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

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**FORM 8-K**

CURRENT REPORT  
PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934

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Date of Report (Date of Earliest Event Reported): December 10, 2010

**Aastrom Biosciences, Inc.**

(Exact name of registrant as specified in its charter)

Michigan

(State or other jurisdiction  
of incorporation)

000-22025

(Commission  
File Number)

94-3096597

(I.R.S. Employer  
Identification No.)

24 Frank Lloyd Wright Drive, P.O. Box  
376, Ann Arbor, Michigan

(Address of principal executive offices)

48106

(Zip Code)

Registrant's telephone number, including area code: (734) 930-5555

Not Applicable

Former name or former address, if changed since last report

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 1.01. Entry into a Material Definitive Agreement.**

On December 10, 2010, Aastrom Biosciences, Inc. (the “Company”) entered into an Underwriting Agreement (the “Underwriting Agreement”) with Stifel, Nicolaus & Company, Incorporated, as representative of the underwriters identified therein (collectively, the “Underwriters”), pursuant to which the Company agreed to offer and sell up to 10,000,000 shares of its common stock, no par value, and warrants to purchase up to 10,000,000 shares of its common stock. The common stock and warrants will be sold in units, with each unit consisting of one share of common stock and one warrant. Each warrant (a “Warrant”) will be exercisable to purchase one share of common stock at an initial exercise price of \$3.22 per share of common stock at any time on or after the date of issuance and will expire five years from the date of issuance. Each unit will be sold to investors in this offering at a negotiated price of \$2.25 per unit (the “Offering”). Units will not be issued or certificated. The shares of common stock and Warrants will be issued separately but can only be purchased together in this Offering. The Company expects to receive approximately \$22,500,000 million in gross proceeds from the Offering before underwriting discounts and commissions and Offering expenses.

The Underwriting Agreement contains representations, warranties and covenants of the Company that are customary for transactions of this type and customary conditions to closing. Additionally, the Company has agreed to provide the Underwriters with customary indemnification rights under the Underwriting Agreement. The shares are expected to be delivered to the Underwriters on or about December 15, 2010, subject to the satisfaction of customary closing conditions.

The common stock and warrants were registered for offer and sale on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended (the “Securities Act”), by the Company’s Registration Statement on Form S-3, as amended (Registration No. 333-170581), which was declared effective by the Securities and Exchange Commission (the “SEC”) on November 29, 2010. In connection with this Offering, the Company filed with the SEC a preliminary prospectus supplement on December 9, 2010 pursuant to Rule 424(b) under the Securities Act.

A copy of the Underwriting Agreement and the form of Warrant Agreement to be executed in connection with the Offering are filed herewith as Exhibits 1.1 and 4.1, respectively, and are incorporated herein by reference. The foregoing description of the Underwriting Agreement and the Warrant Agreement by the Company and the documentation related thereto does not purport to be complete and is qualified in its entirety by reference to such Exhibits.

The opinions of the Company’s counsel regarding the validity of the shares, Warrants and shares issuable upon exercise of the Warrants issued pursuant to the Offering are also filed herewith as Exhibits 5.1 and 5.2.

**Item 7.01. Regulation FD Disclosure.**

On December 10, 2010, the Company issued a press release entitled “Aastrom Biosciences, Inc. Prices \$22.5 Million Public Offering.” A copy of the press release is attached as Exhibit 99.1 and incorporated herein by reference.

In accordance with General Instruction B.2 of Form 8-K, the information in Item 7.01 of this report, including Exhibit 99.1 attached hereto, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), nor shall such information be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

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### **Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
1.1	Underwriting Agreement between the Company and Stifel, Nicolaus & Company, Incorporated, as representative of the Underwriters, dated as of December 10, 2010.
4.1	Form of Warrant Agreement.
5.1	Opinion of Dykema Gossett PLLC.
5.2	Opinion of Goodwin Procter LLP.
23.1	Consent of Dykema Gossett PLLC (contained in its opinion filed as Exhibit 5.1).
23.2	Consent of Goodwin Procter LLP (contained in its opinion filed as Exhibit 5.2).
99.1	Press release of Aastrom Biosciences, Inc., dated December 10, 2010.

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Aastrom Biosciences, Inc.

Date: December 10, 2010

By: /s/ Timothy Mayleben

Name: Timothy Mayleben

Title: Chief Executive Officer and President

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**Index to Exhibits**

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**Aastrom Biosciences, Inc.**  
**10,000,000 Shares**  
**Warrants to Purchase 10,000,000 Shares**  
**Common Stock**  
**(no par value)**

**UNDERWRITING AGREEMENT**

December 10, 2010

Stifel, Nicolaus & Company, Incorporated  
As Representative of the several Underwriters  
One Montgomery Street  
Suite 3700  
San Francisco, California 94104

Ladies and Gentlemen:

Aastrom Biosciences, Inc., a Michigan corporation (the “**Company**”), proposes, subject to the terms and conditions stated herein, to issue and sell to the several underwriters named in **Schedule I** hereto (collectively, the “**Underwriters**”), for whom Stifel, Nicolaus & Company, Incorporated is acting as representative (the “**Representative**”), an aggregate of 10,000,000 units (the “**Units**”), with each Unit consisting of (i) one share of common stock, no par value per share, of the Company (the “**Common Stock**”), and (ii) one warrant in the form attached hereto as **Exhibit D**. Each whole warrant (a “**Warrant**”) will entitle the holder to purchase one share of Common Stock (a “**Warrant Share**”).

1. The Company represents and warrants to, and agrees with, each of the Underwriters that:

(a) The Company has prepared and filed with the Securities and Exchange Commission (the “**Commission**”) a registration statement on Form S-3 (File No. 333-170581), and such amendments to such registration statement as may have been required to the date of this Agreement, under the Securities Act of 1933, as amended (the “**Securities Act**”), and the rules and regulations (the “**Rules and Regulations**”) of the Commission thereunder. Such registration statement, at any given time, including any amendments thereto to such time, the exhibits and any schedules thereto at such time, the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act at such time and the documents and information otherwise deemed to be a part thereof or included therein by Rule 430B under the Securities Act (the “**Rule 430B Information**”) or otherwise pursuant to the Rules and Regulations at such time, is herein called the “**Registration Statement**.” The Registration Statement at the time it originally became effective is herein called the “**Initial Registration Statement**.” Any registration statement filed by the Company pursuant to Rule 462(b) under the Securities Act is called the “**Rule 462(b) Registration Statement**,” and, from and after the date and time of filing of the Rule 462(b) Registration Statement, the term “**Registration Statement**” shall include any Rule 462(b) Registration Statement.

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The prospectus in the form in which it appeared in the Initial Registration Statement is herein called the “**Base Prospectus.**” Each preliminary prospectus supplement to the Base Prospectus (including the Base Prospectus as so supplemented) that described the Shares and Warrants and the offering thereof, that omitted the Rule 430B Information and that was used prior to the filing of the final prospectus supplement referred to in the following sentence is herein called a “**Preliminary Prospectus.**” Promptly after the execution and delivery of this Agreement, the Company will prepare and file with the Commission a final prospectus supplement to the Base Prospectus relating to the Shares and Warrants and the offering thereof in accordance with the provisions of Rule 430B and Rule 424(b) of the Rules and Regulations. Such final supplemental form of prospectus (including the Base Prospectus as so supplemented), in the form filed with the Commission pursuant to Rule 424(b) under the Securities Act is herein called the “**Prospectus.**” Any reference herein to the Base Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act as of the date of such prospectus.

For purposes of this Agreement, all references to the Registration Statement, any Rule 462(b) Registration Statement, the Base Prospectus, any Preliminary Prospectus, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System (“**EDGAR**”). All references in this Agreement to financial statements and schedules and other information that is “described,” “contained,” “included” or “stated” in the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information that is incorporated by reference in or otherwise deemed by the Rules and Regulations to be a part of or included in the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus, as the case may be; and all references in this Agreement to amendments or supplements to the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to mean and include the subsequent filing of any document under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), and which is deemed to be incorporated by reference therein or otherwise deemed by the Rules and Regulations to be a part thereof.

(b) At the time of the filing of the Initial Registration Statement with the Commission, the conditions for use of Form S-3, set forth in the General Instructions thereto, were satisfied. The Initial Registration Statement was declared effective by the Commission under the Securities Act on November 29, 2010. The Company has complied, to the Commission’s satisfaction, with all requests of the Commission for additional or supplemental information. No other document with respect to the Initial Registration Statement has heretofore been filed with the Commission. No stop order suspending the effectiveness of the Registration Statement, any post-effective amendment thereto or the Rule 462(b) Registration Statement, if any, has been issued, and no proceeding for that purpose has been initiated or threatened by the Commission.

(c) For the purposes of this Agreement, the “**Applicable Time**” is 8:30 a.m. (Eastern time) on the date of this Agreement. The Disclosure Package (as defined below) at the Applicable Time complied in all material respects with the requirements of the Securities Act and the Rules and Regulations and did not include any untrue statement of a material fact or omit

to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements or omissions from the Disclosure Package made in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter through the Representative expressly for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 10(f).

(d) Each part of the Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendment thereto, at the time that such part became effective (including each deemed effective date with respect to the Underwriters pursuant to Rule 430B or otherwise under the Securities Act), at all other subsequent times until the expiration of the Prospectus Delivery Period (as defined below), and at the Time of Delivery (as defined below), and the Prospectus, at the time of filing or the time of first use within the meaning of the Rules and Regulations, at all subsequent times until expiration of the Prospectus Delivery Period, and at the Time of Delivery, complied and will comply in all material respects with the applicable requirements and provisions of the Securities Act, the Rules and Regulations and the Exchange Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus, as amended or supplemented, as of its date, or the time of first use within the meaning of the Rules and Regulations, at all subsequent times until the expiration of the Prospectus Delivery Period, and at the Time of Delivery, did not and will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences do not apply to statements in or omissions from the Registration Statement, any Rule 462(b) Registration Statement, or any post-effective amendment thereto, or the Prospectus made in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter through the Representative expressly for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 10(f).

(e) Neither (i) any Issuer General Free Writing Prospectus(es) issued at or prior to the Applicable Time and set forth on **Schedule II**, the Statutory Prospectus at the Applicable Time and the information set forth on **Schedule III**, all considered together (collectively, the **“Disclosure Package”**); nor (ii) any individual Issuer Limited-Use Free Writing Prospectus, when considered together with the Disclosure Package, includes or included as of the Applicable Time any untrue statement of a material fact or omits or omitted as of the Applicable Time to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the immediately preceding sentence do not apply to statements in or omissions from any Statutory Prospectus or any Issuer Free Writing Prospectus made in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter through the Representative expressly for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 10(f). As used in this paragraph and elsewhere in this Agreement:

(i) **“Statutory Prospectus”** means the Base Prospectus, as amended and supplemented immediately prior to the Applicable Time, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof. For purposes of this definition, Rule 430B Information contained in a form of prospectus that is deemed retroactively to be a part of the Registration Statement shall be considered to be included in the Statutory Prospectus as of the actual time that form of prospectus is filed with the Commission pursuant to Rule 424(b) under the Securities Act.

(ii) **“Issuer Free Writing Prospectus”** means any “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act, relating to the Shares and Warrants that (A) is required to be filed with the Commission by the Company; or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) under the Securities Act because it contains a description of the Shares and Warrants or of the offering that does not reflect the final terms, or is a “*bona fide* electronic roadshow,” as defined in Rule 433 of the Rules and Regulations, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g) under the Securities Act.

(iii) **“Issuer General Free Writing Prospectus”** means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors, as evidenced by its being specified in **Schedule II** hereto.

(iv) **“Issuer Limited-Use Free Writing Prospectus”** means any Issuer Free Writing Prospectus that is not an Issuer General Free Writing Prospectus.

(f) Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the Prospectus Delivery Period or until any earlier date that the Company notified or notifies the Underwriters as described in Section 7(c), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, any Statutory Prospectus or the Prospectus. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus made in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter through the Representative expressly for use therein; it being understood and agreed that the only such information furnished by the Representative consists of the information described as such in Section 10(f).

(g) Each Issuer Free Writing Prospectus satisfied, as of its issue date and at all subsequent times through the Prospectus Delivery Period, all other conditions to use thereof as set forth in Rules 164 and 433 under the Securities Act.

(h) The documents incorporated by reference in the Disclosure Package and in the Prospectus, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and were filed on a timely basis with the Commission, and none of such documents contained an untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; any further documents so filed and incorporated by reference in the Disclosure Package or in the Prospectus, when such documents are filed with the Commission,

will conform in all material respects to the requirements of the Exchange Act, and will not contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(i) 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 its properties and conduct its business as currently being conducted and as described in the Registration Statement, the Disclosure Package and the Prospectus and is duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except where the failure to be so qualified in any such jurisdiction would not reasonably be expected to have a material adverse effect on the business, prospects, operations, assets, financial condition, members' or stockholders' equity (as applicable) or results of operations of the Company and its consolidated Subsidiaries taken as a whole (a "**Material Adverse Effect**"). Complete and correct copies of the charter and bylaws of the Company and all amendments thereto have been delivered to the Underwriters, and no changes therein will be made on or after the date hereof through and including the Time of Delivery.

