

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 3
TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

AASTROM BIOSCIENCES, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

MICHIGAN (STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	2834 (PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE NUMBER)	94-3096597 (IRS EMPLOYER IDENTIFICATION NO.)
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24 FRANK LLOYD WRIGHT DRIVE
P.O. BOX 376
ANN ARBOR, MICHIGAN 48106
(313) 930-5555
(ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF
REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

R. DOUGLAS ARMSTRONG, PH.D.
PRESIDENT AND CHIEF EXECUTIVE OFFICER
AASTROM BIOSCIENCES, INC.
24 FRANK LLOYD WRIGHT DRIVE
P.O. BOX 376
ANN ARBOR, MICHIGAN 48106
(313) 930-5555
(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE,
OF AGENT FOR SERVICE)

COPIES TO:

T. KNOX BELL, ESQ. DOUGLAS J. REIN, ESQ. DAVID R. YOUNG, ESQ. GRAY CARY WARE & FREIDENRICH A PROFESSIONAL CORPORATION 4365 EXECUTIVE DRIVE, SUITE 1600 SAN DIEGO, CALIFORNIA 92121 (619) 677-1400	RICHARD R. PLUMRIDGE, ESQ. BROBECK PHLEGER & HARRISON LLP 1633 BROADWAY NEW YORK, NEW YORK 10019 (212) 581-1600
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APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. [X]

If this Form is to be filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of earlier effective registration statement for the same offering. []

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act

registration statement number of the earlier effective registration statement for the same offering. []

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. []

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

EXPLANATORY NOTE

This Amendment No. 3 to this Registration Statement is being filed solely for the purpose of filing additional exhibits to the Registration Statement.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

Other expenses in connection with the registration of the securities hereunder, which will be paid by the Registrant, will be substantially as follows:

ITEM	AMOUNT
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Securities and Exchange Commission registration fee.....	\$ 3,819
NASD filing fee.....	1,760
Nasdaq National Market fee.....	17,500
Blue sky qualification fees and expenses*.....	5,000
Accounting fees and expenses*.....	25,000
Legal fees and expenses*.....	100,000
Printing and engraving expenses*.....	100,000
Transfer agent and registrar fees*.....	5,000
Escrow agent fees*.....	10,000
Miscellaneous expenses*.....	81,921

Total*.....	\$350,000
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* Estimated expenses.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Sections 1561 through 1565 of the Michigan Business Corporation Act (the "MBCA") authorize a corporation to grant or a court to award indemnity to directors, officers, employees and agents in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933, as amended (the "Securities Act").

The Bylaws of the Registrant (see Exhibit 3.2), provide that the Registrant shall, to the fullest extent authorized or permitted by the MBCA, or other applicable law, indemnify a director or officer who was or is a party or is threatened to be made a party to any proceeding by or in the right of the Registrant to procure a judgment in its favor by reason of the fact that such person is or was a director, officer, employee or agent of the Registrant, against expenses, including actual and reasonable attorneys' fees, and amounts paid in settlement incurred in connection with the action or suit, if the indemnitee acted in good faith and in a manner the person reasonably believed to be in, or not opposed to, the best interests of the Registrant or its shareholders. This section also authorizes the Registrant to advance expenses incurred by any agent of the Registrant in defending any proceeding prior to the final disposition of such proceeding upon receipt of an undertaking by or on behalf of the agent to repay such amount unless it shall be determined ultimately that the agent is entitled to be indemnified.

The Bylaws also authorize the Registrant to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Registrant against any liability asserted against or incurred by such person in such capacity or arising out of such person's status as such, regardless of whether the Registrant would have the power to indemnify such person against such liability under the provisions of the MBCA.

The Registrant has entered into an indemnification agreement with certain of its directors, officers and other key personnel, which contains provisions that may in some respects be broader than the specific indemnification provisions contained under applicable law. The indemnification agreement may require the Registrant, among other things, to indemnify such directors, officers and key personnel against certain liabilities that may arise by reason of their status or service as directors, officers or employees of the Registrant, to advance the expenses incurred by such parties as a result of any threatened claims or proceedings brought against them as to which they could be indemnified and, to the maximum extent that insurance coverage of such directors, officers and key employees under the Registrant's directors' and officers' liability insurance policies is maintained.

Section 1209 of the MBCA permits a Michigan corporation to include in its Articles of Incorporation a provision eliminating or limiting a director's liability to a corporation or its shareholders for monetary damages for breaches of fiduciary duty. The enabling statute provides, however, that liability for breaches of the duty of loyalty, acts or omissions not in good faith or involving intentional misconduct or knowing violation of the law, or the receipt of improper personal benefits cannot be eliminated or limited in this manner. The Registrant's Restated Articles of Incorporation include a provision which eliminates, to the fullest extent permitted by the MBCA, director liability for monetary damages for breaches of fiduciary duty.

Section 7 of the Placement Agent Agreement filed as Exhibit 1.1 hereto sets forth certain provisions with respect to the indemnification of certain controlling persons, directors and officers against certain losses and liabilities, including certain liabilities under the Securities Act.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

(a) ISSUANCES OF COMMON STOCK

Since October 1, 1994, the Registrant has sold the following unregistered shares of Common Stock:

In October 1995, the Registrant issued and sold 37,500 shares of Common Stock to Albert B. Deisseroth at a price of \$0.80 per share.

(b) ISSUANCES OF PREFERRED STOCK

Since October 1, 1994, the Registrant has sold the following unregistered shares of preferred stock:

In April and May 1995, the Registrant issued an aggregate of 2,500,001 shares of Series D Preferred Stock to 11 accredited investors at a price of \$4.00 per share.

In December 1995, the Registrant issued 62,500 shares of Series D Preferred Stock to Northwest Ohio Venture Fund, L.P., at a purchase price of \$4.00 per share.

In January 1996, the Registrant issued an aggregate of 1,411,765 shares of Series E Preferred Stock to SBIC Partners, L.P., and the State Treasurer of the State of Michigan ("Michigan") at a purchase price of \$4.25 per share.

Pursuant to a Governance Agreement between the Company and Rhone-Poulenc Rorer, Inc. ("RPR"), dated September 15, 1995, RPR terminated its contractual relationship with the Registrant on September 6, 1996. As a result of such termination, the Registrant issued 205,882 shares of Series E Preferred Stock to RPR at a purchase price of \$17.00 per share.

(c) ISSUANCES OF WARRANTS

Since October 1, 1994, the Registrant has issued the following unregistered warrants:

In October 1996, the Registrant issued warrants to Michigan to purchase 69,444 shares of Common Stock as consideration for entering into the Convertible Loan Commitment.

In October 1997, the Registrant entered into an agreement with Burrill & Company, pursuant to which the Registrant issued warrants to purchase 200,000 shares of Common Stock as consideration for certain services to be rendered by Burrill & Company under such agreement.

(d) OPTION ISSUANCES TO, AND EXERCISES BY, EMPLOYEES, DIRECTORS AND CONSULTANTS

From January 18, 1990 to April 11, 1997, the Registrant issued options to purchase a total of 2,719,231 shares of Common Stock at exercise prices ranging from \$0.15 to \$7.125 per share to 99 employees and consultants and six non-employee directors. From October 30, 1992 to April 11, 1997, the Registrant issued a total of 1,434,534 shares of Common Stock to 31 employees and consultants and one non-employee director upon exercise of stock options at exercise prices ranging from \$0.15 to \$1.20 per share.

There were no underwriters employed in connection with any of the transactions set forth in Item 15.

The issuances described in Items 15(a), 15(b) and 15(c) were exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act as transactions by an issuer not involving a public offering. The issuances described in item 15(d) were exempt from registration under the Securities Act in reliance on Rule 701 promulgated thereunder as transactions pursuant to compensatory benefit plans and contracts relating to compensation. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates or other instruments issued in such transactions.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Exhibits

See Exhibit Index.

(b) Financial Statement Schedules

All such schedules have been omitted because they are not applicable or not required under the instructions contained in Regulation S-X or because the information is included elsewhere in the Financial Statements or the notes thereto.

ITEM 17. UNDERTAKINGS

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) If the Registrant is a foreign private issuer, to file a post-effective amendment to the registration statement to include any financial statements required by Rule 3-19 of Regulation S-X at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Act need not be furnished, provided that the Registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the

Securities Act or Rule 3-19 of Regulation S-X if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Form F-3.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant, pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 4340A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) of (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Ann Arbor, State of Michigan, on the 21st day of November, 1997.

AASTROM BIOSCIENCES, INC.

By: /s/ R. Douglas Armstrong

 R. DOUGLAS ARMSTRONG, PH.D.
 PRESIDENT AND CHIEF EXECUTIVE
 OFFICER
 (PRINCIPAL EXECUTIVE OFFICER)

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURES -----	TITLE -----	DATE -----
/s/ R. Douglas Armstrong ----- R. DOUGLAS ARMSTRONG, PH.D	President, Chief Executive Officer, and Director (Principal Executive Officer)	November 21, 1997
Todd E. Simpson* ----- TODD E. SIMPSON	Vice President, Finance & Administration, Secretary and Treasurer, Chief Financial Officer (Principal Financial and Accounting Officer)	November 21, 1997
Robert J. Kunze* ----- ROBERT J. KUNZE	Chairman of the Board and Director	November 21, 1997
Stephen G. Emerson* ----- STEPHEN G. EMERSON, M.D., PH.D	Director	November 21, 1997
G. Bradford Jones* ----- G. BRADFORD JONES	Director	November 21, 1997
Horst R. Witzel* ----- HORST R. WITZEL, DR. -ING	Director	November 21, 1997
Edward C. Wood, Jr.* ----- EDWARD C. WOOD, JR.	Director	November 21, 1997

*By: /s/ R. Douglas Armstrong

 R. DOUGLAS ARMSTRONG, PH.D.
 ATTORNEY-IN-FACT

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the use in the Prospectus constituting part of this Registration Statement on Form S-1 of our report dated August 15, 1997, relating to the financial statements of Aastrom Biosciences, Inc., which appears in such Prospectus. We also consent to the reference to us under the heading "Experts" in such Prospectus.

