (by email)