(j) The Company has no subsidiaries (as defined under the Securities Act) other than the subsidiaries set forth in Exhibit 21 to the Company's annual report on Form 10-K for the year ended June 30, 2010 (collectively, the "**Subsidiaries**"). The Company owns all of the issued and outstanding capital stock of each of the Subsidiaries. Other than the capital stock of the Subsidiaries, and other than with respect to its cash equivalents, the Company does not own, directly or indirectly, any shares of stock or any other equity interests or long-term debt securities of any corporation, firm, partnership, joint venture, association or other entity. Complete and correct copies of the charters and bylaws of each Subsidiary and all amendments thereto have been delivered to the Underwriters, and no changes therein will be made on or after the date hereof through and including the Time of Delivery. Each Subsidiary has been duly organized and is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation, with full corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the Disclosure Package and the Prospectus, except where failure to be in good standing would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Each Subsidiary is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction where the ownership or leasing of its properties or the conduct of its business requires such qualification, except where the failure to be so qualified and in good standing would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. All of the outstanding shares of capital stock of each of the Subsidiaries have been duly authorized and validly issued, are fully paid and non-assessable, have been issued in material compliance with all applicable securities laws, were not issued in violation of any preemptive right, resale right, right of first refusal or similar right and are owned by the Company subject to no security interest, other encumbrance or adverse claims. No options, warrants or other rights to purchase, agreements or other obligations to issue or other rights to convert any obligation into shares of capital stock or ownership interests in the Subsidiaries are outstanding. The Company

has no “significant subsidiary,” as that term is defined in Rule 1-02(w) of Regulation S-X under the Act.

**(k)** The Company has the authorized and outstanding capitalization as set forth in the Registration Statement, the Disclosure Package and the Prospectus, and all of the issued shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and non-assessable, have been issued in compliance with all federal and state securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities that have not been waived in writing (a copy of which has been delivered to counsel to the Underwriters) and conform in all material respects to the description thereof contained in the Registration Statement, the Disclosure Package and the Prospectus. Except as otherwise described in the Registration Statement, the Disclosure Package and the Prospectus, there are no preemptive rights or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of, any shares of Common Stock pursuant to the Company’s charter, bylaws or any agreement or other instrument to which the Company is a party or by which the Company is bound. Except as described in the Registration Statement, the Disclosure Package and the Prospectus, neither the filing of the Registration Statement nor the offering or sale of the Shares and Warrants as contemplated by this Agreement gives rise to any rights for or relating to the registration of any shares of Common Stock or other securities of the Company that have not been fully complied with or previously waived. Except as described or contemplated in the Registration Statement, the Disclosure Package and the Prospectus, there are no options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company any shares of the capital stock of the Company (other than as a result of the grant of stock options under the Company’s existing equity incentive plans). The description of the Company’s stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Disclosure Package and the Prospectus, accurately and fairly presents the information required to be shown with respect to such plans, arrangements, options and rights.

**(l)** The Shares have been duly authorized and, when issued and delivered against payment therefor as provided herein, will be validly issued and fully paid and non-assessable and free of statutory and contractual preemptive rights, resale rights, rights of first refusal and similar rights and of any restriction upon the voting or transfer thereof pursuant to the Michigan General Corporation Act or the Company’s charter or bylaws or any agreement or other instrument to which the Company is a party. The Warrants have been duly authorized, and when executed and delivered by the Company, will constitute valid and binding obligations of the Company enforceable in accordance with their terms, except that such enforcement may be subject to applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws, now or hereafter in effect, affecting creditors’ rights generally. The Warrant Shares have been duly authorized and reserved for issuance pursuant to the terms of the Warrants, and when issued by the Company upon valid exercise of the Warrants and payment of the exercise price, will be duly and validly issued, fully paid and nonassessable and free of any preemptive or similar rights. The Shares and the Warrants will conform in all material respects to the description of the Shares and Warrants contained in the Registration Statement, the Disclosure Package and the Prospectus. The certificates for the Shares, the Warrants and the Warrant Shares, if any, when issued, will be in due and proper form.

(m) The issuance and sale of the Shares and the Warrants to be sold by the Company pursuant hereto, the execution, delivery and performance by the Company of this Agreement and the consummation of the transactions herein contemplated will not conflict with, result in any breach or violation of or constitute a default under (nor constitute any event which, with notice, lapse of time or both, would result in any breach or violation of, constitute a default under or give the holder of any indebtedness (or a person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a part of such indebtedness under), or result in the creation or imposition of a lien, charge or encumbrance on any property or assets of the Company or any Subsidiary pursuant to, any indenture, mortgage, deed of trust, loan agreement or other evidence of indebtedness, lease, license, contract or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries is bound or to which any of the property or assets of the Company or any of its Subsidiaries is subject, except for such breaches or violations as would not, individually or in the aggregate, have a Material Adverse Effect, nor will such action result in any violation of (a) the provisions of the charter or bylaws of the Company or any of its Subsidiaries or (b) any statute or any order, rule or regulation of any court, arbitrator, governmental agency or body having jurisdiction over the Company or any of its Subsidiaries or any of their properties or (c) any rule or regulation of any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the rules and regulations of the NASDAQ Capital Market), except in the case of (b) or (c) above, for such violations as would not, individually or in the aggregate, have a Material Adverse Effect.

(n) No consent, approval, authorization, order, registration, qualification, permit, license, exemption, filing or notice (each, an "**Authorization**") of, from, with or to any court, government, governmental or regulatory authority, self-regulatory organization or body (each, a "**Regulatory Body**") is required for the execution, delivery or performance of this Agreement or the issuance and sale of the Shares and Warrants by the Company, except (i) the registration of the Shares and Warrants under the Securities Act; (ii) such consents, approvals, authorizations, registrations or qualifications as may be required under the rules of the Financial Industry Regulatory Authority ("**FINRA**") or state securities or Blue Sky laws or any securities laws of jurisdictions outside of the United States in connection with the purchase and distribution of the Shares and Warrants by the Underwriters; and (iii) such other Authorizations the absence of which would not, individually or in the aggregate, have a Material Adverse Effect; and no event has occurred that allows or results in, or after notice or lapse of time or both would allow or result in, revocation, suspension, termination or invalidation of any such Authorization or any other impairment of the rights of the holder or maker of any such Authorization.

(o) This Agreement has been duly authorized, executed and delivered by the Company and constitutes a valid, legal and binding obligation of the Company, enforceable in accordance with its terms, except as rights to indemnity hereunder may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity.

(p) The Company has full power and authority to enter into this Agreement and to consummate the transactions contemplated hereby, including, without limitation, the authorization, issuance and sale of the Shares and Warrants as contemplated by this Agreement.

All corporate actions (including those of stockholders) necessary for the Company to consummate the transactions contemplated in this Agreement have been obtained and are in effect. Except as described in the Disclosure Package and the Prospectus, no approval of the Company (including the approval of its stockholders) is required under the rules and regulations of any trading market for the Company to issue and deliver to the Underwriters the Shares and Warrants.

**(q)** The conditions for use of Form S-3, set forth in the General Instructions thereto, have been satisfied.

**(r)** Neither the Company nor any of its Subsidiaries is in breach or violation of or in default under (nor has any event occurred which, with notice, lapse of time or both, would result in any breach or violation of, constitute a default under or give the holder of any indebtedness (or a person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a part of such indebtedness under) (i) its charter or bylaws or other organizational documents; (ii) any indenture, mortgage, deed of trust, loan agreement or other evidence of indebtedness, lease, license, contract or other agreement or instrument to which it is a party or by which it or any of its properties may be bound or affected; (iii) any federal, state, local or foreign law, regulation or rule, including, without limitation, the Sarbanes-Oxley Act of 2002 (the "**Sarbanes-Oxley Act**") or the rules and regulations of the Commission thereunder; (iv) any rule or regulation of any self-regulatory organization or other non-governmental regulatory authority (including, without limitation, the rules and regulations of the NASDAQ Capital Market); or (v) any decree, judgment or order applicable to it or any of its properties, except for such defaults specified under subparagraphs (ii) through (v) herein that would not have a Material Adverse Effect.

**(s)** Neither the Company nor any of its Subsidiaries has sustained since the date of the latest audited financial statements included in the Prospectus any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as described in the Disclosure Package and the Prospectus, except for such loss or interference as would not, individually or in the aggregate, have a Material Adverse Effect; and, since the respective dates as of which information is given in the Registration Statement, the Disclosure Package and the Prospectus, there has not been any change in the capital stock (other than issuances of shares of capital stock pursuant to the exercise of options or warrants) or short-term or long-term debt, or any issuance of options, warrants, convertible securities or other rights to purchase capital stock (other than issuances of options under the Company's existing stock option plans), of the Company or any of its Subsidiaries or any material adverse change, or any development that would reasonably be expected to have a Material Adverse Effect other than as described in the Disclosure Package and the Prospectus. Except as described in the Disclosure Package and the Prospectus, neither the Company nor any of its Subsidiaries has incurred any material liabilities or obligations, direct or contingent, entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock.

**(t)** The Company and its Subsidiaries have good and marketable title in fee simple to all real property and good and marketable title to all material personal property (other

than Intellectual Property) described in the Registration Statement, the Disclosure Package and the Prospectus as being owned by them, in each case free and clear of all liens, encumbrances and defects except such as are described in the Registration Statement, the Disclosure Package and the Prospectus or such as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and its Subsidiaries; and any real property and buildings held under lease by the Company and its Subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its Subsidiaries.

(u) The Company and each of its Subsidiaries holds, and is operating in compliance with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders (each, a **“Permit”**) of any Regulatory Body required for the conduct of its business; all such Permits are valid and in full force and effect, except where the failure to hold or comply with any such Permits would not, individually or in the aggregate, result in a Material Adverse Effect; and neither the Company nor any of its Subsidiaries has received notice of any revocation, suspension or modification of any such Permit or has reason to believe that any such Permit will not be renewed in the ordinary course of business.

(v) The Company and each of its Subsidiaries owns, possesses or can acquire on reasonable terms all Intellectual Property (as defined below) necessary for the conduct of its business as now conducted or as described in the Registration Statement, the Disclosure Package and the Prospectus to be conducted, except for such failure to own, possess, or ability to acquire such rights as would not result in a Material Adverse Effect. Except as set forth in Registration Statement, the Disclosure Package and the Prospectus, (i) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any such Intellectual Property, except for such infringement, misappropriation or violation as would not result in a Material Adverse Effect; (ii) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the Company’s or any of its Subsidiaries’ rights in or to any such Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (iii) the Intellectual Property owned by the Company and its Subsidiaries, and, to the knowledge of the Company, the Intellectual Property licensed to the Company and its Subsidiaries has not been adjudged invalid or unenforceable, in whole or in part, there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property, and the Company is unaware of any facts that would form a reasonable basis for any such claim; (iv) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others that the Company or any of its Subsidiaries infringes, misappropriates or otherwise violates any Intellectual Property or other proprietary rights of others, neither the Company nor any of its Subsidiaries has received any written notice of such claim and the Company is unaware of any other fact which would form a reasonable basis for any such claim; (v) the Company and its Subsidiaries have not been advised of and have not received a written notice of breach of any of their agreements with the University of Michigan, Sparton Corporation or ATEK Medical, LLC, (vi) all patent applications owned by or licensed to the Company and its Subsidiaries (including all applications pursuant to which patents have been issued) have, to the knowledge of the Company and its Subsidiaries, been duly and properly filed, and to the knowledge of the Company and its Subsidiaries, the



parties prosecuting such applications have complied with their duty of candor and disclosure to the U.S. Patent and Trademark Office (“**USPTO**”) in connection with such applications, and the Company and its Subsidiaries are not aware of any facts required to be disclosed to the USPTO that were not disclosed to the USPTO and which would preclude the grant of a patent in connection with any such application or could form the basis of a finding of invalidity with respect to any patents that have issued with respect to such applications; and (vii) to the Company’s knowledge, no employee of the Company or any of its Subsidiaries is in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee’s employment with the Company or one of its Subsidiaries or actions undertaken by the employee while employed with the Company or such Subsidiary, except as such violation would not result in a Material Adverse Effect. “**Intellectual Property**” shall mean all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets, technology, know-how and other intellectual property.