PRICE WATERHOUSE LLP

Detroit, Michigan
November 18, 1997

EXHIBIT INDEX

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
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1.1****	Form of Placement Agent Agreement between Cowen & Company and the Company.
3.1*	Restated Articles of Incorporation of the Company.
3.2**	Bylaws, as amended.
3.3	Certificate of Designation of 5 1/2% Convertible Preferred Stock.
4.1**	Specimen Common Stock Certificate.
4.2**	Amended and Restated Investors' Rights Agreement, dated April 7, 1992.
4.3****	Amendment to Amended and Restated Investor's Rights Agreement, dated April 22, 1997.
4.4****	Specimen 5 1/2% Convertible Preferred Stock Certificate.
5.1	Opinion of Pepper, Hamilton & Scheetz.
10.1**	Form of Indemnification Agreement.
10.2**	Amended and Restated 1992 Incentive and Non-Qualified Stock Option Plan and forms of agreements thereunder.
10.3**	1996 Outside Directors Stock Option Plan and forms of agreements thereunder.
10.4**	1996 Employee Stock Purchase Plan and form of agreement thereunder.
10.5**	Stock Purchase Agreement, dated October 22, 1993, between Cobe Laboratories, Inc. and the Company and amendment thereto dated October 29, 1996.
10.6**+	Distribution Agreement, dated October 22, 1993, between Cobe BCT, Inc. and the Company and amendments thereto dated March 29, 1995, September 11, 1995 and October 29, 1996.
10.7**	Lease Agreement, dated May 18, 1992, between Domino's Farms Holdings, L.P. and the Company and amendments thereto dated February 26, 1993, October 3, 1994, November 16, 1994 and July 29, 1996.
10.8**	Promissory Note, dated November 18, 1993, for \$120,000 loan by the Company to R. Douglas Armstrong, Ph.D. and amendment thereto dated October 30, 1996.
10.9**	Promissory Note, dated October 20, 1993, for \$47,303 loan by the Company to Stephen G. Emerson, M.D., Ph.D. and amendment thereto dated October 30, 1996.
10.10**	Clinical Trial Agreement dated August 28, 1996 between the Company and Loyola University Medical Center Cancer Center.
10.11**	Stock Purchase Commitment Agreement, dated October 15, 1996, between the State Treasurer of the State of Michigan and the Company.
10.12**	Convertible Loan Commitment Agreement, dated October 15, 1996, between the State Treasurer of the State of Michigan and the Company.
10.13**	Letter Agreement, dated November 11, 1996, between the Company and Cobe Laboratories, Inc.
10.14**	Termination Agreement, dated November 14, 1996, between the Company and Rhone-Poulenc Rorer Inc.
10.15**	Stock Purchase Agreement, dated November 14, 1996, between the Company and Rhone-Poulenc Rorer Inc.
10.16**	Collaborative Supply Agreement, dated December 16, 1996, between the Company and Anchor Advanced Products, Inc. Mid-State Plastics Division.
10.17**	1989 Stock Option Plan and form of agreement thereunder.
10.18**	Ancillary Stock Option Plan and form of agreement thereunder.
10.19**	401(k) Plan.
10.20**	Form of Employment Agreement.
10.21**	License Agreement, dated July 17, 1992, between J.G. Cremonese and the Company and related addenda thereto dated July 14, 1992 and July 7, 1993.

- 10.22**+ Collaborative Product Development Agreement, dated May 10, 1994, between SeaMED Corporation and the Company.
- 10.23**+ Collaborative Product Development Agreement, dated November 8, 1994, between Ethox Corporation and the Company.
- 10.24**+ License and Supply Agreement, dated April 1, 1996, between Immunex Corporation and the Company.
- 10.25** Clinical Trial Agreement, dated April 19, 1996, between the Company and the University of Texas M.D. Anderson Cancer Center.
- 10.26** License Agreement, dated March 13, 1992, between the Company and the University of Michigan and amendments thereto dated March 13, 1992, October 8, 1993 and June 21, 1995.
- 10.27** Employee Proprietary Information and Invention Agreement, effective June 1, 1991, between the Company and R. Douglas Armstrong, Ph.D.
- 10.28** Employment Agreement, dated June 19, 1992, between the Company and James Maluta.
- 10.29** Employment Agreement, dated December 8, 1995, between the Company and Todd E. Simpson.
- 10.30** Employment Agreement, dated February 10, 1994, between the Company and Walter C. Ogier.
- 10.31** Employment Agreement, dated April 19, 1994, between the Company and Thomas E. Muller, Ph.D.
- 10.32** Employment Agreement, dated October 26, 1995, between the Company and Alan K. Smith, Ph.D.
- 10.33** Consulting Agreement, dated June 1, 1995, between the Company and Stephen G. Emerson, M.D., Ph.D.
- 10.34** Form of Subscription Agreement for the purchase of Series D Preferred Stock (Enterprise Development Fund L.P., Enterprise Development Fund II, L.P. and Northwest Ohio Venture Fund Limited Partnership).
- 10.35** Stock Purchase Agreement, dated January 8, 1996, among the Company, SBIC Partners, L.P. and the State Treasurer of the State of Michigan.
- 10.36** Form of Subscription Agreement for the purchase of Series D Preferred Stock (Brentwood Associates V, L.P., Candice E. Appleton Family Trust, Candis J. Stern, Helmut F. Stern, H&Q Life Science Technology Fund, H&Q London Ventures, State Treasurer of the State of Michigan and Windpoint Partners II, Limited Partnership).
- 10.37** Subscription Agreement, dated December 11, 1995, between the Company and Northwest Ohio Venture Fund Limited Partnership.
- 10.38# Second Amendment to Promissory Note payable to the Company by Stephen G. Emerson, M.D., Ph.D., dated June 30, 1997.
- 10.39# Second Amendment to Promissory Note payable to the Company by R. Douglas Armstrong, Ph.D., dated June 30, 1997.
- 10.40# Amendment to License and Supply Agreement, dated August 25, 1997, between Immunex Corporation and the Company.
- 10.41**** Strategic Planning Consulting Services and Collaboration Agreement, dated October 7, 1997, between Burrill & Company, LLC and the Company.
- 10.42**** Amendment to Stock Purchase Agreement among the Company, SBIC Partners, L.P. and the State Treasurer of the State of Michigan, dated April 23, 1997.
- 10.43 Form of Preferred Stock Purchase Agreement to be entered into among the Company and the purchasers of the 5 1/2% Convertible Preferred Stock of the Company.
- 10.44 Employment Agreement, dated October 24, 1997, between the Company and Bruce W. Husel.
- 11.1# Statement regarding computation of net loss per share.
- 16.1*** Letter from Coopers & Lybrand L.L.P., dated July 15, 1997.
- 23.1 Consent of Price Waterhouse LLP (see page II-6).
- 23.2**** Consent of Pepper, Hamilton & Scheetz (included in Exhibit 5.1).
- 23.3**** Consent of Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

24.1**** Power of Attorney.
27.1# Financial Data Schedule.
27.2% Financial Data Schedule.

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- * Incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 1996, as filed on March 7, 1997.
- ** Incorporated by reference to the Company's Registration Statement on Form S-1 (No. 333-15415), declared effective on February 3, 1997.
- *** Incorporated by reference to the Company's Current Report on Form 8-K, as filed on July 16, 1997.
- **** Previously filed as an exhibit to this Registration Statement.
- # Incorporated by reference to the Company's Annual Report on Form 10-K for the year ended June 30, 1997, as filed on September 25, 1997.
- % Incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 1997, as filed on November 14, 1997.
- + Confidential treatment has been granted as to a portion of this exhibit.

AASTROM BIOSCIENCES, INC.

CERTIFICATE OF DESIGNATION

Pursuant to Section 302 of the
Michigan Business Corporation Act

5 1/2% CONVERTIBLE PREFERRED STOCK

Aastrom Biosciences, Inc., a Michigan corporation (the "Corporation"), hereby certifies that the following resolution has been duly adopted by the Board of Directors of the Corporation:

RESOLVED, that pursuant to the authority expressly granted to and vested in the Board of Directors of the Corporation (the "Board") by the provisions of the Restated Articles of Incorporation of the Corporation (the "Articles of Incorporation"), there hereby is created, out of the 5,000,000 shares of preferred stock of the Corporation authorized in Article III of the Articles of Incorporation (the "Preferred Stock"), a series of the Preferred Stock consisting of 2,400,000 shares, which series shall have the following powers, designations, preferences and relative, participating, optional and other rights, and the following qualifications, limitations and restrictions:

1. Designation and Amount. This series of Preferred Stock shall be

designated the 5 1/2% Convertible Preferred Stock, and the authorized number of shares constituting such series shall be 2,400,000. The 5 1/2% Convertible Preferred Stock shall have no par value.

2. Dividend Rights of 5 1/2% Convertible Preferred Stock. Subject to the

dividend provisions fixed by the Board for any series of Preferred Stock designated by the Board in the future (which series shall not receive any dividends in preference to the 5 1/2% Convertible Preferred Stock but may receive dividends on a pari passu basis with the 5 1/2% Convertible Preferred Stock), the holders of 5 1/2% Convertible Preferred Stock shall be entitled to receive dividends, out of any assets at the time legally available therefor, at the rate equal to five and one-half percent (5.5%) of the price at which the shares of 5 1/2% Convertible Preferred Stock are first sold by the Corporation to the public (the "Issue Price") per annum. The right to dividends on the 5 1/2% Convertible Preferred Stock shall be cumulative and shall accrue commencing on the date of issuance, on a quarterly basis on the last day of March, June, September and December of each year. Accrued but unpaid dividends shall not bear interest. In lieu of the payment of a cash dividend, the Board may elect to pay the dividend in the form of shares of common stock of the Corporation ("Common Stock") with a value equivalent to the cash dividend that would have been paid pursuant to the preceding sentence (such value to be based on the closing sale price of the Common Stock on the last trading day before such dividend is declared or, if the Common Stock is not traded in a public market at such time, on the good faith determination of such value

by the Board). No dividends shall be paid on any Common Stock unless there are no accrued and unpaid dividends on the 5 1/2% Convertible Preferred Stock and at the same time a dividend is paid with respect to all outstanding shares of 5 1/2% Convertible Preferred Stock in an amount for each such share of 5 1/2% Convertible Preferred Stock equal to the aggregate amount of such dividends payable on that number of shares of Common Stock into which each such share of 5 1/2% Convertible Preferred Stock could then be converted. Dividends paid on the shares of 5 1/2% Convertible Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata among all such shares at the time outstanding. The Board may fix a record date for the determination of the holders of outstanding shares of 5 1/2% Convertible Preferred Stock entitled to receive payment of a dividend declared thereon, which record date shall not be more than sixty (60) nor less than ten (10) days prior to the date fixed for the payment thereof. On the date of conversion of any share of 5 1/2% Convertible Preferred Stock into Common Stock as provided in Section 5, all accrued but unpaid dividends shall be due and payable by the Corporation on the day ten (10) days following such date of conversion (the "Dividend Payment Date") and, in the event that the Board elects to pay the dividend in shares of Common Stock in lieu of payment of a cash dividend, the person or persons entitled to receive such shares of Common Stock shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the Dividend Payment Date. Notwithstanding the foregoing, in the event of any automatic conversion of shares of 5 1/2% Convertible Preferred Stock into Common Stock pursuant to Section 5(c), all accrued but unpaid dividends shall be due and payable in shares of Common Stock on the date of such conversion, and the person or persons entitled to receive such shares of Common Stock shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