(w) The Company has operated and currently is in compliance with the United States Federal Food, Drug, and Cosmetic Act, as amended, all applicable rules and regulations of the U.S. Food and Drug Administration (“**FDA**”) and other federal, state, local and foreign governmental bodies exercising comparable authority, except where the failure to so operate or be in compliance would not have a Material Adverse Effect. The clinical studies conducted by or on behalf of the Company that are described in the Registration Statement and the Prospectus were, and, if still pending, are being, conducted in accordance with the protocols submitted to the FDA and all applicable laws and regulations; preclinical studies conducted by or on behalf of the Company or its subsidiaries that are described in the Registration Statement and the Prospectus were, and, if still pending, are being, conducted in accordance with experimental protocols, procedures and controls; the descriptions of the tests and preclinical and clinical studies, and results thereof, conducted by or on behalf of the Company contained in the Registration Statement and the Prospectus are accurate and complete in all material respects; and the Company is not aware of any other trials or studies, the results of which call into question the results described or referred to in the Registration Statement and the Prospectus; and the Company has not received any notice or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority requiring the termination, suspension, or clinical hold of any preclinical or clinical studies with respect to product candidates currently under development, or such notice or correspondence from any Institutional Review Board or comparable authority requiring the termination or suspension of a clinical study, conducted by or on behalf of the Company, which termination, suspension, or clinical hold would have a Material Adverse Effect. None of the Company, its Subsidiaries, or their respective business operations, is in violation of any Health Care Laws, except as would not reasonably be expected to result in a Material Adverse Effect. For purposes of this Agreement, “Health Care Laws” means (i) the Health Insurance Portability and Accountability Act of 1996 (Pub. L. No. 104-191) and the Health Information Technology for Economic and Clinical Health Act of 2009, and the regulations promulgated thereunder and comparable state privacy and security laws, (ii) the federal Food, Drug, and Cosmetic Act (21 U.S.C. § 301 et seq.) and the regulations promulgated pursuant thereto; (iii) the Clinical Laboratory Improvement Amendments of 1988 (Pub. L. No. 100-578) and the regulations promulgated pursuant thereto; (iv) quality, safety and accreditation

standards and requirements of all applicable state laws or regulatory bodies; and (v) any and all other applicable health care laws, regulations, manual provisions, policies and administrative guidance, each of (i) through (v) as may be amended from time to time. The Company has not received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority alleging that any product, operation or activity is in material violation of any applicable Health Care Law or Permit and has no knowledge that any such governmental authority is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; and the Company has not received notice, either verbally or in writing, that any governmental authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any material Permits and has no knowledge that any such governmental authority is considering such action.

(x) The Company and each of its Subsidiaries (i) is in compliance with any and all applicable federal, state, local and foreign laws, rules, regulations, decisions and orders relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, “**Environmental Laws**”); (ii) has received and is in material compliance with all Permits required of it under applicable Environmental Laws to conduct its business; and (iii) has not received notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except in any such case for any such failure to comply, failure to receive required Permits or liability as would not, individually or in the aggregate, result in a Material Adverse Effect.

(y) The Company and each of its Subsidiaries (i) is in compliance, in all material respects, with any and all applicable foreign, federal, state and local laws, rules, regulations, treaties, statutes and codes promulgated by any and all governmental authorities (including pursuant to the Occupational Health and Safety Act) relating to the protection of human health and safety in the workplace (“**Occupational Laws**”); (ii) has received all material Permits required of it under applicable Occupational Laws to conduct its business as currently conducted; and (iii) is in compliance, in all material respects, with all terms and conditions of such Permit. No action, proceeding, revocation proceeding, writ, injunction or claim is pending or, to the Company’s knowledge, threatened against the Company or any of its Subsidiaries relating to Occupational Laws, and the Company does not have knowledge of any facts, circumstances or developments relating to its operations or cost accounting practices that could reasonably be expected to form the basis for or give rise to such actions, suits, investigations or proceedings.

(z) Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“**ERISA**”), that is maintained, administered or contributed to by the Company or any of its affiliates for employees or former employees of the Company or any of its Subsidiaries has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to, ERISA and the Internal Revenue Code of 1986, as amended (the “**Code**”). No prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption; and for each such plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no “accumulated funding

deficiency” as defined in Section 412 of the Code has been incurred, whether or not waived, and the fair market value of the assets of each such plan (excluding for these purposes accrued but unpaid contributions) exceeds the present value of all benefits accrued under such plan determined using reasonable actuarial assumptions.

**(aa)** Except for matters which would not, individually or in the aggregate, result in a Material Adverse Effect, (i) there is (A) no unfair labor practice complaint pending or, to the knowledge of the Company, threatened against the Company or any of the Subsidiaries before the National Labor Relations Board, and no grievance or arbitration proceeding arising out of or under collective bargaining agreements is pending, or to the knowledge of the Company, threatened, (B) no strike, labor dispute, slowdown or stoppage, pending or, to the knowledge of the Company, threatened against the Company or any of the Subsidiaries and (C) no union representation dispute currently existing concerning the employees of the Company or any of the Subsidiaries.

**(bb)** Except as set forth in the Registration Statement, the Disclosure Package and the Prospectus, neither the Company nor any of its Subsidiaries has granted rights to develop, manufacture, produce, assemble, distribute, license, market or sell its products to any other person, and neither the Company nor any of its Subsidiaries is bound by any agreement that affects the Company’s or any of its Subsidiaries’ exclusive right to develop, manufacture, produce, assemble, distribute, license, market or sell its products.

**(cc)** Nothing has come to the attention of the Company that has caused the Company to believe that the statistical and market-related data included in the Registration Statement, the Disclosure Package and the Prospectus is not based on or derived from sources that are reliable and accurate in all material respects.

**(dd)** The Company and each of its Subsidiaries carries, or is covered by, insurance issued by insurers of nationally recognized financial responsibility in such amounts and covering such risks as is reasonably adequate for the conduct of its business and the value of its properties and as is customary for companies engaged in similar businesses in similar industries; and neither the Company nor any of its Subsidiaries has (i) received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance; or (ii) received notice from any insurer or agent that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business. All such insurance is outstanding and duly in force on the date hereof.

**(ee)** The Company and each of its Subsidiaries has timely filed all federal, state, local and foreign income and franchise tax returns required to be filed and are not in default in the payment of any taxes which were payable pursuant to said returns or any assessments with respect thereto, other than any that the Company or such Subsidiary is contesting in good faith, except for such taxes and assessments which would not reasonably be expected to have a Material Adverse Effect. There is no pending dispute with any taxing authority relating to any of such returns, and the Company has no knowledge of any proposed liability for any tax to be imposed upon the properties or assets of the Company or any of its

Subsidiaries for which there is not an adequate reserve reflected in the Company's financial statements included in the Registration Statement, the Disclosure Package and the Prospectus.

**(ff)** Other than as set forth in the Registration Statement, the Disclosure Package and the Prospectus, there are no legal or governmental proceedings pending to which the Company or any of its Subsidiaries is a party or of which any property of the Company or any of its Subsidiaries is the subject which, if determined adversely to the Company or any of its Subsidiaries, would reasonably be expected to, individually or in the aggregate, have a Material Adverse Effect; and, to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others. There are no current or pending legal, governmental or regulatory actions, suits or proceedings that are required to be described in the Registration Statement, the Disclosure Package and the Prospectus that have not been so described.

**(gg)** There are no statutes, regulations, contracts or documents that are required to be described in the Registration Statement, the Disclosure Package and the Prospectus or to be filed as exhibits to the Registration Statement by the Securities Act or by the Rules and Regulations that have not been so described or filed.

**(hh)** The Company is not and, after giving effect to the offering and sale of the Shares and Warrants and the application of the proceeds thereof, will not be an "investment company," as such term is defined in the Investment Company Act of 1940, as amended (the "**Investment Company Act**").

**(ii)** At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a *bona fide* offer (within the meaning of Rule 164(h)(2) under the Securities Act) of the Shares and Warrants and at the date hereof, the Company was not and is not an "ineligible issuer," as defined in Rule 405 under the Securities Act, in the preceding three years not having been convicted of a felony or misdemeanor or having been made the subject of a judicial or administrative decree or order as described in Rule 405 (without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer), nor an "excluded issuer" as defined in Rule 164 under the Securities Act.

**(jj)** The Company has not distributed and will not distribute any prospectus or other offering material in connection with the offering and sale of the Shares and Warrants other than the Disclosure Package or the Prospectus, or other materials permitted by the Securities Act to be distributed by the Company; *provided, however*, that, except as set forth on **Schedule II**, the Company has not made and will not make any offer relating to the Shares and Warrants that would constitute a "free writing prospectus" as defined in Rule 405 under the Securities Act, except in accordance with the provisions of Section 7(a) of this Agreement.

**(kk)** The Common Stock of the Company is registered pursuant to Section 12(b) of the Exchange Act and is listed on the NASDAQ Capital Market under the ticker symbol "ASTM." 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 Capital Market nor, except as disclosed in the Company's

Quarterly Report on Form 10-Q for the quarter ended December 31, 2009, has the Company received any notice that it is not in compliance with the listing or maintenance requirements of the NASDAQ Capital Market. The Company believes that it is, and has no reason to believe that it will not in the foreseeable future continue to be, in material compliance with all such listing and maintenance requirements. Except as described in the Registration Statement, the Disclosure Package and the Prospectus, there are no affiliations among the Company's directors and officers and members of FINRA. A registration statement relating to the Common Stock on Form 8-A or other applicable form under the Exchange Act has become effective.

**(ll)** PricewaterhouseCoopers LLP, who has certified certain financial statements of the Company and its Subsidiaries filed as a part of the Registration Statement and included in the Registration Statement, the Disclosure Package and the Prospectus, is (i) an independent public accounting firm as required by the Securities Act and the Rules and Regulations; (ii) a registered public accounting firm (as defined in Section 2(a)(12) of the Sarbanes-Oxley Act); and (iii) in the performance of its work for the Company, not in violation of the auditor independence requirements of the Sarbanes-Oxley Act and the rules and regulations of the Commission thereunder.

**(mm)** The financial statements of the Company and its Subsidiaries (including all notes and schedules thereto) set forth or incorporated by reference in the Registration Statement, the Disclosure Package and the Prospectus comply in all material respects with the requirements of the Securities Act and the Exchange Act and present fairly the financial position of the Company and its consolidated Subsidiaries at the dates indicated and the statement of operations, stockholders' equity and cash flows of the Company and its Subsidiaries for the periods specified in conformity with generally accepted accounting principles in the United States ("**GAAP**"), consistently applied throughout the periods involved; and the summary and selected financial data included in the Registration Statement, the Disclosure Package and the Prospectus present fairly the information shown therein as at the respective dates and for the respective periods specified and are derived from the consolidated financial statements set forth in the Registration Statement, the Disclosure Package and the Prospectus and other accounting records of the Company. No other schedules or financial statements are required to be included in the Registration Statement, the Disclosure Package and the Prospectus. Except as described in the Disclosure Package and the Prospectus, there are no material off-balance sheet transactions, arrangements, obligations (including contingent obligations), or any other relationships with unconsolidated entities or other persons, that may have a material current or, to the Company's knowledge, future effect on the Company's financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources or significant components of revenue or expenses. All non-GAAP financial information included in the Registration Statement, the Disclosure Package and the Prospectus complies with the requirements of Regulation G and Item 10 of Regulation S-K under the Securities Act.

**(nn)** The Company maintains a system of internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that complies with the requirements of the Exchange Act and has been designed by the Company's principal executive officer and principal financial officer, or under their supervision, to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of

financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company's internal control over financial reporting is effective. The Company's board of directors has, subject to the exceptions, cure periods and the phase in periods specified in the applicable stock exchange rules ("**Exchange Rules**"), validly appointed an audit committee to oversee internal accounting controls whose composition satisfies the applicable requirements of the Exchange Rules and the Company's board of directors and/or the audit committee has adopted a charter that satisfies the requirements of the Exchange Rules.

**(oo)** Neither the Company's board of directors nor the audit committee has been informed, nor is any director of the Company or the Company aware, of (i) during the past 36 months, any "significant deficiencies" or "material weaknesses" (each as defined by the Public Company Accounting Oversight Board) in the design or operation of the Company's internal controls that could adversely affect the Company's ability to record, process, summarize and report financial data; or (ii) any fraud, whether or not material, that involves management or other employees of the Company who have a significant role in the Company's internal controls.

**(pp)** Since the date of the latest audited financial statements of the Company included in the Prospectus, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting (other than as set forth in the Disclosure Package and the Prospectus).

**(qq)** The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Exchange Act) that comply with the requirements of the Exchange Act, such disclosure controls and procedures have been designed to ensure that material information relating to the Company and its Subsidiaries is made known to the Company's principal executive officer and principal financial officer by others within those entities, and such disclosure controls and procedures are effective. The Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, the Disclosure Package and the Prospectus.