3. Preference on Liquidation. Subject to the liquidation preferences of

any series of Preferred Stock designated by the Board in the future (which series shall not receive any payment upon any liquidation, dissolution or winding up of the Corporation in preference to the 5 1/2% Convertible Preferred Stock but may be entitled to receive such a payment on a pari passu basis with the 5 1/2% Convertible Preferred Stock), in the event of any liquidation, dissolution or winding up of the Corporation, distributions to holders of 5 1/2% Convertible Preferred Stock and holders of Common Stock shall be made in the following manner:

(a) Amount, Priority, Etc.

(i) The holders of 5 1/2% Convertible Preferred Stock shall be entitled to receive on account of each share of 5 1/2% Convertible Preferred Stock then held by them, prior and in preference to any distribution of any of the assets of the Corporation to the holders of the Common Stock by reason of their ownership of such stock, the sum of: (A) the Issue Price, adjusted for any stock split, stock combination, stock distribution or stock dividend with respect to such shares; plus (B) the amount of any dividends accruing through the date of distribution, whether or not earned or declared. If the assets and funds available for distribution among the holders of 5 1/2% Convertible Preferred Stock and among the holders of any series of Preferred Stock ranking on a parity with the 5 1/2% Convertible Preferred Stock with respect to this subsection (a)(i) of this Section 3 as to the distribution of assets and funds upon such dissolution, liquidation or winding up shall be insufficient to permit the payment to such holders of their full liquidation payments, then the entire assets and funds of the Corporation legally available for such

distribution shall be distributed ratably among such holders in proportion to their aggregate preferential amounts.

(ii) After payment in full to the holders of 5 1/2% Convertible Preferred Stock of all amounts exclusively payable on or with respect to said shares pursuant to subsection (a)(i) of this Section 3, the holders of the Common Stock shall be entitled to receive the entire remaining assets and funds of the Corporation legally available for such distribution, with such amounts to be distributed ratably among such holders in proportion to their respective holdings of shares of Common Stock.

(b) Distributions Other Than Cash. In the event the Corporation

shall propose to take any action of the types described in Section 3(a) which will involve the distribution of assets other than cash, the Board shall make a good faith determination of the value of the assets to be distributed to the holders of shares of 5 1/2% Convertible Preferred Stock. The Corporation shall give prompt written notice to each holder of shares of 5 1/2% Convertible Preferred Stock of such valuation. All notices pursuant to this Section 3 hereof shall be deemed given upon personal delivery or upon deposit in a United States Post Office by registered or certified mail.

4. Voting. Except as otherwise required by law, the shares of 5 1/2%

Convertible Preferred Stock shall be voted together with the Common Stock at any annual or special meeting of the stockholders of the Corporation, or may act by written consent in the same manner as the Common Stock, and shall have the voting rights and powers equal to the voting rights of the Common Stock, upon the following basis: each holder of shares of 5 1/2% Convertible Preferred Stock shall be entitled to such number of votes for the shares of 5 1/2% Convertible Preferred Stock held by him on the record date for such meeting or action to be taken by written consent, as shall be equal to the nearest whole number of shares of Common Stock into which such holder's shares of 5 1/2% Convertible Preferred Stock are convertible immediately after the close of business on the record date for such meeting or action to be taken by written consent, as the case may be.

5. Conversion Rights. The holders of 5 1/2% Convertible Preferred Stock

shall have conversion rights as follows:

(a) Voluntary Conversion. Each share of 5 1/2% Convertible

Preferred Stock shall be convertible, at the option of the holder thereof, at any time at the principal office of the Corporation or any transfer agent for such shares, into fully paid and nonassessable shares of Common Stock. The number of shares of Common Stock into which each share of 5 1/2% Convertible Preferred Stock shall be converted is equal to the Issue Price divided by the Conversion Price. The initial Conversion Price for the 5 1/2% Convertible Preferred Stock shall be equal to the Issue Price, subject to adjustment as provided in Section 5(g).

(b) Mandatory Conversion Upon Stock Value Benchmark. Each share of

5 1/2% Convertible Preferred Stock shall be automatically converted into shares of Common Stock at the then effective Conversion Price in the event that, at any time following the second anniversary of the date upon which the first share of 5 1/2% Convertible Preferred Stock has been issued, the closing bid price of the Common Stock exceeds a price per share of double the Issue Price for twenty (20) consecutive trading days.

(c) Mandatory Conversion Upon Merger. Each share of 5 1/2%

Convertible Preferred Stock shall be automatically converted into shares of Common Stock at the then effective Conversion Price immediately prior to the completion of any merger transaction (i) to which the Corporation is a party, (ii) in which the consideration received by the Corporation or its shareholders equals or exceeds a value of double the Issue Price per share of Common Stock outstanding as of the date upon which a definitive agreement relating to such transaction is executed by the parties thereto (the "Execution Date") (with all shares of capital stock of the Corporation that are convertible into Common Stock considered on an as-converted basis), and (iii) in which either the Corporation is not the surviving entity or in which the holders of the Corporation's voting securities prior to the transaction own less than fifty percent (50%) of the voting securities of the combined entity immediately following the merger. The consideration referred to in the preceding clause (ii) shall be valued as of the Execution Date, and, in the event that such consideration is other than (A) cash, or (B) publicly traded securities of an entity having an aggregate market capitalization of at least \$160,000,000 and average daily trading volume in its securities of at least 50,000 shares over the twenty (20) trading days preceding the Execution Date (in which case such securities shall be valued in accordance with the closing trading price on the last trading day preceding the Execution Date), such consideration shall be valued by an investment banking firm or other reputable firm or institution selected by the holders of a majority of the outstanding shares of 5 1/2% Convertible Preferred Stock and reasonably acceptable to the Company.

(d) Mandatory Conversion Upon Partial Conversion. Each share of

5 1/2% Convertible Preferred Stock shall be automatically converted into shares of Common Stock at the then effective Conversion Price in the event that, at any time following the date of the initial issuance of shares of 5 1/2% Convertible Preferred Stock, less than 500,000 shares of 5 1/2% Convertible Preferred Stock remain outstanding (as adjusted for stock splits, stock dividends, recapitalizations and the like).

(e) Effect of Conversion on Accrued Dividends. Upon any conversion

as described in this Section 5, each holder of the 5 1/2% Convertible Preferred Stock shall remain entitled to receive all accrued and unpaid dividends earned through the date of conversion.

(f) Conversion Procedure. The holder of any shares of 5 1/2%

Convertible Preferred Stock may exercise the conversion right specified in Section 5(a) by surrendering to the Corporation or any transfer agent of the Corporation the certificate or certificates for the shares to be converted, accompanied by written notice specifying the number of shares to be converted. Upon the occurrence of any event specified in Section 5(b), Section 5(c) or Section 5(d), the outstanding shares of 5 1/2% Convertible Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent; provided, however, that

the Corporation shall not be obligated to issue to any holder certificates evidencing the shares of Common Stock issuable upon such conversion unless certificates evidencing such shares of 5 1/2% Convertible Preferred Stock are delivered either to the Corporation or any transfer agent of the Corporation. Conversion shall be deemed to have been effected on the date when delivery of notice of an election to convert and of certificates for shares being converted is made or on the date of the occurrence of any event specified in Section 5(b), Section 5(c) or Section 5(d), as the

case may be, and such date is referred to herein as the "Conversion Date." As promptly as practicable thereafter (and after surrender of the certificate or certificates representing shares of 5 1/2% Convertible Preferred Stock to the Corporation or any transfer agent of the Corporation), the Corporation shall issue and deliver to such holder a certificate or certificates for the number of full shares of Common Stock to which such holder is entitled. No fractional shares of Common Stock shall be issued by the Corporation and all such fractional shares shall be disregarded. In lieu thereof, the Corporation shall pay in cash the fair market value of any such fractional share as determined by the Board. The person in whose name the certificate or certificates for Common Stock are to be issued shall be deemed to have become a holder of record of such Common Stock on the applicable Conversion Date. Upon conversion of only a portion of the number of shares covered by a certificate representing shares of 5 1/2% Convertible Preferred Stock surrendered for conversion (in the case of conversion pursuant to Section 5(a)), the Corporation shall issue and deliver to or upon the written order of the holder of the certificate so surrendered for conversion, at the expense of the Corporation, a new certificate covering the number of shares of 5 1/2% Convertible Preferred Stock representing the unconverted portion of the certificate so surrendered.

(g) Adjustments to Conversion Price. The Conversion Price for the

5 1/2% Convertible Preferred Stock shall be subject to adjustment from time to time as follows:

(i) Adjustment for Stock Splits, Recapitalizations, Etc. In

case the Corporation shall at any time (i) subdivide the outstanding Common Stock, or (ii) issue a stock dividend on its outstanding Common Stock, the Conversion Price in effect immediately prior to such subdivision or the issuance of such stock dividend shall be proportionately decreased. In case the Corporation shall at any time combine its outstanding Common Stock, the Conversion Price in effect immediately prior to such combination shall be proportionately increased. All such adjustments described herein shall be effective at the close of business on the date of such subdivision, stock dividend or combination, as the case may be.