**(rr)** No relationship, direct or indirect, exists between or among the Company, on the one hand, and the directors or officers or, to the knowledge of the Company, stockholders, customers or suppliers of the Company, on the other hand, which is required to be described in the Registration Statement, the Disclosure Package and the Prospectus and which is not so described. There are no outstanding loans, advances or guarantees of indebtedness by the Company to or for the benefit of any of the executive officers or directors of the Company in violation of applicable laws, including Section 402 of the Sarbanes-Oxley Act.

**(ss)** To the knowledge of the Company, no person associated with or acting on behalf of the Company, including without limitation any director, officer, agent or employee of the Company or its Subsidiaries has, directly or indirectly, while acting on behalf of the Company or its Subsidiaries (i) used any corporate funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity; (ii) made any unlawful

payment to foreign or domestic government officials or employees or to foreign or domestic political parties or campaigns from corporate funds; (iii) violated any provision of the Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any other unlawful payment.

**(tt)** Except as contemplated by this Agreement and as disclosed in the Registration Statement, the Disclosure Package and the Prospectus, no person is entitled to receive from the Company a brokerage commission, finder's fee or other like payment in connection with the transactions contemplated herein.

**(uu)** The Company has not taken, directly or indirectly, any action designed to or that might reasonably be expected to cause or result in, or which has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares and Warrants, and has not effected any sales of Common Stock which are required to be disclosed in response to Item 701 of Regulation S-K under the Securities Act which have not been so disclosed in the Registration Statement.

**(vv)** All of the information provided to the Underwriters or to counsel for the Underwriters by the Company, its officers and directors in connection with letters, filings or other supplemental information provided pursuant to FINRA Rule 5110 or the National Association of Securities Dealers Inc. (the "NASD") Rule 2710 or 2720 is true, complete and correct. Neither the Company nor, to the knowledge of the Company, any of its affiliates (within the meaning of the NASD Conduct Rule 2720(f)(1)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section 1(ee) of the By-laws of FINRA) of, any member firm of FINRA. To the knowledge of the Company, there are no affiliations with the FINRA among the Company's officers or directors. To enable the Underwriters to rely on FINRA Rule 5110(b)(7)(C)(i), (i) the Company was subject to the requirements of Section 12 or 15(d) of the Exchange Act and filed all the material required to be filed pursuant to Sections 13, 14 or 15(d) for a period of at least thirty-six calendar months immediately preceding the date of this Agreement; (ii) the Company filed in a timely manner all reports required to be filed pursuant to Section 13, 14 or 15(d) of the Exchange Act during the twelve calendar months and any portion of a month immediately preceding the date of this Agreement; (iii) the last reported sale price of the Company's common stock on the Nasdaq Capital Market on November 17, 2010 was \$4.20; (iv) as of such date, there were greater than 23,809,524 shares of the Company's common stock outstanding and held by non-affiliates of the Company; and (v) the Company has annual trading volume of 3 million shares or more.

**(ww)** Neither the Company nor any of its Subsidiaries or controlled affiliates does business with the government of, or with any person located in any country in a manner that violates in any material respect any of the economic sanctions programs or similar sanctions-related measures of the United States as administered by the United States Treasury Department's Office of Foreign Assets Control; and the net proceeds from this offering will not be used to fund any operations in, finance any investments in or make any payments to any country, or to make any payments to any person, in a manner that violates any of the economic sanctions of the United States administered by the United States Treasury Department's Office of Foreign Assets Control.

(xx) Neither the Company nor any of its Subsidiaries or controlled affiliates does business with the government of Cuba or with any person located in Cuba within the meaning of Section 517.075, Florida Statutes.

(yy) The Company and its board of directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's charter documents or the laws of its state of incorporation that is or could reasonably be expected to become applicable to the Underwriters as a result of the Underwriters and the Company fulfilling their respective obligations or exercising their respective rights under this Agreement, including, without limitation, the Company's issuance of the Shares and Warrants and the Underwriters' ownership of the Shares and Warrants.

2. Subject to the terms and conditions herein set forth, the Company agrees to sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price per Unit of \$2.113875 (the "**Purchase Price**"), the number of Shares and the Warrants (to be adjusted by the Representative so as to eliminate fractional Shares and Warrants) determined by multiplying the aggregate number of Shares and Warrants to be sold by the Company by a fraction, the numerator of which is the aggregate number of Shares and Warrants to be purchased by such Underwriter as set forth opposite the name of such Underwriter in **Schedule I** hereto and the denominator of which is the aggregate number of Shares and Warrants to be purchased by all of the Underwriters from the Company hereunder.

3. Upon the authorization by the Representative of the release of the Shares and the Warrants, the several Underwriters propose to offer the Shares and the Warrants for sale upon the terms and conditions set forth in the Prospectus.

4. (a) The Shares to be purchased by each Underwriter hereunder will be represented by one or more definitive global shares in book-entry form, which will be deposited by or on behalf of the Company with the Depository Trust Company ("**DTC**") or its designated custodian. The Warrants to be purchased by each Underwriter hereunder will be in physical, certificated form. The Company will deliver the Shares and the Warrants as directed by the Representative, for the account of each Underwriter, against payment by or on behalf of each such Underwriter of the purchase price therefor by wire transfer of Federal (same-day) funds to the account specified by the Company to the Representative, by (i) in the case of the Shares, causing DTC to credit the Shares to the account of the Representative at DTC and (ii) in the case of the Warrants, physical delivery as directed by the Representative. The time and date of such delivery and payment shall be, with respect to the Shares and Warrants, 10:00 a.m., New York time, on December 15, 2010, or such other time and date as the Representative and the Company may agree upon in writing. Such time and date for delivery of the Shares and the Warrants is herein called the "**Time of Delivery**".

(b) The documents to be delivered at the Time of Delivery by or on behalf of the parties hereto pursuant to Section 9 hereof, including the cross receipt for the Shares and the Warrants and any additional documents requested by the Underwriters pursuant to Section 9(q) hereof, will be delivered at the offices of Cooley LLP at 1114 Avenues of the Americas, New



York, New York 10036 (the “**Closing Location**”), and the Shares will be delivered at the office of DTC or its designated custodian (the “**Designated Office**”), and the Warrants will be delivered as directed by the Representative, all at the Time of Delivery.

(c) For the purposes of this Agreement, “**New York Business Day**” shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York City are generally authorized or obligated by law or executive order to close.

5. The Company acknowledges and agrees that (a) the purchase and sale of the Shares and Warrants pursuant to this Agreement is an arm’s-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other; (b) in connection therewith and with the process leading to such transaction, each Underwriter is acting solely as a principal and not the agent or fiduciary of the Company; (c) no Underwriter has assumed an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement; (d) the Company has consulted its own legal and financial advisors to the extent it deemed appropriate and is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (e) the Company has been advised that each of the Underwriters and their affiliates is engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Underwriters have no obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; (f) the Company has been advised that each of the Underwriters is acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of each such Underwriter, and not on behalf of the Company; and (g) the Company waives to the fullest extent permitted by law, any claims it may have against any Underwriter for breach of fiduciary duty or alleged breach of fiduciary duty in respect of any of the transactions contemplated by this Agreement and agrees that no Underwriter shall have any liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company, on the one hand, and the Underwriters, or any of them, on the other, with respect to the subject matter hereof.

The Company and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

6. The Company agrees with each of the Underwriters:

(a) To prepare the Prospectus in a form approved by the Representative and to file (i) the Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission’s close of business on the second New York Business Day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by Rule

430A(a)(3) under the Securities Act; during the period beginning on the date hereof and ending on the later of the Time of Delivery and the date, as determined in the opinion of counsel for the Underwriters, that the Prospectus is no longer required by law to be delivered (assuming the absence of Rule 172 of the Securities Act) in connection with the sales by an underwriter or a dealer (the “**Prospectus Delivery Period**”), to furnish to the Underwriters for review a copy of any proposed amendment or supplement to the Registration Statement, the Disclosure Package or the Prospectus; to make no amendment or supplement to the Registration Statement, the Disclosure Package or the Prospectus during the Prospectus Delivery Period to which the Underwriters or their counsel reasonably objects; to advise the Underwriters, promptly after the Company receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any supplement to the Disclosure Package or the Prospectus or any amended Prospectus has been filed and to furnish the Underwriters with copies thereof; to file promptly all material required to be filed by the Company with the Commission pursuant to Rule 433(d) under the Securities Act; to advise the Underwriters, promptly after it receives notice or obtains knowledge thereof, of the issuance by the Commission of any stop order or of any order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or preventing or suspending the use of any Preliminary Prospectus, the Disclosure Package, the Prospectus or any Issuer Free Writing Prospectus, of the suspension of the qualification of the Shares and Warrants for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose or of any request by the Commission for the amending or supplementing of the Registration Statement, the Disclosure Package or the Prospectus or for additional information; to use its best efforts to prevent and to promptly use its best efforts to obtain the withdrawal of any such order;

**(b)** During the Prospectus Delivery Period, to comply with all requirements imposed upon it by the Securities Act and by the Rules and Regulations and by the Exchange Act so far as necessary to permit the continuance of sales of or dealings in the Shares and Warrants as contemplated by the provisions of this Agreement, the Disclosure Package and the Prospectus; if, during the Prospectus Delivery Period, any event shall occur or condition shall exist as a result of which the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the Disclosure Package) would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend or supplement the Registration Statement or supplement the Prospectus (or, if the Prospectus is not yet available to prospective purchasers, the Disclosure Package) to comply with the Securities Act, or to file under the Exchange Act any document which would be deemed to be incorporated by reference in the Prospectus in order to comply with the Securities Act or the Exchange Act, to promptly notify the Underwriters and to amend or supplement the Registration Statement or supplement the Prospectus (or, if the Prospectus is not yet available to prospective purchasers, the Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance;

**(c)** Promptly from time to time to take such action as the Underwriters may reasonably request to qualify the Shares and Warrants for offering and sale under the securities laws of such jurisdictions as the Underwriters may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Shares and Warrants, *provided* that in connection

therewith the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction;

(d) To furnish, at its own expense, to the Underwriters and counsel for the Underwriters copies of the Registration Statement (which will include three complete manually signed copies of the Registration Statement and all consents and exhibits filed therewith), and to the Underwriters and any dealer the Preliminary Prospectus, the Disclosure Package and the Prospectus and any Issuer Free Writing Prospectus and all amendments and supplements to such documents, in each case as soon as available and in such quantities as the Underwriters may from time to time reasonably request;

(e) To make generally available to its securityholders as soon as practicable, but in any event not later than eighteen months after the effective date of the Registration Statement (as defined in Rule 158(c) under the Act), an earnings statement of the Company and its Subsidiaries (which need not be audited) complying with Section 11(a) of the Securities Act and the Rules and Regulations (including, at the option of the Company, Rule 158);

(f) During the period beginning from the date hereof and continuing to and including the date 90 days after the date of the Prospectus (the “**Lock-Up Period**”), not to offer, sell, contract to sell or otherwise dispose of, except as provided hereunder, any securities of the Company, including but not limited to any securities that are convertible into or exchangeable for, or that represent the right to receive, shares of Common Stock or any such substantially similar securities (other than pursuant to employee stock option plans existing on, or upon the conversion or exchange of convertible or exchangeable securities outstanding as of, the date of this Agreement), without the Representative’s prior written consent; *provided, however*, that if (i) during the last 17 days of the initial Lock-Up Period, the Company releases earnings results or announces material news or a material event, or (ii) prior to the expiration of the initial Lock-Up Period, the Company announces that it will release earnings results during the 15-day period following the last day of the initial Lock-Up Period, then, in each case, the Lock-Up Period will be automatically extended until the expiration of the 18-day period beginning on the date of release of the earnings results or the announcement of the material news or material event, as applicable, unless the Representative waives, in writing, such extension; the Company will provide the Representative with prior notice of any such announcement that gives rise to an extension of the Lock-Up Period;

(g) To issue stop transfer instructions to the transfer agent for the Common Stock with respect to any transaction or contemplated transaction that would constitute a breach of or default under the agreements required by Section 9(j);

(h) Unless otherwise publicly available in electronic format on the website of the Company or the Commission, to furnish to its stockholders as soon as practicable after the end of each fiscal year an annual report (including a balance sheet and statements of income, stockholders’ equity and cash flows of the Company and its consolidated subsidiaries certified by independent public accountants) and, as soon as practicable after the end of each of the first three quarters of each fiscal year (beginning with the fiscal quarter ending after the effective date of the Registration Statement), to make available to its stockholders consolidated summary financial information of the Company and its Subsidiaries for such quarter in reasonable detail;