(ii) Adjustment Upon Other Reclassifications. In case of any

reclassification of the Common Stock other than a recapitalization described in Section 5(g)(i), the then effective Conversion Price shall be adjusted so that each share of the 5 1/2% Convertible Preferred Stock shall thereafter be convertible into that number of shares of stock or other securities or property to which a holder of the number of shares of Common Stock issuable upon conversion of a share of 5 1/2% Convertible Preferred Stock immediately prior to such reclassification would have been entitled upon such reclassification. In any such case, appropriate adjustment (as determined by the Board) shall be made in the application of the provisions herein set forth with respect to the rights and interests thereafter of the holders of 5 1/2% Convertible Preferred Stock, such that the provisions set forth herein shall thereafter be applicable, as nearly as reasonably may be, in relation to any share of stock or other property thereafter issuable upon conversion.

(iii) Adjustment Upon Issuance of Equity Securities. Upon the

issuance by the Corporation of Equity Securities (as defined in Section 5(g)(iii)(B)(1) below) at a consideration per share less than the Conversion Price in effect immediately prior to the time of such issue or sale other than an issuance of stock or securities pursuant to Section 5(g)(i) or

Section 5(g)(ii) above or the issuance of shares of Common Stock upon conversion of any shares of 5 1/2% Convertible Preferred Stock, then forthwith upon such issue or sale, such Conversion Price shall be reduced to a price (calculated to the nearest hundredth of a cent) determined by multiplying such Conversion Price by a fraction:

(A) the numerator of which shall be equal to the sum of (x) the number of shares of Common Stock outstanding immediately prior to such issue or sale multiplied by the Conversion Price in effect immediately prior to such adjustment, (y) the number of shares of Common Stock issuable upon conversion or exchange of any obligations or of any securities of the Corporation outstanding immediately prior to such adjustment multiplied by the Conversion Price in effect immediately prior to such adjustment, and (z) an amount equal to the aggregate "consideration actually received" by the Corporation upon such issue or sale; and

(B) the denominator of which shall be equal to the product of the Conversion Price in effect immediately prior to such adjustment multiplied by the sum of (x) the number of shares of Common Stock outstanding immediately after such issue or sale, and (y) the number of shares of Common Stock issuable upon conversion or exchange of any obligations or of any securities of the Corporation outstanding immediately after such issue or sale.

For purposes of this Section 5(g)(iii), the following provisions shall be applicable:

(1) The term "Equity Securities" as used in this Section 5(g)(iii) shall mean any shares of Common Stock, or any obligation, or any share of stock or other security of the Corporation convertible into or exchangeable for Common Stock, except for shares of Common Stock or options to purchase Common Stock issued or granted to officers, directors, employees or consultants of the Corporation and its subsidiaries pursuant to any stock option plan or employee stock purchase plan approved by the Board, securities issued pursuant to an acquisition of another corporation or entity by the Corporation through a merger or otherwise, provided that the shareholders of the Corporation immediately prior to the transaction hold more than fifty percent (50%) of the voting power of the surviving or continuing entity, securities issued pursuant to contractual obligations of the Corporation existing prior to the initial issuance of shares of 5 1/2% Convertible Preferred Stock (as generally described in the Corporation's registration statement on Form S-1 (File No. 333-37439), as filed with the Securities and Exchange Commission on October 8, 1997), or securities issued in any transaction approved by the Board if, in connection with or related to such transaction, the purchaser or recipient of such securities, or an affiliate of such purchaser or recipient, enters into or agrees to enter into (or has previously entered into) a material business relationship with the Corporation, including, but not limited to, a relationship relating to licensing, clinical development, product development, marketing or distribution.

(2) In case of an issue or sale for cash of shares of Common Stock, the "consideration actually received" by the Corporation therefor shall be deemed to be the amount of cash received, before deducting therefrom any commissions or expenses paid by the Corporation.

(3) In case of the issuance (otherwise than upon conversion or exchange of obligations or shares of stock of the Corporation) of additional shares of Common Stock for a consideration other than cash or a consideration partly other than cash, the amount of consideration other than cash received by the Corporation for such shares shall be deemed to be the value of such consideration, as determined in good faith by the Board.

(4) In case of the issuance by the Corporation in any manner of any rights to subscribe for or to purchase shares of Common Stock, or any options for the purchase of shares of Common Stock or stock convertible into Common Stock, all shares of Common Stock or stock convertible into Common Stock to which the holders of such rights or options shall be entitled to subscribe for or purchase pursuant to such rights or options shall be deemed "outstanding" as of the date of the offering of such rights or the granting of such options, as the case may be, and the minimum aggregate consideration named in such rights or options for the shares of Common Stock or stock convertible into Common Stock covered thereby, plus the consideration, if any, received by the Corporation for such rights or options, shall be deemed to be the "consideration actually received" by the Corporation (as of the date of the offering of such rights or the granting of such options, as the case may be) for the issuance of such shares.

(5) In case of the issuance or issuances by the Corporation in any manner of any obligations or of any shares of stock of the Corporation that shall be convertible into or exchangeable for Common Stock, all shares of Common Stock issuable upon the conversion or exchange of such obligations or shares shall be deemed issued as of the date such obligations or shares are issued, and the amount of the "consideration actually received" by the Corporation for such additional shares of Common Stock shall be deemed to be the sum of (x) the amount of consideration received by the Corporation upon the issuance of such obligations or shares, and (y) the minimum aggregate consideration, if any, other than such obligations or shares, receivable by the Corporation upon such conversion or exchange, except in adjustment of dividends.

(6) The amount of the "consideration actually received" by the Corporation upon issuance of any rights or options referred to in subsection (4) above or upon the issuance of any obligations or shares which are convertible or exchangeable as described in subsection (5) above, and the amount of the consideration, if any, other than such obligations or shares so convertible or exchangeable, receivable by the Corporation upon the exercise, conversion or exchange thereof shall be determined in the same manner provided in subsections (2) and (3) above with respect to the consideration received by the Corporation in case of the issuance of additional shares of Common Stock; provided, however, that if such obligations or shares of stock so convertible or ----- exchangeable are issued in payment or satisfaction of any dividend upon any stock of the Corporation other than Common Stock, the amount of the "consideration actually received" by the Corporation upon the original issuance of such obligations or shares of stock so convertible or exchangeable shall be deemed to be the value of such obligations or shares of stock as of the date of the adoption of the resolution declaring such dividend, as determined by the Board at or as of that date. On the expiration of any rights or options referred to in subsection (4), or the termination of any right of conversion or exchange referred to in subsection (5), or any change in the number of shares of Common Stock deliverable upon exercise of such options or rights or upon conversion or exchange of such convertible or

exchangeable securities, the Conversion Price then in effect shall forthwith be readjusted to such Conversion Price as would have obtained had the adjustments made upon the basis of the delivery of only the number of shares of Common Stock actually delivered or to be delivered upon the exercise of such rights or options or upon the conversion or exchange of such securities.

(7) In the event the Corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by the Corporation or other persons or options or rights not referred to in this Section 5(g)(iii), then, in each such case, the holders of the 5 1/2% Convertible Preferred Stock shall be entitled to the distributions provided for in Section 3 above, and no adjustment to the Conversion Price provided for in this Section 5(g)(iii) shall be applicable.

(h) Reservation of Common Stock. The Corporation shall at all times

reserve and keep available, out of its authorized but unissued Common Stock, solely for the purpose of effecting the conversion of 5 1/2% Convertible Preferred Stock, the full number of shares of Common Stock deliverable upon the conversion of all 5 1/2% Convertible Preferred Stock from time to time outstanding. The Corporation shall from time to time (subject to obtaining necessary director and shareholder approval), in accordance with the laws of the State of Michigan, increase the authorized amount of its Common Stock if at any time the authorized number of shares of Common Stock remaining unissued shall not be sufficient to permit the conversion of all of the shares of 5 1/2% Convertible Preferred Stock at the time outstanding.

(i) Cancellation of Shares. Upon any conversion of 5 1/2%

Convertible Preferred Stock pursuant to this Section 5, the shares of 5 1/2% Convertible Preferred Stock which are converted shall not be reissued. Upon conversion of all of the then outstanding 5 1/2% Convertible Preferred Stock pursuant to this Section 5 and upon the taking of any action required by law, all matters set forth in this Certificate of Designation shall be eliminated from the Articles of Incorporation, shares of 5 1/2% Convertible Preferred Stock shall not be deemed outstanding for any purpose whatsoever, and all such shares shall revert to the status of authorized and unissued shares of Preferred Stock.

(j) No Impairment. The Corporation, whether by amendment of its

Articles of Incorporation or through any reorganization, transfer of assets, merger, dissolution, issue or sale of securities or any other voluntary action, will not avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but at all times in good faith will assist in the carrying out of all of such action as may be necessary or appropriate in order to protect the conversion rights pursuant to this Section 5 of the holders of the 5 1/2% Convertible Preferred Stock against impairment.

(k) Certificate as to Adjustments. Upon the occurrence of each

adjustment or readjustment of the Conversion Price pursuant to this Section 5, the Corporation at its expense promptly will compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of shares of 5 1/2% Convertible Preferred Stock, a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation, upon the written request at any time of any holder of 5 1/2% Convertible Preferred Stock, will furnish or cause to be furnished to such

holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of the 5 1/2% Convertible Preferred Stock held by such holder.

(l) Notices of Record Date. In the event of any taking by the

Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, any Equity Securities or any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right, the Corporation will mail to each holder of 5 1/2% Convertible Preferred Stock at least ten (10) days prior to the date specified therein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend, distribution or right.

(m) Notices. Any notices required by the provisions of this Section

5 to be given to the holders of shares of 5 1/2% Convertible Preferred Stock must be in writing and will be deemed given upon personal delivery, one day after deposit with a reputable overnight courier service for overnight delivery or after transmission by facsimile telecopier with confirmation of successful transmission, or five days after deposit in the U.S. mail, by registered or certified mail postage prepaid, or upon actual receipt if given by any other method, addressed to each holder of record at his address appearing on the books of the Corporation.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Designation to be signed by its President, and attested by its Secretary, this 21st day of November, 1997.

AASTROM BIOSCIENCES, INC.