**(i)** During a period of three years from the effective date of the Registration Statement, unless otherwise publicly available in electronic format on the website of the Company or the Commission, to furnish to the Underwriters copies of all reports or other communications (financial or other) furnished to stockholders, and to deliver to the Underwriters (i) as soon as they are available, copies of any reports and financial statements furnished to or filed with the Commission, FINRA or any national securities exchange on which any class of securities of the Company is listed; and (ii) such additional information concerning the business and financial condition of the Company as the Underwriters may from time to time reasonably request (such financial statements to be on a consolidated basis to the extent the accounts of the Company and its Subsidiaries are consolidated in reports furnished to its stockholders generally or to the Commission); provided that the Company shall not be required to provide documents the provisions of which would require public disclosure by the Company under Regulation FD;

**(j)** To use the net proceeds received by it from the sale of the Shares and Warrants pursuant to this Agreement in the manner specified in the Prospectus under the caption "Use of Proceeds";

**(k)** Not to take, directly or indirectly, any action designed to or which might reasonably be expected to cause or result in, or which has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares and Warrants, and not to effect any sales of Common Stock which are required to be disclosed in response to Item 701 of Regulation S-K under the Securities Act which have not been so disclosed in the Registration Statement;

**(l)** Other than as contemplated by this Agreement (including any schedules hereto), not to incur any liability for any finder's or broker's fee or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby;

**(m)** During the Prospectus Delivery Period, to file with the Commission such periodic and special reports as required by the Rules and Regulations;

**(n)** To maintain the controls and other procedures required by Sections 302 and 906 of the Sarbanes-Oxley Act and the applicable regulations thereunder;

**(o)** To comply with all applicable provisions of the Sarbanes-Oxley Act;

**(p)** If the Company elects to rely upon Rule 462(b) under the Securities Act, to file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) under the Securities Act by 10:00 P.M., Washington, D.C. time, on the date of this Agreement, and, at the time of filing, either to pay to the Commission the filing fee for the Rule 462(b) Registration Statement or give irrevocable instructions for the payment of such fee pursuant to Rule 111(b) under the Securities Act;

**(q)** To reserve and keep available at all times a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue the Warrant Shares;

(r) Upon request of any Underwriter, to furnish, or cause to be furnished, to such Underwriter an electronic version of the Company's trademarks, servicemarks and corporate logo for use on the website, if any, operated by such Underwriter for the purpose of facilitating the on-line offering of the Shares and Warrants (the "**License**"); *provided, however*, that the License shall be used solely for the purpose described above, is granted without any fee and may not be assigned or transferred; and

(s) To use its best efforts to list, subject to notice of issuance, the Shares and the Warrant Shares on the Nasdaq Capital Market and to maintain the listing of the Shares and the Warrant Shares on the Nasdaq Capital Market.

7. (a) The Company represents and agrees that, without the prior consent of the Representative, it has not made and will not make any offer relating to the Shares and Warrants that would constitute a "free writing prospectus" as defined in Rule 405 under the Securities Act; each Underwriter represents and agrees that, without the prior consent of the Company and the Representative, it has not made and will not make any offer relating to the Shares and Warrants that would constitute a free writing prospectus; any such free writing prospectus the use of which has been consented to by the Company and the Representative is listed on **Schedule II** hereto.

(b) The Company has complied and will comply with the requirements of Rule 433 under the Securities Act applicable to any Issuer Free Writing Prospectus, including, without limitation, timely filing with the Commission or retention where required and legending; and the Company represents that it has satisfied and agrees that it will satisfy the conditions under Rule 433 under the Securities Act to avoid a requirement to file with the Commission any electronic road show.

(c) The Company agrees that if at any time following issuance of an Issuer Free Writing Prospectus any event occurred or occurs as a result of which such Issuer Free Writing Prospectus would conflict with the information in the Registration Statement, the Disclosure Package and the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances then prevailing, not misleading, the Company will give prompt notice thereof to the Underwriters and, if requested by the Underwriters, will prepare and furnish without charge to each Underwriter an Issuer Free Writing Prospectus or other document which will correct such conflict, statement or omission.

8. The Company covenants and agrees with the several Underwriters that the Company will pay or cause to be paid the following, whether or not the transactions contemplated hereunder are consummated or this Agreement is prevented from becoming effective or is terminated: (a) all expenses (including, without limitation, transfer taxes allocated to the respective transferees) in connection with the delivery to the Underwriters of the Shares and Warrants; (b) all expenses (including, without limitation, the fees, disbursements and expenses of the Company's counsel and accountants) in connection with the preparation, printing, reproduction, filing, delivery and shipping of the Registration Statement, the Preliminary Prospectus, the Disclosure Package, the Prospectus and any Issuer Free Writing Prospectus, and amendments and supplements thereto, and the mailing and delivery of copies thereof to the Underwriters and dealers; (c) the cost of printing or producing, delivery and

shipping of any Agreement Among Underwriters, this Agreement, the Blue Sky Memorandum, closing documents (including, without limitation, any compilations thereof) and any other documents in connection with the offering, purchase, sale and delivery of the Shares and Warrants; (d) all expenses in connection with the qualification of the Shares and Warrants for offering and sale under state securities laws as provided in Section 6(c) hereof, including, without limitation, the reasonable fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky survey; (e) all fees and expenses in connection with listing the Shares and the Warrant Shares on the NASDAQ Capital Market; (f) the filing fees incident to, and the fees and disbursements of counsel for the Underwriters in connection with, securing any required review by the FINRA of the terms of the sale of the Shares and Warrants; (g) the cost of preparing stock certificates; (h) the cost and charges of any transfer agent or registrar; (i) costs and expenses of the Company relating to investor presentations or any “roadshow” undertaken in connection with the marketing of the Shares and Warrants; (j) all other costs and expenses incident to the performance of the Company’s obligations hereunder which are not otherwise specifically provided for in this Section 8; and (k) all reasonable and documented out-of-pocket costs of the Underwriters (including, without limitation, fees and disbursements of counsel) in connection with the performance of the Underwriters’ obligations hereunder which are not otherwise specifically provided for in this Section 8. Notwithstanding the foregoing, in no event shall the Company be obligated to reimburse the Underwriters pursuant to this Section 8 in an amount in excess of \$125,000 in the aggregate without the Company’s prior written consent.

**9.** The obligations of the Underwriters hereunder, as to the Shares and the Warrants to be delivered at the Time of Delivery shall be subject, in the Underwriters’ discretion, to the condition that all representations and warranties and other statements of the Company herein are, at and as of the Time of Delivery, true and correct in all material respects (except for those representations and warranties that are qualified by materiality, in which case such representations and warranties shall be true and correct in all respects), the condition that the Company shall have performed all of its obligations hereunder theretofore to be performed, and the following additional conditions:

**(a)** If filing of the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, is required under the Securities Act or the Rules and Regulations, the Company shall have filed the Prospectus (or such amendment or supplement) or such Issuer Free Writing Prospectus with the Commission in the manner and within the time period so required by Rule 424(b) (without reliance on Rule 424(b)(8) or Rule 164(b)); the Registration Statement shall remain effective; no stop order suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereto shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; no stop order suspending or preventing the use of the Disclosure Package, the Prospectus or any Issuer Free Writing Prospectus shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to the Underwriters’ reasonable satisfaction;

**(b)** The Underwriters shall not have advised the Company that (i) the Registration Statement or any amendment thereof or supplement thereto contains an untrue

statement of a material fact which, in the opinion of the Underwriters, is material or omits to state a material fact which, in the opinion of the Underwriters, is required to be stated therein or necessary to make the statements therein not misleading; or (ii) the Disclosure Package or the Prospectus, or any amendment thereof or supplement thereto, or any Issuer Free Writing Prospectus contains an untrue statement of fact which, in the opinion of the Underwriters, is material, or omits to state a fact which, in the opinion of the Underwriters, is material and is required to be stated therein, or necessary to make the statements therein, in light of the circumstances under which they are made, not misleading;

(c) Cooley LLP, counsel for the Underwriters, shall have furnished to the Underwriters an opinion and written statement, dated the Time of Delivery, with respect to the Registration Statement, the Disclosure Package, the Prospectus and other related matters as the Underwriters reasonably may request, and such counsel shall have received such papers and information as they request to enable them to pass upon such matters;

(d) Goodwin Procter LLP, counsel for the Company, shall have furnished to the Underwriters an opinion and written statement, dated the Time of Delivery, in the form attached as **Exhibit B-1** hereto;

(e) Mintz Levin Cohn Ferris Glovsky & Popeo LLP, special intellectual property counsel for the Company, shall have furnished to the Underwriters an opinion and written statement, dated the Time of Delivery, in the form attached as **Exhibit C** hereto;

(f) The Shares and the Warrant Shares shall have been approved for listing on the Nasdaq Capital Market, subject only to official notice of issuance;

(g) On the date of this Agreement, at the Time of Delivery, PricewaterhouseCoopers LLP shall have furnished to the Underwriters a letter or letters, dated the respective dates of delivery thereof, in form and substance satisfactory to the Underwriters, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained or incorporated by reference in the Registration Statement, the Disclosure Package and the Prospectus;

(h) (i) Neither the Company nor any of its Subsidiaries shall have sustained since the date of the latest audited financial statements included in the Prospectus any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Prospectus; and (ii) since the respective dates as of which information is given in the Disclosure Package, the Company shall not have incurred any material liabilities or obligations, direct or contingent, entered into any material transactions or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; there shall not have been any change in the capital stock or short-term or long-term debt of the Company or any of its Subsidiaries; there shall not have been any issuance of options, warrants, convertible securities or other rights to purchase capital stock of the Company (in each case, other than as a result of the grant or exercise of stock options under an existing equity incentive plan of the Company); and there shall not have been any change, or any development

involving a prospective change, in or affecting the business, operations, assets, prospects, condition (financial or otherwise) or results of operations of the Company and its consolidated subsidiaries, otherwise than as set forth or contemplated in the Disclosure Package and the Prospectus, the effect of which, in any such case described in clause (i) or (ii), is in the judgment of the Representative so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares and the Warrants being delivered at the Time of Delivery on the terms and in the manner contemplated in the Disclosure Package and the Prospectus;

(i) The Underwriters shall not have received any unresolved objection from FINRA as to the fairness and reasonableness of the amount of compensation allowable or payable to the Underwriters in connection with the issuance and sale of the Shares and Warrants;

(j) The Company has obtained and delivered to the Underwriters executed copies of an agreement from the executive officers and directors of the Company listed on **Schedule IV** hereto, substantially to the effect set forth in **Exhibit A** hereto;

(k) The Company shall have complied with the provisions of Section 6(a) hereof with respect to the furnishing of prospectuses on the second New York Business Day following the date of this Agreement;

(l) The Company shall have furnished or caused to be furnished to the Underwriters at the Time of Delivery certificates of the chief executive officer and the principal financial officer of the Company satisfactory to the Underwriters as to the accuracy of the representations and warranties of the Company herein at and as of the Time of Delivery as to the performance by the Company of all of its respective obligations hereunder to be performed at or prior to the Time of Delivery and as to such other matters as the Underwriters may reasonably request, and the Company shall have furnished or caused to be furnished certificates as to the matters set forth in subsections (a) and (h) of this Section;

(m) The Underwriters shall have received at the Time of Delivery a certificate of the Secretary of the Company in form and substance satisfactory to the Representative;

(n) The Underwriters shall have received at the Time of Delivery a certificate of the principal financial and accounting officer of the Company in form and substance satisfactory to the Representative;

(o) At the Time of Delivery, counsel for the Underwriters shall have been furnished with such information, certificates and documents as it may reasonably require for the purpose of enabling it to pass upon the issuance and sale of the Shares and Warrants as contemplated herein and related proceedings, or to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained, or otherwise in connection with the offering of the Shares and Warrants contemplated hereby;

(p) Dykema Gossett PLLC, special local counsel for the Company, shall have furnished to the Underwriters an opinion, dated the Time of Delivery, in the form attached as **Exhibit B-2** hereto;



(q) The Company shall have furnished to the Underwriters such additional documents, certificates and evidence as the Underwriters may have reasonably requested.

All such opinions, certificates, letters and other documents mentioned above and elsewhere in this Agreement will be in compliance with the provisions hereof only if they are satisfactory in form and substance to the Underwriters and their counsel. The Company will furnish the Underwriters with such conformed copies of such opinions, certificates, letters and other documents as the Underwriters shall reasonably request.