By: /s/ R. Douglas Armstrong

R. Douglas Armstrong, President

Attest:

By: /s/ Todd E. Simpson

Todd E. Simpson, Secretary

[Letterhead of Pepper, Hamilton & Scheetz]

November 21, 1997

Securities and Exchange Commission
Judiciary Plaza
450 Fifth Street, N.W.
Washington, D.C. 20549

Re: Aastrom Biosciences, Inc. Registration
Statement on Form S-1
File No. 333- 37439

Dear Gentlemen:

We have acted as special counsel to Aastrom Biosciences, Inc., a Michigan corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a registration statement filed with the SEC on October 8, 1997, as amended (the "Registration Statement") of the Company on Form S-1 under the Securities Act of 1933, as amended (the "Act"). The Registration Statement relates to the proposed offer and sale by the Company of shares of the Company's 5 1/2% Convertible Preferred Stock (the "Preferred Stock") covered by the Registration Statement.

In this connection, we have examined the Registration Statement, including the exhibits thereto, the originals or copies, certified or otherwise identified to our satisfaction, of the Articles of Incorporation and the By-Laws of the Company amended to date, resolutions of the Company's Board of Directors and such other documents and corporate records relating to the Company, and the issuance and sale of the Shares as we have deemed appropriate. The opinion expressed herein is based exclusively on the applicable provisions of the Michigan Business Corporation Act as in effect on the date hereof.

On the basis of the foregoing, we are of the opinion that the Preferred Stock to be issued and sold by the Company will be, upon effectiveness of the Registration Statement, upon the filing of the Certificate of Designation filed as Exhibit 3.3 to the Registration Statement and upon receipt by the Company of payment therefor, duly authorized, validly issued, fully paid, and non-assessable.

In addition, the Common Stock to be issued upon conversion of the Preferred Stock will be duly authorized, validly issued, fully paid, and non-assessable.

We hereby consent to the reference to our firm under the caption "Legal Matters" in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. Such consent does not constitute a consent under Section 7 of the Act, since we have not certified any part of such Registration Statement and do not otherwise come within the categories of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

PEPPER, HAMILTON & SCHEETZ LLP

By: /s/ Michael B. Staebler

Michael B. Staebler

AASTROM BIOSCIENCES, INC.

5 1/2% CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT

This 5 1/2% Convertible Preferred Stock Purchase Agreement (the "Agreement") is entered into as of November __, 1997, by and among Aastrom Biosciences, Inc., a Michigan corporation (the "Company"), and each of the purchasers whose name and address is set forth on the Schedule of Purchasers attached hereto as Exhibit A (each, a "Purchaser," and, collectively, the "Purchasers").

WHEREAS, the Company has filed a registration statement on Form S-1 (File No. 333-37439) (the "Registration Statement") with the Securities and Exchange Commission (the "Commission"), covering two million four hundred thousand (2,400,000) shares (the "Shares") of the Company's 5 1/2% Convertible Preferred Stock, no par value ("Preferred Stock"), and the shares (the "Conversion Shares") of the Company's common stock, no par value ("Common Stock"), issuable upon conversion of the Shares;

WHEREAS, in connection with the offering contemplated by the Registration Statement, the Company has retained Cowen & Company to act, on a best efforts basis, on behalf of the Company as placement agent;

WHEREAS, on November __, 1997, the Commission declared the Registration Statement effective; and

WHEREAS, prior to or concurrent with the execution of this Agreement, each Purchaser has deposited funds in an amount not less than the aggregate Purchase Price (as defined in Section 1.2) of the Shares to be purchased hereunder by such Purchaser (as set forth on Exhibit A attached hereto) with The Chase Manhattan Bank (the "Escrow Agent") to be held in escrow for the benefit of such Purchaser until the funds are released to the Company upon the Closing (as defined in Section 2.1).

NOW, THEREFORE, the parties hereby agree as follows:

SECTION 1. AUTHORIZATION AND SALE OF SHARES.

1.1 Authorization of Sale of Shares. Upon the terms and subject to the conditions of this Agreement, the Company has authorized the issuance and sale of the Shares following effectiveness of the Registration Statement.

1.2 Sale of Shares. At the Closing (as defined in Section 2.1), the Company will sell and issue to the Purchasers, and each Purchaser will purchase and acquire from the Company, upon the terms and subject to the conditions hereinafter set forth, the number of Shares set forth opposite such Purchaser's name on Exhibit A attached hereto at a purchase price of \$_____ per share (the "Purchase Price").

SECTION 2. CLOSING; DELIVERY.

2.1 Closing Date. The closing (the "Closing") of the purchase and sale of

the Shares hereunder shall take place at the offices of Gray Cary Ware &
Freidenrich, 400 Hamilton Avenue, Palo Alto, California at 9:00 a.m., California
time, on November 26, 1997, or at such other time and place as the Company and
the Placement Agent may agree (the "Closing Date").

2.2 Delivery. At the Closing, the Company will deliver to the Placement

Agent for delivery to the Purchasers certificates evidencing the Shares to be
purchased by the respective Purchasers, as set forth on Exhibit A attached

hereto, and the Escrow Agent, on behalf of the Purchasers, will deliver the
aggregate Purchase Price for the Shares to the Company by wire transfer, as
instructed by the Company.

SECTION 3. REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

The Company represents and warrants to each Purchaser as follows:

3.1 Organization, Good Standing and Qualification. The Company has been

duly incorporated and is validly existing as a corporation in good standing
under the laws of the State of Michigan, with full corporate power and authority
to own, lease and operate its properties and conduct its business as described
in the Registration Statement, and the Company is duly qualified to do business
as a foreign corporation in good standing in each jurisdiction in which the
ownership or leasing of its properties or the conduct of its business requires
such qualification, except where the failure to so qualify would not have a
material adverse effect on the Company.

3.2 Authorization. The Company has full power and authority (corporate

and otherwise) to enter into this Agreement and to perform the transactions
contemplated hereby. This Agreement has been duly authorized, executed and
delivered by the Company and is a valid and binding agreement on the part of the
Company, enforceable against the Company in accordance with its terms, except as
rights may be limited by applicable laws or equitable principles and except as
enforcement hereof may be limited to applicable bankruptcy, insolvency,
reorganization or other similar laws relating to or affecting creditors' rights
generally or by general equitable principles, and the performance of this
Agreement by the Company and the consummation by the Company of the transactions
contemplated hereby, including, without limitation, the issuance and sale of the
Shares, and the issuance of the Conversion Shares upon conversion of the Shares,
will not result in a breach or violation of any of the terms and provisions of,
or constitute a default under, (a) any material lease, contract or other
agreement or instrument to which the Company is a party or by which its
properties are bound, (b) the Restated Articles of Incorporation or Bylaws of
the Company, or (c) to the Company's knowledge, any law, order, rule,
regulation, writ, injunction or decree of any court or governmental agency or
body binding upon the Company. No consent, approval, authorization, order,
designation or filing by or with any court or regulatory, administrative or
other government agency or body is required for the consummation by the Company
of the transactions herein contemplated, except such as may be required under
the Securities Act of 1933, as amended (the "Act"), and state securities laws.

3.3 Capitalization. The authorized capital stock of the Company consists

of 40,000,000 shares of Common Stock and 5,000,000 shares of preferred stock, no par value, 2,400,000 of which are designated as 5 1/2% Convertible Preferred Stock. The rights, preferences, privileges and restrictions of the Preferred Stock are as set forth in the Certificate of Designation attached hereto as Exhibit B (the "Certificate"). The outstanding shares of Common Stock, as set

forth in the Registration Statement, are validly issued, fully paid and non-assessable. As of the date of this Agreement, no shares of the Company's preferred stock are outstanding.

3.4 Valid Issuance. The Shares have been duly authorized for issuance

and, when issued and delivered to the Purchasers by the Company against payment therefor in accordance with the terms of this Agreement, will be duly and validly issued and fully paid and nonassessable. The Conversion Shares have been duly authorized for issuance and, when issued upon conversion of the Shares in accordance with the provisions of the Certificate, will be duly and validly issued and fully paid and nonassessable.

3.5 No Changes. Subsequent to the respective dates as of which

information is given in the Registration Statement, there has not been (a) any material adverse change, or any development which, in the Company's reasonable judgment, is likely to cause a material adverse change, in the business, properties or assets described or referred to in the Registration Statement, or the results of operations, condition (financial or otherwise), business or operations of the Company, (b) any transaction which is material to the Company, except transactions in the ordinary course of business, (c) any obligation, direct or contingent, which is material to the Company, incurred by the Company, except obligations incurred in the ordinary course of business, (d) any material change in the capital stock or outstanding indebtedness of the Company, or (e) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company.

3.6 Nasdaq National Market. The Common Stock is registered pursuant to

Section 12(g) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and is listed on the Nasdaq National Market. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from the Nasdaq National Market, nor has the Company received any notification that the Commission or the National Association of Securities Dealers, Inc. is contemplating any termination of such registration or listing.

3.7 Effective Registration Statement. The Registration Statement has been

declared effective by the Commission, and the Company has not received, and has no notice of, any order of the Commission preventing or suspending the effectiveness of the Registration Statement or any proceedings instituted for that purpose.

3.8 Securities Act Compliance. The Registration Statement, as of its

effective date, and the final prospectus contained therein, as of its date, complied as to form in all material respects with the requirements of the Act and the published rules and regulations of the Commission thereunder. As of its effective date, the Registration Statement did not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading.

SECTION 4. REPRESENTATIONS AND WARRANTIES OF THE PURCHASERS.

Each Purchaser, severally and not jointly, hereby represents and warrants to the Company that this Agreement has been duly authorized, executed and delivered by the Purchaser and constitutes a valid and legally binding obligation of the Purchaser, enforceable in accordance with its terms, except as may be limited by applicable laws or equitable principles and except as enforcement hereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws relating to or affecting creditors' rights generally or by general equitable principles.

SECTION 5. CONDITIONS TO CLOSING OF PURCHASERS.

The Purchasers' obligation to purchase the Shares at the Closing is subject to fulfillment or waiver as of the Closing Date of the following conditions:

5.1 Accuracy of Representations and Warranties. The representations and warranties made by the Company in Section 3 hereof shall be true and correct in all material respects when made, and shall be true and correct in all material respects on the Closing Date with the same force and effect as if they had been made on and as of such date.

5.2 Conditions. All covenants, agreements and conditions contained in this Agreement to be performed by the Company on or prior to the Closing Date shall have been performed or complied with in all material respects.

5.3 Satisfaction of Placement Agent. The conditions contained in Section 9 of the Placement Agreement by and between the Company and the Placement Agent, dated as of the effective date of the Registration Statement, shall have been fulfilled to the reasonable satisfaction of or waived by the Placement Agent.