10. (a) The Company will indemnify and hold harmless each Underwriter from and against any losses, claims, damages or liabilities, joint or several, to which such Underwriter may become subject, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the 430B Information and any other information deemed to be part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to the Rules and Regulations, if applicable, any Preliminary Prospectus, the Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or any materials or information provided to investors by, or at the instruction of, the Company in connection with the marketing or the offering of the Shares and Warrants (the "**Marketing Materials**"), including, without limitation, any roadshow or investor presentations made to investors by the Company (whether in person or electronically), or arise out of or are based upon the 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 each Underwriter for any legal or other expenses reasonably incurred by such Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred; *provided, however*, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, any Preliminary Prospectus, the Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus or any Marketing Materials, in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter through the Representative expressly for use therein; it being understood and agreed that the only such information furnished by or on behalf of any Underwriter through the Representative consists of the information described as such in Section 10(f); and will reimburse the Underwriters for any legal or other expenses reasonably incurred by the Underwriters in connection with investigating or defending any such action or claim as such expenses are incurred.

(b) Each Underwriter, severally and not jointly, will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, the Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to

the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, any Preliminary Prospectus, the Disclosure Package or the Prospectus, or any amendment or supplement thereto, or any Issuer Free Writing Prospectus, in reliance upon and in conformity with written information furnished to the Company by or on behalf of any Underwriter through the Representative expressly for use therein; it being understood and agreed that the only such information furnished by or on behalf of any Underwriter through the Representative consists of the information described as such in Section 10(f) and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending any such action or claim as such expenses are incurred.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve it from any liability which it may have to any indemnified party except to the extent that such indemnifying party has been materially prejudiced by such failure. In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim; and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 10 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Shares and Warrants. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law or if the indemnified party failed to give the notice required under subsection (c) above, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriters on the other in

connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares and Warrants underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this subsection (d) to contribute are several in proportion to their respective underwriting obligations and not joint.

**(e)** The obligations of the Company under this Section 10 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls any Underwriter within the meaning of the Securities Act; and the obligations of any Underwriter under this Section 10 shall be in addition to any liability which the respective Underwriters may otherwise have and shall extend, upon the same terms and conditions, to director of the Company (including any person who, with his or her consent, is named in the Registration Statement as about to become a director of the Company), to each officer of the Company who has signed the Registration Statement and to each person, if any, who controls the Company within the meaning of the Securities Act.

**(f)** The Underwriters confirm and the Company acknowledges that the public offering price, the names of the Underwriters in the Prospectus and the statements with respect to the public offering of the Shares and Warrants by the Underwriters set forth in the fifth, eighth and thirteenth paragraphs under the caption "Underwriting" in the Disclosure Package and the Prospectus are correct and constitute the only information concerning the Underwriters furnished in writing to the Company by or on behalf of any Underwriter through the Representative expressly for use in the Registration Statement, any Preliminary Prospectus, the Disclosure Package, the Prospectus, or any Issuer Free Writing Prospectus.

11. The Underwriters shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the Time of Delivery, if (a) the Company shall have failed, refused or been unable, at or prior to such closing date, to perform any agreement on its part to be performed hereunder; (b) any other condition of the Underwriters' obligations hereunder is not fulfilled; (c) trading on the New York Stock Exchange, the NASDAQ Global Select Market, the NASDAQ Global Market, the NASDAQ Capital Market, the NYSE Euronext or the NYSE Amex shall have been suspended or materially limited; (d) a suspension or material limitation in trading in the Company's securities on the NASDAQ Capital Market occurs; (e) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the New York Stock Exchange, the NASDAQ Global Select Market, the NASDAQ Global Market, the NASDAQ Capital Market, the NYSE Euronext or the NYSE Amex, by such exchange or by order of the Commission or any other Regulatory Body having jurisdiction; (f) a general moratorium on commercial banking activities declared by either Federal or New York State authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States; (g) there shall have occurred any outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war; or (h) the occurrence of any other calamity or crisis or any change in financial, political or economic conditions in the United States or elsewhere, if the effect of any such event specified in clause (g) or (h) in the judgment of the Representative makes it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares and Warrants being delivered at the Time of Delivery on the terms and in the manner contemplated in the Disclosure Package or the Prospectus. Any such termination shall be without liability of any party to any other party except that the provisions of Section 8 and Section 10 hereof shall at all times be effective and shall survive such termination. If the Underwriters elect to terminate this Agreement as provided in this Section 11, the Company shall be notified promptly by the Underwriters by telephone, confirmed by letter.

12. (a) If any Underwriter shall default in its obligation to purchase the Shares and Warrants which it has agreed to purchase hereunder at the Time of Delivery, the Representative may in its discretion arrange for the Representative or another party or other parties to purchase such Shares and Warrants on the terms contained herein. If within thirty-six hours after such default by any Underwriter the Representative does not arrange for the purchase of such Shares and Warrants, then the Company shall be entitled to a further period of thirty-six hours within which to procure another party or other parties satisfactory to the Representative to purchase such Shares and Warrants on such terms. In the event that, within the respective prescribed periods, the Representative notifies the Company that it has so arranged for the purchase of such Shares and Warrants, or the Company notifies the Representative that it has so arranged for the purchase of such Shares and Warrants, the Representative or the Company shall have the right to postpone the Time of Delivery for a period of not more than seven days, in order to effect whatever changes may thereby be made necessary in the Registration Statement, the Disclosure Package or the Prospectus, or in any other documents or arrangements, and the Company agrees to file promptly any amendments or supplements to the Registration Statement, the Disclosure Package or the Prospectus which in the Representative's opinion may thereby be made necessary. The term "**Underwriter**" as used in this Agreement shall include any person substituted under this Section with like effect as if such person had originally been a party to this Agreement with respect to such Shares and Warrants.

**(b)** If, after giving effect to any arrangements for the purchase of the Shares and the Warrants of a defaulting Underwriter or Underwriters by the Representative and the Company as provided in subsection (a) above, the aggregate number of such Shares and Warrants which remain unpurchased does not exceed 10% of the aggregate number of all the Shares and Warrants to be purchased at the Time of Delivery, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Shares and Warrants which such Underwriter agreed to purchase hereunder at the Time of Delivery and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Shares and Warrants which such Underwriter agreed to purchase hereunder) of the Shares and Warrants of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

**(c)** If, after giving effect to any arrangements for the purchase of the Shares and the Warrants of a defaulting Underwriter or Underwriters by the Representative and the Company as provided in subsection (a) above, the aggregate number of such Shares and Warrants which remains unpurchased exceeds 10% of the aggregate number of all of the Shares and Warrants to be purchased at the Time of Delivery, or if the Company shall not exercise the right described in subsection (b) above to require non-defaulting Underwriters to purchase Shares and Warrants of a defaulting Underwriter or Underwriters, then this Agreement shall thereupon terminate, without liability on the part of any non-defaulting Underwriter or the Company, except for the expenses to be borne by the Company and the Underwriters as provided in Section 8 hereof and the indemnity and contribution agreements in Section 10 hereof; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

**13.** The respective indemnities, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or any controlling person of any Underwriter, or the Company or any officer or director or controlling person of the Company, and shall survive delivery of and payment for the Shares and the Warrants.

**14.** If this Agreement shall be terminated pursuant to Section 12(c) hereof, the Company shall not then be under any liability to any Underwriter except as provided in Sections 10 and 14 hereof; but, except as otherwise provided in this Agreement, if for any other reason any Shares and Warrants are not delivered by or on behalf of the Company as provided herein, the Company will reimburse the Underwriters for all out-of-pocket expenses, including, without limitation, fees and disbursements of counsel, reasonably incurred by the Underwriters in making preparations for the purchase, sale and delivery of the Shares and the Warrants not so delivered, but the Company shall then be under no further liability to any Underwriter in respect of the Shares and the Warrants not so delivered, except as provided in Sections 10 and 14 hereof.

**15.** In all dealings hereunder, the Representative shall act on behalf of each of the Underwriters, and the parties hereto shall be entitled to act and rely upon any statement, request, notice or agreement on behalf of any Underwriter made or given by the Representative.

16. All statements, requests, notices and agreements hereunder shall be in writing, and if to the Underwriters shall be delivered or sent by mail, telex or facsimile transmission to the Representative as follows: Stifel, Nicolaus & Company, Incorporated, One Montgomery Street, Suite 3700, San Francisco, California 94104, Attention: General Counsel; and if to the Company shall be delivered or sent by mail, telex or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: Secretary. Any such statements, requests, notices or agreements shall take effect upon receipt thereof.

17. This Agreement shall be binding upon, and inure solely to the benefit of, the Underwriters and the Company and, to the extent provided in Sections 10 and 13 hereof, the officers and directors of the Company and each person who controls the Company or any Underwriter, and their respective heirs, executors, administrators, successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of any of the Shares and the Warrants from any Underwriter shall be deemed a successor or assign by reason merely of such purchase.

18. Time shall be of the essence of this Agreement.

19. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

**20. This Agreement shall be governed by and construed in accordance with the laws of the State of New York.**

21. The parties hereby submit to the jurisdiction of and venue in the federal courts located in the City of New York, New York in connection with any dispute related to this Agreement, any transaction contemplated hereby, or any other matter contemplated hereby.

22. This Agreement may be executed by any one or more of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument.

23. Notwithstanding anything herein to the contrary, the Company is authorized to disclose to any persons the U.S. federal and state income tax treatment and tax structure of the potential transaction contemplated by this Agreement and all materials of any kind (including, without limitation, tax opinions and other tax analyses) provided to the Company relating to that treatment and structure, without the Underwriters imposing any limitation of any kind. However, any information relating to the tax treatment and tax structure shall remain confidential (and the foregoing sentence shall not apply) to the extent necessary to enable any person to comply with securities laws. For this purpose, "tax structure" is limited to any facts that may be relevant to that treatment.

24. This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriters, or any of them, with respect to the subject matter hereof.

25. The Company and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

*Signature page follows*

If the foregoing is in accordance with your understanding, please sign and return to us one for the Company plus one for counsel of any counterparts hereof, and upon the acceptance hereof by the Underwriters, this letter and such acceptance hereof shall constitute a binding agreement between the Underwriters and the Company.

Very truly yours,

**AASTROM BIOSCIENCES, INC.**

By: /s/ Scott Durbin

Name: Scott Durbin

Title: CFO

Accepted as of the date hereof at San Francisco, California

**STIFEL, NICOLAUS & COMPANY, INCORPORATED**

By: /s/ Seth Rubin

Name: Seth Rubin

Title: Managing Director

For itself and on behalf of each of the Underwriters

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**SCHEDULE I  
UNDERWRITERS**

<u>Underwriters</u>	<u>Total Number of Shares to be Purchased</u>	<u>Total Number of Warrants to be Purchased</u>
Stifel, Nicolaus & Company, Incorporated	6,446,281	6,446,281
Needham & Company, LLC	2,727,273	2,727,273
Roth Capital Partners	826,446	826,446
Total	10,000,000	10,000,000

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**SCHEDULE II**  
**ISSUER FREE WRITING PROSPECTUSES**

None.

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**SCHEDULE III  
PRICING INFORMATION**

Public Offering Price Per Unit: \$2.25  
Number of Shares Offered: 10,000,000  
Number of Warrants Offered: 10,000,000  
Underwriting Discount: 6.05%  
Warrant Coverage: 100%  
Estimated Offering Expenses (before discounts and commissions): \$640,000

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**SCHEDULE IV**  
**EXECUTIVE OFFICERS AND DIRECTORS EXECUTING LOCKUP AGREEMENTS**

Ronald Cresswell  
Ronnda L. Bartel Ph.D.  
Scott Durbin  
Timothy M. Mayleben  
Alan L. Rubino  
Nelson M. Sims  
Harold C. Urschel, Jr.  
Sharon Watling, PharmD  
Robert L. Zerbe

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**EXHIBIT A**  
**FORM OF LOCKUP AGREEMENT**

December \_\_, 2010

Stifel, Nicolaus & Company, Incorporated  
As Representative of the Several Underwriters  
One Montgomery Street  
Suite 3700  
San Francisco, California 94104

Re: Offering of Common Stock and Warrants of Aastrom Biosciences, Inc.

Ladies and Gentlemen:

The undersigned understands that you, as representative of the underwriters (the "**Underwriters**"), propose to enter into an Underwriting Agreement with Aastrom Biosciences, Inc., a Michigan corporation (the "**Company**"), providing for an offering of shares (the "**Shares**") of common stock, no par value per share, of the Company (the "**Common Stock**"), and warrants to purchase shares of Common Stock (the "**Warrants**"), pursuant to a Registration Statement on Form S-3 filed with the Securities and Exchange Commission (the "**SEC**").

In consideration of the agreement by the Underwriters to offer and sell the Shares and Warrants, and of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned agrees that, during the period specified in the following paragraph (the "**Lock-Up Period**"), the undersigned will not offer, sell, contract to sell, pledge (except a pledge for the benefit of the Company pursuant to an agreement entered or to be entered into between the Company and the undersigned), grant any option to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock of the Company, or any options or warrants to purchase any shares of Common Stock of the Company, or any securities convertible into, exchangeable for or that represent the right to receive shares of Common Stock of the Company, whether now owned or hereafter acquired, owned directly by the undersigned (including holding as a custodian) or with respect to which the undersigned has beneficial ownership within the rules and regulations of the SEC (collectively the "**Undersigned's Shares**"). The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned's Shares even if such Undersigned's Shares would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned's Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such Undersigned's Shares (regardless of whether any of the transactions described herein is to be settled by delivery of Common Stock of the Company, or such other securities, in cash or otherwise). Further, the undersigned agrees not to make any demand for, or exercise any right with respect to, the registration of any shares of Common Stock of the Company or securities

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convertible into or exercisable or exchangeable for Common Stock of the Company during the Lock-Up Period.

The initial Lock-Up Period will commence on the date of this Lock-Up Agreement and continue for 90 days after the offering date set forth on the final prospectus used to sell the Shares and Warrants (the “*Offering Date*”) pursuant to the Underwriting Agreement; *provided, however*, that if (1) during the last 17 days of the initial Lock-Up Period, the Company releases earnings results or announces material news or a material event or (2) prior to the expiration of the initial Lock-Up Period, the Company announces that it will release earnings results during the 15-day period following the last day of the initial Lock-Up Period, then in each case the Lock-Up Period will be automatically extended until the expiration of the 18-day period beginning on the date of release of the earnings results or the announcement of the material news or material event, as applicable, unless Stifel, Nicolaus & Company, Incorporated waives, in writing, such extension.

The undersigned hereby acknowledges that the Company has agreed in the Underwriting Agreement to provide written notice of any event that would result in an extension of the Lock-Up Period pursuant to the previous paragraph to the undersigned and agrees that any such notice properly delivered will be deemed to have been given to, and received by, the undersigned. The undersigned hereby further agrees that, prior to engaging in any transaction or taking any other action that is subject to the terms of this Lock-Up Agreement during the period from the date of this Lock-Up Agreement to and including the 34th day following the expiration of the initial Lock-Up Period, it will give notice thereof to the Company and will not consummate such transaction or take any such action unless it has received written confirmation from the Company that the Lock-Up Period (as such may have been extended pursuant to the previous paragraph) has expired.

Notwithstanding the foregoing, the undersigned may transfer the Undersigned’s Shares (i) as a *bona fide* gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein, (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, or (iii) with the prior written consent of Stifel, Nicolaus & Company, Incorporated. For purposes of this Lock-Up Agreement, “immediate family” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin. The undersigned now has, and, except as contemplated by clause (i), (ii), or (iii) above, for the duration of this Lock-Up Agreement will have, good and marketable title to the Undersigned’s Shares, free and clear of all liens, encumbrances and claims whatsoever. The undersigned agrees and consents to the entry of stop transfer instructions with the Company’s transfer agent and registrar against the transfer of the Undersigned’s Shares except in compliance with the foregoing restrictions.

The undersigned understands that the Company and the Underwriters are relying upon this Lock-Up Agreement in proceeding toward consummation of the offering. The undersigned hereby represents and warrants that it has full power and authority to enter into this Lock-Up Agreement and that upon request, the undersigned will execute any additional documents reasonably necessary or desirable in connection with the enforcement hereof. The undersigned further understands that this Lock-Up Agreement is irrevocable and shall be binding upon the undersigned’s heirs, legal representatives, successors, and assigns.

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This Lock-Up Agreement shall lapse and become null and void upon written notice from the Company to the Underwriters that the Company does not intend to proceed with the offering or wishes to terminate the engagement of the Underwriters as underwriters of the offering.

This Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof.

Very truly yours,

\_\_\_\_\_  
Name of Security Holder (*Print exact name*)

By: \_\_\_\_\_  
Signature

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**EXHIBIT B-1**  
**FORM OF OPINION OF COMPANY COUNSEL**

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**EXHIBIT B-2**  
**FORM OF OPINION OF SPECIAL COMPANY COUNSEL**

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**EXHIBIT C**  
**FORM OF OPINION OF INTELLECTUAL PROPERTY COUNSEL**

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**EXHIBIT D**  
**FORM OF WARRANT**

## WARRANT AGREEMENT

THIS WARRANT AGREEMENT (this "Agreement"), dated as of December 15, 2010, is entered into by and between Aastrom Biosciences, Inc., a Michigan corporation (the "Company"), and Continental Stock Transfer & Trust Company, a New York corporation (the "Warrant Agent").

WHEREAS, the Company is engaged in a public offering (the "Public Offering") of units (the "Units") and, in connection therewith, has determined to issue and deliver up to 10,000,000 Warrants (the "Warrants"), subject to adjustment as provided herein, to the public investors, each of such Warrants evidencing the right of the holder thereof to purchase one share of the Company's common stock, no par value (the "Common Stock");

WHEREAS, the Company has filed with the Securities and Exchange Commission a Registration Statement on Form S-3, No. 333-170581 (the "Registration Statement"), for the registration, under the Securities Act of 1933, as amended (the "Act"), of, among other securities, the Warrants and the Common Stock issuable upon exercise of the Warrants (the "Warrant Shares");

WHEREAS, the Company desires the Warrant Agent to act on behalf of the Company, and the Warrant Agent is willing to so act, in connection with the issuance, registration, transfer, exchange, redemption and exercise of the Warrants;

WHEREAS, the Company desires to provide for the form and provisions of the Warrants, the terms upon which they shall be issued and exercised, and the respective rights, limitation of rights, and immunities of the Company, the Warrant Agent, and the holders of the Warrants; and

WHEREAS, all acts and things have been done and performed that are necessary to make the Warrants, when executed on behalf of the Company and countersigned by or on behalf of the Warrant Agent, as provided herein, the valid, binding and legal obligations of the Company, and to authorize the execution and delivery of this Agreement.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, the parties hereto agree as follows:

1. Appointment of Warrant Agent. The Company hereby appoints the Warrant Agent to act as agent for the Company for the Warrants, and the Warrant Agent hereby accepts such appointment and agrees to perform the same in accordance with the terms and conditions set forth in this Agreement.

2. Warrants.

2.1 Form of Warrant. Each Warrant shall be (a) issued in registered form only, (b) in substantially the forms of Exhibit A, hereto, the provisions of which are incorporated herein, and (c) signed by, or bear the facsimile signature of, the President and the Secretary of the Company. In the event the person whose facsimile signature has been placed upon any Warrant shall have

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ceased to serve in the capacity in which such person signed the Warrant before such Warrant is issued, it may be issued with the same effect as if he or she had not ceased to be such at the date of issuance.

2.2 Effect of Countersignature. Unless and until countersigned by the Warrant Agent pursuant to this Agreement, a Warrant shall be invalid and of no effect and may not be exercised by the holder thereof.

### 2.3 Registration.

2.3.1 Warrant Register. The Warrant Agent shall maintain books (the "Warrant Register") for the registration of the original issuance and transfers of the Warrants. Upon the initial issuance of the Warrants, the Warrant Agent shall issue and register the Warrants in the names of the respective holders thereof in such denominations and otherwise in accordance with instructions delivered to the Warrant Agent by the Company.

2.3.2 Registered Holder. Prior to due presentment for registration of transfer of any Warrant, the Company and the Warrant Agent may deem and treat the person in whose name such Warrant shall be registered upon the Warrant Register (the "registered holder"), as the absolute owner of such Warrant and of each Warrant represented thereby (notwithstanding any notation of ownership or other writing on the warrant certificate made by anyone other than the Company or the Warrant Agent), for the purpose of any exercise thereof, and for all other purposes, and neither the Company nor the Warrant Agent shall be affected by any notice to the contrary.

## 3. Terms and Exercise of Warrants.

3.1 Exercise Price. Each Warrant shall, when countersigned by the Warrant Agent, entitle the registered holder thereof, subject to the provisions of such Warrant and of this Warrant Agreement, to purchase from the Company the number of shares of Common Stock stated therein, at the price of \$3.22 per whole share (the "Exercise Price"), subject to the adjustments provided in Section 4 hereof .

3.2 Duration of Warrants. A Warrant may be exercised only during the period ("Exercise Period") commencing on the date of issuance and terminating at 5:30 p.m., New York City time five years from the start of the Exercise Period (the "Expiration Date"). Each Warrant not exercised on or before the Expiration Date shall become void, and all rights thereunder and all rights in respect thereof under this Agreement shall cease at the close of business on the Expiration Date.

### 3.3 Exercise of Warrants.

(a) Methods of Exercise. A registered holder may exercise the Warrants through a cash exercise (a "Cash Exercise") or through a cashless exercise (a "Cashless Exercise") pursuant to Section 3.3(b) below. This Warrant may be exercised by the registered holder, in whole or in part, by delivery (whether via facsimile or otherwise) to the Company of

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the Form of Election to Purchase, in the form attached as Exhibit A to the Warrant (the "Exercise Notice"), indicating the registered holder's election to exercise this Warrant. Within one (1) Trading Day following an exercise of the Warrant as aforesaid, the registered holder shall deliver payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant was so exercised (the "Aggregate Exercise Price") in cash or via wire transfer of immediately available funds if the Holder did not notify the Company in such Exercise Notice that such exercise was made pursuant to a Cashless Exercise. The registered holder shall not be required to deliver the original of this Warrant in order to effect an exercise hereunder. Execution and delivery of an Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original of the Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares. Execution and delivery of an Exercise Notice for all of the then-remaining Warrant Shares shall have the same effect as cancellation of the original of this Warrant after delivery of the Warrant Shares in accordance with the terms hereof. On or before the second (2nd) Trading Day following the date on which the Company has received an Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation of receipt of such Exercise Notice, in the form attached to the Warrant as Exhibit B, to the registered holder and the Company's transfer agent (the "Transfer Agent"). On or before the third (3rd) Trading Day following the date on which the Company has received such Exercise Notice, the Company shall (X) provided that the Transfer Agent is participating in The Depository Trust Company ("DTC") Fast Automated Securities Transfer Program, upon the request of the registered holder, credit such aggregate number of shares of Common Stock to which the registered holder is entitled pursuant to such exercise to the registered holder's or its designee's balance account with DTC through its Deposit/ Withdrawal at Custodian system, or (Y) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program, issue and deliver to the registered holder or, at the registered holder's instruction pursuant to the Exercise Notice, the registered holder's agent or designee, in each case, sent by reputable overnight courier to the address as specified in the applicable Exercise Notice, a certificate, registered in the Company's share register in the name of the Holder or its designee (as indicated in the applicable Exercise Notice), for the number of shares of Common Stock to which the registered holder is entitled pursuant to such exercise. Upon delivery of an Exercise Notice, the registered holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the registered holder's DTC account or the date of delivery of the certificates evidencing such Warrant Shares (as the case may be). The Company shall pay any and all taxes and fees which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant.

(b) Cashless Exercise. The registered holder may effect a Cashless Exercise by noting on the Form of Election to Purchase that the registered holder wishes to effect a Cashless Exercise, upon which the Company shall issue, or cause to be issued, to the registered holder the number of Warrant Shares determined as follows:

$$X = Y \times [(A-B)/C]$$

where:

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X = the number of Warrant Shares to be issued to the registered holder;

Y = the number of Warrant Shares with respect to which the Warrant Certificates are being exercised;

A = the average of the Closing Sale Prices of the shares of Common stock (as reported by Bloomberg Financial Markets) for the five (5) consecutive trading days ending on the date immediately preceding the Date of Exercise;

B = the Exercise Price; and

C = the Closing Sale Price of the shares of Common stock (as reported by Bloomberg Financial Markets) on the Date of Exercise.