5.4 Effective Registration Statement. The Registration Statement shall continue to be effective, and no stop order suspending the effectiveness thereof shall have been issued and no proceeding for that purpose shall have been initiated or, to the knowledge of the Company, threatened, by the Commission.

SECTION 6. CONDITIONS TO CLOSING OF COMPANY.

The Company's obligation to sell and issue the Shares at the Closing is subject to the fulfillment or waiver as of the Closing date of the following conditions:

6.1 Accuracy of Representations and Warranties. The representations and warranties made by each Purchaser in Section 4 hereof shall be true and correct when made, and shall be true and correct on the Closing Date with the same force and effect as if they had been made on and as of such date.

6.2 Conditions. All covenants, agreements and conditions contained in the Agreement to be performed by the Purchasers on or prior to the Closing Date shall have been performed or complied with in all material respects.

6.3 Effective Registration Statement. The Registration Statement shall

continue to be effective, and no stop order suspending the effectiveness thereof shall have been issued and no proceeding for that purpose shall have been initiated or, to the knowledge of the Company, threatened, by the Commission.

SECTION 7. REGISTRATION RIGHTS.

7.1 Definitions. As used in this Agreement, the following terms shall

have the following respective meanings:

(a) The terms "register," "registered" and "registration" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act of 1933, as amended (the "Securities Act"), and the declaration or ordering of the effectiveness of such registration statement.

(b) The term "Registrable Securities" means (i) the Conversion Shares, but only in the event that counsel for one or more Purchasers reasonably determines that the Conversion Shares are not freely tradable in the public market and, therefore, registration is necessary to effect a resale of such shares, (ii) any and all shares of Common Stock issued or issuable to the Purchasers in lieu of cash dividends on the Preferred Stock, and (iii) shares of capital stock of the Company issued in respect of the shares referred to in (i) or (ii) as a result of a stock split, stock dividend, recapitalization or the like.

(c) The terms "Holder" or "Holders" means Purchasers or qualifying transferees under subsection 7.8 hereof who hold Registrable Securities.

(d) The term "Initiating Holders" means any Holder or Holders of 25% or more of the aggregate of the Registrable Securities then outstanding.

(e) The term "SEC" means the Securities and Exchange Commission.

(f) The term "Registration Expenses" shall mean all expenses incurred by the Company in complying with Section 7.2 hereof, including, without limitation, all registration, qualification and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company, blue sky fees and expenses, and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company which shall be paid in any event by the Company.)

7.2 Demand Registration.

(a) Request for Registration. In case the Company shall receive from

Initiating Holders a written request that the Company effect any registration, qualification or compliance with respect to at least 25% of the aggregate number of Registrable Securities then outstanding, or any lesser percentage if the anticipated aggregate offering price of such registration, qualification or compliance, net of standard underwriting discounts, would exceed \$5,000,000, the Company will:

(i) promptly give written notice of the proposed registration, qualification or compliance to all other Holders; and

(ii) as soon as practicable, use its best efforts to effect all such registrations, qualifications and compliances (including, without limitation, the execution of an undertaking to file post-effective amendments, appropriate qualifications under the applicable blue sky or other state securities laws and appropriate compliance with exemptive regulations issued under the Securities Act and any other governmental requirements or regulations) as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Initiating Holder's or Initiating Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request given within 30 days after receipt of such written notice from the Company; provided that the Company shall not be obligated to take any action to effect such registration, qualification or compliance pursuant to this Section 7.2:

(A) in any particular jurisdiction in which the Company would be required to execute a general qualification or compliance unless the Company is already subject to service in such jurisdiction and except as required by the Act; or

(B) after the Company has effected two (2) registrations pursuant to this Section 7.2(a) and such registrations have been declared effective; provided, however, that if such registrations included the Conversion Shares (as - - - - - specified in Section 7.1(b)(i)), the Company shall be obligated to effect one (1) additional registration solely with respect to shares of Common Stock issued as dividends on the Preferred Stock (as specified in Section 7.1(b)(ii)).

Subject to the foregoing clauses (A) and (B), the Company shall file a registration statement covering the Registrable Securities so requested to be registered as soon as practical, but in any event within ten (10) days following the filing of the Company's next Annual Report on Form 10-K or Quarterly Report on Form 10-Q after receipt of the request or requests of the Initiating Holders (or, if later, within twenty (20) days after receipt of the request or requests of the Initiating Holders). In the event that the Company shall fail to file a registration statement within such period, the Initiating Holders of such request shall be entitled, in addition to all other rights and remedies otherwise available, to a liquidated damages fee of \$1,000 per day until the registration statement is filed.

(b) Underwriting. If the Initiating Holders intend to distribute the - - - - - Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as part of their request made pursuant to Section 7.2 and the Company shall include such information in the written notice referred to in Section 7.2(a)(i). In such event, the underwriter shall be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. The right of any Holder to registration pursuant to Section 7.2 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders and such Holder) to the extent provided herein. The Company shall (together with all Holders proposing to distribute their securities through such

underwriting) enter into an underwriting agreement in customary form with the underwriter or underwriters. Notwithstanding any other provision of this Section 7.2, if the underwriter advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, the Initiating Holders shall so advise all Holders, and the number of shares of Registrable Securities that may be included in the registration and underwriting shall be allocated among all Holders thereof in proportion, as nearly as practicable, to the respective amounts of Registrable Securities held by such Holders. If any Holder of Registrable Securities disapproves of the terms of the underwriting, such Holder may elect to withdraw therefrom by written notice to the Company, the underwriter and the Initiating Holders. Any Registrable Securities which are excluded from the underwriting by reason of the underwriter's marketing limitation or withdrawn from such underwriting shall be withdrawn from such registration.

(c) Company Shares. If the managing underwriter has not limited the number

of Registrable Securities to be underwritten, the Company may include securities for its own account or for the account of others in such registration if the managing underwriter so agrees and if the number of Registrable Securities which would otherwise have been included in such registration and underwriting will not thereby be limited.

7.3 Expenses of Registration. All Registration Expenses incurred in

connection with any registration, qualification or compliance pursuant to this Section 7 shall be borne by the Company except as follows:

(a) The Company shall not be required to pay for expenses of any registration proceeding begun pursuant to Section 7.2, the request for which has been subsequently withdrawn by the Initiating Holders, in which latter such case, such expenses shall be borne by the Holders requesting such withdrawal.

(b) The Company shall not be required to pay fees or disbursements of legal counsel of a Holder unless all of the Holders specify one special counsel.

(c) The Company shall not be required to pay underwriters' fees, discounts or commissions relating to Registrable Securities.

7.4 Registration Procedures. In the case of each registration,

qualification or compliance effected by the Company pursuant to this Section 7, the Company will keep each Holder participating therein advised in writing as to the initiation of each registration, qualification and compliance and as to the completion thereof. Except as otherwise provided in Section 7.3, at its expense the Company will:

(a) Prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Act with respect to the disposition of all securities covered by such registration statement.

(c) Furnish to the Holders such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Act or the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

7.5 Indemnification.

(a) The Company will indemnify each Holder of Registrable Securities and each of its officers, directors and partners, and each person controlling such Holder, with respect to which such registration, qualification or compliance has been effected pursuant to this Section 7, and each underwriter, if any, and each person who controls any underwriter of the Registrable Securities held by or issuable to such Holder, against all claims, losses, expenses, damages and liabilities (or actions in respect thereto) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any prospectus, offering circular or other document (including any related registration statement, notification or the like) incident to any such registration, qualification or compliance, or based on any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statement therein not misleading, or any violation or alleged violation by the Company of the Act, the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or any state securities law applicable to the Company or any rule or regulation promulgated under the Act, the Exchange Act or any such state law and relating to action or inaction required of the Company in connection with any such registration, qualification of compliance, and will reimburse each such Holder, each of its officers, directors and partners, and each person controlling such Holder, each

such underwriter and each person who controls any such underwriter, within a reasonable amount of time after incurred for any reasonable legal and any other expenses incurred in connection with investigating, defending or settling any such claim, loss, damage, liability or action; provided, however, that the

indemnity agreement contained in this Section 7.5(a) shall not apply to amounts paid in settlement of any such claim, loss, damage, liability, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld); and, provided further, that the Company will not

be liable in any such case to the extent that any such claim, loss, damage or liability arises out of or is based on any untrue statement or omission based upon written information furnished to the Company by an instrument duly executed by such Holder or underwriter specifically for use therein.

(b) Each Holder will, if Registrable Securities held by or issuable to such Holder are included in the securities as to which such registration, qualification or compliance is being effected, indemnify the Company, each of its directors and officers, each underwriter, if any, of the Company's securities covered by such a registration statement, each person who controls the Company within the meaning of the Act, and each other such Holder, each of its officers, directors and partners and each person controlling such Holder, against all claims, losses, expenses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any such registration statement, prospectus, offering circular or other document, or any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Company, such Holders, such directors, officers, partners, persons or underwriters for any reasonable legal or any other expenses incurred in connection with investigating, defending or settling any such claim, loss, damage, liability or action, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in such registration statement, prospectus, offering circular or other document in reliance upon and in conformity with written information furnished to the Company by the Holder in an instrument duly executed by such Holder specifically for use therein; provided, however, that the indemnity

agreement contained in this Section 7.5(b) shall not apply to amounts paid in settlement of any such claim, loss, damage, liability or action if such settlement is effected without the consent of the Holder (which consent shall not be unreasonably withheld); and, provided further, that the total amount for

which any Holder shall be liable under this Section 7.5(b) shall not in any event exceed the aggregate proceeds received by such Holder from the sale of Registrable Securities held by such Holder in such registration.

(c) Each party entitled to indemnification under this Section 7.5 (the "Indemnified Party") shall give notice to the party required to provide indemnification (the "Indemnifying Party") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom; provided, however, that counsel for the

Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be approved by the Indemnified Party (whose approval shall not be unreasonably withheld), and the Indemnified Party may participate in such defense at such party's expense; and, provided further, that the failure of any

Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations hereunder, unless such failure resulted in prejudice to the

Indemnifying Party; and, provided further, that an Indemnified Party (together

with all other Indemnified Parties which may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the Indemnifying Party, if representation of such Indemnified Party by the counsel retained by the Indemnifying Party would be inappropriate due to actual or potential differing interests between such Indemnified Party and any other party represented by such counsel in such proceeding. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation.

7.6 Information by Holder. Any Holder or Holders of Registrable Securities

included in any registration shall promptly furnish to the Company such information regarding such Holder or Holders and the distribution proposed by such Holder or Holders as the Company may request in writing and as shall be required in connection with any registration, qualification or compliance referred to herein.

7.7 Rule 144 Reporting. With a view to making available to Holders the

benefits of certain rules and regulations of the SEC which may permit the sale of the Registrable Securities to the public without registration, the Company agrees at all times to:

(a) make and keep public information available, as those terms are understood and defined in SEC Rule 144;

(b) file with the SEC in a timely manner all reports and other documents required of the Company under the Act and the Exchange Act;

(c) so long as a Holder owns any Registrable Securities, to furnish to such Holder forthwith upon request a written statement by the Company as to its compliance with the reporting requirements of said Rule 144, and of the Act and the Exchange Act, a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed by the Company as the Holder may reasonably request in complying with any rule or regulation of the SEC allowing the Holder to sell any such securities without registration.

7.8 Transfer of Registration Rights. Holders' rights to cause the

Company to register their securities and keep information available, granted to them by the Company under Sections 7.2 and 7.7, may be assigned to a transferee or assignee of at least 100,000 Shares (as adjusted for stock splits, stock dividends, recapitalization and the like) not sold to the public; provided,

however, that the Company is given written notice by such Holder at the time of

or within a reasonable time after said transfer, stating the name and address of said transferee or assignee and identifying the securities with respect to which such registration rights are being assigned. The Company may prohibit the transfer of any Holders' rights under this Section 7.8 to any proposed transferee or assignee whom the Company reasonably believes is a competitor of the Company.

7.9 Termination of Registration Rights. The rights of the Holder provided

for in this Section 7 shall terminate when such Holder may sell all of its Registrable Securities in a three (3) month period under Rule 144 of the Act.

SECTION 8. RIGHT OF FIRST REFUSAL.

8.1 Right to Purchase Pro Rata Share. Upon the terms and subject to the

conditions of this Section 8, the Company hereby grants to each Purchaser who purchases at least 500,000 shares of Preferred Stock pursuant to this Agreement (as set forth on Exhibit A attached hereto) (a "Qualifying Purchaser"), for so

long as the Qualifying Purchaser holds at least 500,000 shares of Preferred Stock (as adjusted for stock splits, stock dividends, recapitalizations and the like), the right of first refusal to purchase, on a pro rata basis, New Securities (as defined in Section 8.2 below) that the Company may, from time to time, propose to sell and issue. Each Qualifying Purchaser's pro rata share, for purposes of this Section 8, shall equal the ratio of (a) the number of shares of Common Stock held by the Qualifying Purchaser (with securities convertible into shares of Common Stock considered on an as-converted basis) held by the Qualifying Purchaser, to (b) the sum of (i) the number of outstanding shares of Common Stock, and (ii) the number of shares of Common Stock issuable upon conversion, exercise or exchange of any outstanding obligations or securities of the Company.

8.2 New Securities. The term "New Securities," as used in this Section 8,

shall mean any shares of the Company's capital stock, or any obligation or other security of the Company convertible into or exchangeable for shares of the Company's capital stock offered by the Company for the purpose of financing its business, except for (a) shares of Common Stock or options to purchase Common Stock issued or granted to officers, directors, employees or consultants of the Company and its subsidiaries pursuant to any stock option plan or employee stock purchase plan approved by the Board, (b) securities issued pursuant to an acquisition of another corporation or entity by the Company through a merger or otherwise, provided that the shareholders of the Company immediately prior to the transaction hold more than fifty percent (50%) of the voting power of the surviving or continuing entity, (c) securities issued pursuant to contractual obligations of the Company existing prior to the initial issuance of shares of 5 1/2% Convertible Preferred Stock (as generally described in the Company's registration statement on Form S-1 (File No. 333-37439), as filed with the Securities and Exchange Commission on October 8, 1997), (d) securities issued in an underwritten public offering registered under the Act, (e) securities issued in any transaction approved by the Board if, in connection with or related to such transaction, the purchase or recipient of such securities, or an affiliate of such purchaser or recipient, enters into or agrees to enter into (or has previously entered into) a material business relationship with the Company, including, but not limited to, a relationship relating to licensing, clinical development, product development, marketing or distribution, and (f) securities issued in connection with any stock split, stock dividend, recapitalization or similar transaction.

8.3 Proposed Issuance. In the event that the Company proposes to

undertake an issuance of New Securities, it shall give each Qualifying Purchaser written notice of its intention, describing the type of New Securities, the proposed price, and the general terms upon which the Company proposes to issue the same. Each Qualifying Purchaser shall have ten (10) business days from the date of receipt of any such notice to agree to purchase its pro rata share of such

New Securities for the price and upon the general terms specified in the notice by giving written notice to the Company and stating therein the quantity of New Securities to be purchased. In the event that a Qualifying Purchaser fails to exercise in full the right of first refusal within said ten (10) day period, the Company shall have ninety (90) days thereafter to sell the New Securities with respect to which the rights of the Qualifying Purchasers set forth in this Section 8 were not exercised, at a price and upon general terms no more favorable to the purchasers thereof than specified in the Company's notice. In the event the Company has not sold the New Securities within such ninety (90) day period, the Company shall not thereafter issue or sell any New Securities without first offering such securities to the Qualifying Purchasers in the manner provided above.

SECTION 9. MISCELLANEOUS.

9.1 Waiver and Amendments. The terms of this Agreement may be waived or

amended only upon the written consent of the Company and the Purchasers holding a majority of the Shares purchased pursuant hereto then held by the Purchasers. The failure by any party at any time to enforce or to require the performance of any provision of this Agreement shall in no way be construed to be a waiver of any such provision and shall not affect the rights of such party hereunder thereafter to enforce or require the performance of such provision in accordance with the terms of this Agreement.

9.2 Governing Law. This Agreement shall be governed in all respects by

the laws of the State of Michigan, without regard to the conflict of laws rules thereof.

9.3 Successors and Assigns. This Agreement may not be assigned by a

Purchaser without the written consent of the Company.

9.4 Entire Agreement. This Agreement constitutes the full and entire

understanding and agreement between the parties with respect to the subject matter hereof.

9.5 Notices. Any notice or other communication required or permitted

under this Agreement shall be in writing and shall be deemed sufficient upon delivery, when delivered personally or by overnight courier or sent by telegram or facsimile, or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, addressed to the party to be notified at such party's address as set forth below or on Exhibit A attached

hereto, or as subsequently modified by written notice, and, if to the Company, with a copy to Gray Cary Ware & Freidenrich, 4365 Executive Drive, Suite 1600, San Diego, California 92121, Attn.: T. Knox Bell, Esq. (Facsimile: 619/677-1477).

9.6 Titles and Subtitles. The titles of the paragraphs and subparagraphs

of this Agreement are for convenience of reference only and are not to be considered in construing or interpreting this Agreement.

9.7 Counterparts. This Agreement may be executed in any number of

counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument.

9.8 Further Assurances. Each party to this Agreement shall do and

perform or cause to be done and performed all such further acts and things and shall execute and deliver all such other agreements, certificates, instruments and documents as the other party hereto may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

9.9 Expenses. The Company and each Purchaser shall bear its own expenses

incurred on its behalf with respect to this Agreement and the transactions contemplated hereby, including, without limitation, fees and expenses of legal counsel.

9.10 Survivability. The respective representations and covenants of the

parties hereto shall survive the Closing of the transactions contemplated hereby for a period of one (1) year following the Closing.

9.11 Severability. If one or more provisions of this Agreement are held

to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (a) such provision shall be excluded from this Agreement, (b) the balance of this Agreement shall be interpreted as if such provision were so excluded, and (c) the balance of this Agreement shall be enforceable in accordance with its terms.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first set forth above.

THE COMPANY:

AASTROM BIOSCIENCES, INC.,
a Michigan corporation

By:

R. Douglas Armstrong, Ph.D.
President and Chief Executive
Officer

Address:

24 Frank Lloyd Wright Drive
Lobby L
Ann Arbor, Michigan 48106

Facsimile: (313) 665-0485

COUNTERPART SIGNATURE PAGE TO
AASTROM BIOSCIENCES, INC.
5 1/2% CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT

PURCHASER:

Name of Purchaser

By: -----

Print Name of Signatory

Title of Signatory

Address:

Facsimile:

EXHIBIT A

Schedule of Purchasers

Name of Purchaser

Address, Telephone Number and
Facsimile Number

Number of Shares

EXHIBIT B

Certificate of Designation of 5 1/2% Convertible Preferred Stock

EMPLOYMENT AGREEMENT

This Employment Agreement (the "Agreement") is entered into as of October 24, 1997 by and between AASTROM BIOSCIENCES, INC., a Michigan corporation ("Employer") and BRUCE HUSEL ("Employee").

NOW, THEREFORE, the parties agree as follows:

1. EMPLOYMENT Employer hereby engages Employee, and Employee hereby accepts such engagement, upon the terms and conditions set forth herein.

2. DUTIES Employee is engaged as Vice President, Quality Systems. Employee shall perform faithfully and diligently the duties customarily performed by persons in the position for which employee is engaged, together with such other reasonable and appropriate duties as Employer shall designate from time to time. Employee shall devote Employee's full business time and efforts to the rendition of such services and to the performance of such duties. As a full-time employee of Employer, Employee shall not be entitled to provide consulting services or other business or scientific services to any other party, without the prior written consent of Employer.

3. COMPENSATION

3.1 BASE SALARY During the term of this Agreement, as compensation for the proper and satisfactory performance of all duties to be performed by Employee hereunder, Employer shall pay Employee at an annual salary rate of One Hundred Ten Thousand Dollars (\$110,000 per year), payable in semi-monthly installments, less required deductions for state and federal withholding tax, Social Security and all other employee taxes and payroll deductions. The base salary shall be subject to review and adjustment on an annual basis.

4. TERM

4.1 COMMENCEMENT The employment relationship pursuant to this Agreement shall commence November 10, 1997.

4.2 TERMINATION AT WILL Although Employer and Employee anticipate a long and mutually rewarding employment relationship, either party may terminate this Agreement, without cause, upon fourteen (14) days' prior written notice delivered to the other. It is expressly understood and agreed that the

employment relationship is "at will", and with no agreement for employment for any specified term, and with no agreement for employment for so long as Employee performs satisfactorily. Provided, however, before Employer exercises this right of termination at will, Employer shall first either (i) discuss with Employee the needs of Employer and why Employee no longer meets those needs, or (ii) discuss with Employee any concerns or dissatisfactions which Employer has with Employee's performance, and give to Employee a reasonable opportunity to remedy those concerns or dissatisfactions, to the reasonable satisfaction of Employer.

4.3 TERMINATION FOR CAUSE Either party may terminate this employment relationship immediately upon notice to the other party in the event of any good cause, such as a default, dishonesty, neglect of duties, failure to perform by the other party, or death or disability of Employee.

4.4 PAYMENT OF COMPENSATION UPON TERMINATION Upon termination for cause, Employee shall be entitled to the compensation set forth as "base salary" herein, prorated to the effective date of such termination as full compensation for any and all claims of Employee under this Agreement.

5. FRINGE BENEFITS

5.1 CUSTOMARY FRINGE BENEFITS Employee shall be entitled to such fringe benefits as Employer customarily makes available to employees of Employer engaged in the same or similar position as Employee ("Fringe Benefits"). Such Fringe Benefits may include vacation leave, sick leave, and health insurance coverage. Employer reserves the right to change the Fringe Benefits on a prospective basis, at any time, effective upon delivery of written notice to Employee.

5.2 ACCUMULATION Employee shall not earn and accumulate unused vacation in excess of Fifteen (15) days. Employee shall not earn and accumulate sick leave or other Fringe Benefits in excess of an unused amount equal to twice the amount earned for one year. Further, Employee shall not be entitled to receive payments in lieu of said Fringe Benefits, other than for unused vacation leave earned and accumulated at the time the employment relationship terminates.

6. INVENTION, TRADE SECRETS AND CONFIDENTIALITY

6.1 DEFINITIONS

6.1.1 Invention Defined. As used herein "Invention" means

inventions, discoveries, concepts, and ideas, whether patentable or copyrightable or not, including but not limited to processes, methods, formulas, techniques, materials, devices, designs, programs (including computer programs), computer graphics, apparatus, products, as well as improvements thereof or know-how

related thereto, relating to any present or anticipated business or activities of Employer.

6.1.2 Trade Secret Defined. As used herein "Trade Secret"

means, without limitation, any document or information relating to Employer's products, processes or services, including documents and information relating to Inventions, and to the research, development, engineering or manufacture of Inventions, and to Employer's purchasing, customer or supplier lists, which documents or information have been disclosed to Employee or known to Employee as a consequence of or through Employee's employment by Employer (including documents, information or Inventions conceived, originated, discovered or developed by Employee), which is not generally known in the relevant trade or industry.

6.2 INVENTIONS

6.2.1 Disclosure. Employee shall disclose promptly to

Employer each Invention, whether or not reduced to practice, which is conceived or learned by Employee (either alone or jointly with others) during the term of his employment with Employer. Employee shall disclose in confidence to Employer all patent applications filed by or on behalf of Employee during the term of his employment and for a period of three (3) years thereafter. Any disclosure of an Invention, or any patent application, made within one (1) year after termination of employment shall be presumed to relate to an Invention made during Employee's term of Employment with Employer, unless Employee clearly proves otherwise.

6.2.2 Employer Property; Assignment. Employee acknowledges

and agrees that all Inventions which are discovered, conceived, developed, made, produced or prepared by Employee (alone or in conjunction with others) during the duration of Employee's employment with Employer shall be the sole property of Employer. Said property rights of Employer include without limitation all domestic and foreign patent rights, rights of registration or other protection under the patent and copyright laws, and all other rights pertaining to the Inventions. Employee further agrees that all services, products and Inventions that directly or indirectly result from engagement with Company shall be deemed "works for hire" as that term is defined in Title 17 of the United States Codes, and accordingly all rights associated therewith shall vest in the Company. Notwithstanding the foregoing, Employee hereby assigns to Employer all of Employee's right, title and interest in any such services, products and Inventions, in the event any such services, products and Inventions shall be determined not to constitute "works for hire."

6.2.3 Exclusion Notice. The Assignment by Employee of

Inventions under this Agreement does not apply to any Inventions which are owned or controlled by Employee prior to the commencement of employment of Employee

by Employer (all of which are set forth on Exhibit "A" hereto). Additionally, Employee is not required to assign an idea or invention where the invention or idea meets all of the following criteria; namely if the invention or idea: (i)

was created or conceived without the use of any of Employer's equipment, supplies, facilities, or trade secret information, and (ii) was developed entirely on Employee's own time, and (iii) does not relate to the business of Employer, and (iv) does not relate to Employer's actual or demonstrably anticipated research or development, and (v) does not result from any work performed by Employee for Employer.

6.2.4 Patents and Copyrights; Attorney-in Fact. Both before

and after termination of this Agreement (and with reasonable compensation paid by Employer to Employee after termination), Employee agrees to assist the Employer to apply for, obtain and enforce patents on, and to apply for, obtain and enforce copyright protection and registration of, the Inventions described in Section 6.2.2 in any and all countries. To that end, Employee shall (at Employer's request) without limitation, testify in any proceeding, and execute any documents and assignments determined to be necessary or convenient for use in applying for, obtaining, registering and enforcing patent or copyright protection involving any of the Inventions. Employee hereby irrevocably appoints Employer, and its duly authorized officers and agents, as Employee's agent and attorney-in-fact, to act for and in behalf of Employee in filing all patent applications, applications for copyright protection and registration, amendments, renewals, and all other appropriate documents in any way related to the Inventions described in Section 6.2.2.

6.3 TRADE SECRETS

6.3.1 Acknowledgment of Proprietary Interest. Employee

recognizes the proprietary interest of Employer in any Trade Secrets of Employer. Employee acknowledges and agrees that any and all Trade Secrets of Employer, whether developed by Employee alone or in conjunction with others or otherwise, shall be and are the property of Employer.

6.3.2 Covenant Not to Divulge Trade Secrets. Employee

acknowledges and agrees that Employer is entitled to prevent the disclosure of Trade Secrets of Employer. As a portion of the consideration for the employment of Employee and for the compensation being paid to Employee by Employer, Employee agrees at all times during the term of the employment by Employer and thereafter to hold in strictest confidence, and not to use, disclose or allow to be disclosed to any person, firm, or corporation, Trade Secrets of Employer, including Trade Secrets developed by Employee, other than disclosures to persons engaged by Employer to further the business of Employer, and other than use in the pursuit of the business of Employer.

6.3.3 Confidential Information of Others. Employee

represents and warrants that if Employee has any confidential information belonging to others,

Employee will not use or disclose to Employer any such information or documents. Employee represents that his employment with Employer will not require him to violate any obligation to or confidence with any other party.

6.4 NO ADVERSE USE Employee will not at any time use Employer's Trade Secrets or Inventions in any manner which may directly or indirectly have an adverse effect upon Employer's business, nor will Employee perform any acts which would tend to reduce Employer's proprietary value in Employer's Trade Secrets or Inventions.

6.5 RETURN OF MATERIALS AT TERMINATION In the event of any termination of Employee's employment, Employee will promptly deliver to Employer all materials, property, documents, data, and other information belonging to Employer or pertaining to Trade Secrets or Inventions. Employee shall not take any materials, property, documents or other information, or any reproduction or excerpt thereof, belonging to Employer or containing or pertaining to any Trade Secrets or Inventions.

6.6 REMEDIES UPON BREACH In the event of any breach by Employee of the provision in this Section 6, Employer shall be entitled, if it so elects, to institute and prosecute proceedings in any court of competent jurisdiction, either in law or in equity, to enjoin Employee from violating any of the terms of this Section 6, to enforce the specific performance by Employee of any of the terms of this Section 6, and to obtain damages for any of them, but nothing herein contained shall be construed to prevent such remedy or combination of remedies as Employer may elect to invoke. The failure of Employer to promptly institute legal action upon any breach of this Section 6 shall not constitute a waiver of that or any other breach hereof.

7. COVENANT NOT TO COMPETE Employee agrees that, during Employee's employment, Employee will not directly or indirectly compete with Employer in any way, and that Employee will not act as an officer, director, employee, consultant, shareholder, lender or agent of any other entity which is engaged in any business of the same nature as, or in competition with, the business in which Employer is now engaged, or in which Employer becomes engaged during the term of Employee's employment, or which is involved in science or technology which is similar to Employer's science or technology.

8. GENERAL PROVISIONS

8.1 ATTORNEYS' FEES In the event of any dispute or breach arising with respect to this Agreement, the party prevailing in any negotiations or proceedings for the resolution or enforcement thereof shall be entitled to recover from the losing party reasonable expenses, attorneys' fees and costs incurred therein.

8.2 AMENDMENTS No amendment or modification of the terms or conditions of this Agreement shall be valid unless in writing and signed by both parties hereto. There shall be no implied-in-fact contracts modifying the terms of this Agreement.

8.3 ENTIRE AGREEMENT This Agreement constitutes the entire agreement between the parties with respect to the employment of Employee. This Agreement supersedes all prior agreements, understandings, negotiations and representation with respect to the employment relationship.

8.4 SUCCESSORS AND ASSIGNS The Rights and obligations of Employer under this Agreement shall inure to the benefit of and shall be binding upon the successors and assigns of Employer. Employee shall not be entitled to assign any of Employee's rights or obligations under this Agreement.

8.5 WAIVER Either party's failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision, or prevent that party thereafter from enforcing each and every other provision of this Agreement.

8.6 SEVERABLE PROVISIONS The provisions of this Agreement are severable, and if any or more provisions may be determined to be judicially unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.

9. EMPLOYEE'S REPRESENTATIONS Employee represents and warrants that Employee (i) is free to enter into this Agreement and to perform each of the terms and covenants contained herein, (ii) is not restricted or prohibited, contractually or otherwise, from entering into and performing this Agreement, and (iii) will not be in violation or breach of any other agreement by reason of Employee's execution and performance of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date set forth above.

EMPLOYER:

Aastrom Biosciences, Inc.

By: /s/ R. Douglas Armstrong

R. Douglas Armstrong, Ph.D.
President and Chief Executive Officer

EMPLOYEE:

/s/ Bruce W. Husel

Bruce Husel

Address: 8227 Drexel Ct.

Eden Prairie, MN