“Closing Sale Price” means, for any security as of any date, the last trade price for such security on the principal securities exchange or trading market for such security, as reported by Bloomberg Financial Markets, or, if such exchange or trading market begins to operate on an extended hours basis and does not designate the last trade price, then the last trade price of such security prior to 4:00 P.M., New York City time, as reported by Bloomberg Financial Markets, or if the foregoing do not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg Financial Markets, or, if no last trade price is reported for such security by Bloomberg Financial Markets, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the “pink sheets” by Pink Sheets LLC. If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Company and the registered holder. If the Company and the registered holder are unable to agree upon the fair market value of such security, then the Board of Directors of the Company shall use its good faith judgment to determine the fair market value. The Board of Directors’ determination shall be binding upon all parties absent demonstrable error. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

(c) Company’s Failure to Timely Deliver Securities. If the Company shall fail for any reason or for no reason to issue or cause the Warrant Agent to issue to the registered holder within three (3) Business Days of exercise in compliance with the terms of this Section 3,

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a certificate for the number of shares of Common Stock to which the registered holder is entitled and register such shares of Common Stock on the Company's share register or to credit the registered holder's balance account with DTC for such number of shares of Common Stock to which the registered holder is entitled upon the registered holder's exercise of its Warrant Certificate, and if on or after such Trading Day the registered holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the registered holder of shares of Common Stock issuable upon such exercise that the registered holder anticipated receiving from the Company (a "Buy-In"), then the Company shall, within three (3) Business Days after the registered holder's request and in the registered holder's discretion, either (i) pay cash to the registered holder in an amount equal to the registered holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased (the "Buy-In Price"), at which point the Company's obligation to deliver such certificate (and to issue such Warrant Shares or credit such registered holder's balance account at DTC) shall terminate, or (ii) promptly honor its obligation to deliver to the registered holder a certificate or certificates representing such Warrant Shares or credit such registered holder's balance account at DTC and pay cash to the registered holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of shares of Common Stock, times (B) the Weighted Average Price on the date of exercise. "Weighted Average Price" means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg through its "Volume at Price" function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York City time, and ending at 4:00:00 p.m., New York City time, as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported in the "pink sheets" by Pink Sheets LLC (formerly the National Quotation Bureau, Inc.). If the Weighted Average Price cannot be calculated for such security on such date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 9.10 with the term "Weighted Average Price" being substituted for the term "Exercise Price." All such determinations shall be appropriately adjusted for any share dividend, share split or other similar transaction during such period.

(d) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the number of Warrant Shares to be issued pursuant to the terms hereof, the Company shall promptly issue to the registered holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 9.10.

3.4 Valid Issuance. All shares of Common Stock issued upon the proper exercise of a Warrant in conformity with this Agreement shall be validly issued, fully paid and nonassessable.

3.5 Date of Issuance. Each person in whose name any such certificate for shares of Common Stock is issued shall for all purposes be deemed to have become the holder of record of

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such shares on the date on which the Exercise Notice is delivered to the Company, irrespective of the date of delivery of such certificate, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.

#### 4. Adjustments.

##### 4.1 Stock Dividends and Splits.

(a) If the Company, (i) pays a stock dividend on its Common Stock or otherwise makes a distribution on any class of capital stock that is payable in shares of Common Stock, (ii) subdivides its outstanding shares of Common Stock into a larger number of shares, (iii) combines its outstanding shares of Common Stock into a smaller number of shares or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each such case the Exercise Price shall be multiplied by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately before such event and the denominator of which shall be the number of shares of Common Stock outstanding immediately after such event and the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii), (iii) or (iv) of this paragraph shall become effective immediately after the effective date of such subdivision or combination or reclassification.

(b) In addition to any adjustments pursuant to Section 4.1(a) above, if at any time the Company grants, issues or sells any warrants or other rights to subscribe for or to purchase, or any options for the purchase of, Common Stock or any stock or security convertible into or exchangeable for Common Stock (such warrants, rights or options being called "Options", and such convertible or exchangeable stock or securities being called "Convertible Securities") or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the registered holder will be entitled to acquire, upon the same terms as such Purchase Rights were acquired by such record holders of such class of Common Stock, the aggregate Purchase Rights which the registered holder could have acquired if the registered holder had held the number of shares of Common Stock acquirable upon complete exercise of the Warrant (without regard to any limitations on exercise hereof, including without limitation, the Maximum Percentage) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the registered holder's right to participate in any such Purchase Right would result in the registered holder exceeding the Maximum Percentage, then the registered holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase

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Right to such extent shall be held in abeyance for the registered holder until such time, if ever, as its right thereto would not result in the registered holder exceeding the Maximum Percentage).

4.2 Pro Rata Distributions. If the Company, at any time while the Warrants are outstanding, distributes to all holders of Common Stock for no consideration (i) evidences of its indebtedness, (ii) any security (other than a distribution of Common Stock covered by the preceding Section) or (iii) rights, options or warrants to subscribe for or purchase any security, or (iv) any other asset (including cash or cash dividends) (in each case, a "Distribution"), then, in each such case, the registered holder shall be entitled to participate in such Distribution to the same extent that the registered holder would have participated therein if the registered holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Maximum Percentage (as defined below)) immediately before the date on which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the registered holder's right to participate in any such Distributions would result in the registered holder exceeding the Maximum Percentage, then the registered holder shall not be entitled to participate in such Distribution to such extent (or the beneficial ownership of any such shares of Common Stock as a result of such Distribution to such extent) and such Distribution to such extent shall be held in abeyance for the benefit of the registered holder until such time, if ever, as its right thereto would not result in the registered holder exceeding the Maximum Percentage).

4.3 Fundamental Transactions. If (i) the Company effects any merger or consolidation of the Company with or into another Person, in which the Company is not the survivor or the stockholders of the Company immediately prior to such merger or consolidation do not own, directly or indirectly, at least 50.1% of the voting securities of the surviving entity, (ii) the Company effects any sale, lease, assignment, transfer, conveyance or other distribution of all or substantially all of its assets to a third party, in each case, in one or a series of related transactions, (iii) any direct or indirect purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which at least holders of a majority of the outstanding shares of Common Stock are permitted to tender or exchange their shares for other securities, cash or property, (iv) the Company, directly or indirectly, in one or more related transactions, effects any reorganization, recapitalization or reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 4.1 above), or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another person whereby such other person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other person or other persons making or party to, or associated or affiliated with the other persons making or party to, such stock or share purchase agreement or other business combination) (in any such case, a "Fundamental Transaction"), then the registered holder shall have the right thereafter to receive, upon exercise of the Warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive

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upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of Warrant Shares then issuable upon exercise in full of the Warrant without regard to any limitations on exercise contained in the Warrant (the "Alternate Consideration"). The Company shall not effect any such Fundamental Transaction unless prior to or simultaneously with the consummation thereof, any successor to the Company, surviving entity or the corporation purchasing or otherwise acquiring such assets or other appropriate corporation or Person shall assume the Warrant and the obligation to deliver to the registered holder, such Alternate Consideration as, in accordance with the foregoing provisions, the registered holder may be entitled to receive, and the other obligations under the Warrant. Notwithstanding the foregoing at the request of the registered holder delivered at any time commencing on the earlier to occur of the public disclosure of any Fundamental Transaction or the consummation of any Fundamental Transaction through the date that is ninety (90) days after the later to occur of (i) the public disclosure of such Fundamental Transaction, (ii) the consummation of such Fundamental Transaction and (iii) the registered holder becoming aware of such Fundamental Transaction if such Fundamental Transaction was not publicly disclosed, the Company or the Successor Entity (as the case may be) shall purchase the Warrant from the registered holder on the date of such request by paying to the registered holder cash in an amount equal to the Black Scholes Value (as defined below). For purposes hereof, "Black Scholes Value" means the value of the unexercised portion of the Warrant remaining on the date of the registered holder's request pursuant, which value is calculated using the Black Scholes Option Pricing Model obtained from the "OV" function on Bloomberg utilizing (i) an underlying price per share equal to the greater of (1) the highest Closing Sale Price of the Common Stock during the period beginning on the Trading Day immediately preceding the earlier to occur of the public disclosure or consummation of the applicable Fundamental Transaction and ending on the Trading Day of the registered holder's request pursuant to this Section and (2) the sum of the price per share being offered in cash in the applicable Fundamental Transaction (if any) plus the value of the non-cash consideration being offered in the applicable Fundamental Transaction (if any), (ii) a strike price equal to the Exercise Price in effect on the date of the Holder's request pursuant to this Section, (iii) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the greater of (1) the remaining term of the Warrant as of the date of the Holder's request pursuant to this Section and (2) the remaining term of this Warrant as of the date of consummation of the applicable Fundamental Transaction or as of the date of the registered holder's request pursuant to this Section if such request is prior to the date of the consummation of the applicable Fundamental Transaction and (iv) an expected volatility equal to the greater of 100% and the 30 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the earlier to occur of the public disclosure or consummation of the applicable Fundamental Transaction.

4.4 Subsequent Equity Sales. (i) Except as provided in Section 4.4(iii) below, if and whenever the Company shall issue or sell, or is, in accordance with Section 4.4(ii)(1) through 4.4(ii)(5) below, deemed to have issued or sold, any shares of Common Stock or Common Stock Equivalents entitling any Person to acquire shares of Common Stock for no consideration or for a consideration per share (the "New Issuance Price") less than the Exercise Price in effect immediately prior to the time of such issue or sale (the "Applicable Price"), then and in each such case (a "Trigger Issuance") the then-existing Exercise Price shall be reduced as of the close of business on the effective date of the Trigger Issuance to the New Issuance Price.

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As used in this Warrant, the term “*Common Stock Equivalents*” means any securities of the Company or any Subsidiary which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock or other securities that entitle the holder to receive, directly or indirectly, Common Stock.

(ii) For purposes of this Section 4.4, the following Sections 4.4(ii)(1) to 4.4(ii)(5) shall also be applicable:

(1) Issuance of Options. If the Company in any manner grants or sells any Options and the lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Option or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the granting or sale of such Option for such price per share. For purposes of this Section 4.4(ii)(1), the “lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Options or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option” shall be equal to (1) the lower of (x) the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to any one share of Common Stock upon the granting or sale of such Option, upon exercise of such Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option and (y) the lowest exercise price set forth in such Option for which one share of Common Stock is issuable upon the exercise of any such Options or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option minus (2) the sum of all amounts paid or payable to the holder of such Option (or any other Person) upon the granting or sale of such Option, upon exercise of such Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option plus the value of any other consideration received or receivable by, or benefit conferred on, the holder of such Option (or any other Person). Except as contemplated below, no further adjustment of the Exercise Price shall be made upon the actual issuance of such shares of Common Stock or of such Convertible Securities upon the exercise of such Options or upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities.

(2) Issuance of Convertible Securities. If the Company in any manner issues or sells any Convertible Securities and the lowest price per share for which one share of Common Stock is issuable upon the conversion, exercise or exchange thereof is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the issuance or sale of such Convertible Securities for such price per share. For the purposes of this Section 4.4(ii), the “lowest price per share for which one share of Common Stock is issuable upon the conversion, exercise or exchange thereof” shall be equal to (1) the lower of (x) the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to one share of Common Stock upon the issuance or sale of the Convertible Security and upon conversion, exercise or exchange of such Convertible Security and (y) the lowest conversion price set forth

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in such Convertible Security for which one share of Common Stock is issuable upon conversion, exercise or exchange thereof minus (2) the sum of all amounts paid or payable to the holder of such Convertible Security (or any other Person) upon the issuance or sale of such Convertible Security plus the value of any other consideration received or receivable by, or benefit conferred on, the holder of such Convertible Security (or any other Person). Except as contemplated below, no further adjustment of the Exercise Price shall be made upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities, and if any such issue or sale of such Convertible Securities is made upon exercise of any Options for which adjustment of this Warrant has been or is to be made pursuant to other provisions of this Section 4.4(ii)(2), except as contemplated below, no further adjustment of the Exercise Price shall be made by reason of such issue or sale.

(3) Change in Option Price or Rate of Conversion. If the purchase or exercise price provided for in any Options, the additional consideration, if any, payable upon the issue, conversion, exercise or exchange of any Convertible Securities, or the rate at which any Convertible Securities are convertible into or exercisable or exchangeable for shares of Common Stock increases or decreases at any time, the Exercise Price in effect at the time of such increase or decrease shall be adjusted to the Exercise Price which would have been in effect at such time had such Options or Convertible Securities provided for such increased or decreased purchase price, additional consideration or increased or decreased conversion rate, as the case may be, at the time initially granted, issued or sold. For purposes of this Section 4.4(ii)(3), if the terms of any Option or Convertible Security that was outstanding as of the date of issuance of this Warrant are increased or decreased in the manner described in the immediately preceding sentence, then such Option or Convertible Security and the shares of Common Stock deemed issuable upon exercise, conversion or exchange thereof shall be deemed to have been issued as of the date of such increase or decrease. No adjustment pursuant to this Section 4.4(ii)(3) shall be made if such adjustment would result in an increase of the Exercise Price then in effect.

(4) Calculation of Consideration Received. If any Option or Convertible Security or Adjustment Right is issued in connection with the issuance or sale or deemed issuance or sale of any other securities of the Company, together comprising one integrated transaction, (x) such Option or Convertible Security (as applicable) or Adjustment Right (as applicable) will be deemed to have been issued for consideration equal to the Black Scholes Consideration Value thereof and (y) the other securities issued or sold or deemed to have been issued or sold in such integrated transaction shall be deemed to have been issued for consideration equal to the difference of (I) the aggregate consideration received or receivable by the Company minus (II) the Black Scholes Consideration Value of each such Option or Convertible Security (as applicable) or Adjustment Right (as applicable). If any shares of Common Stock, Options or Convertible Securities are issued or sold or deemed to have been issued or sold for cash, the consideration received therefor will be deemed to be the net amount of consideration received by the Company therefor. If any shares of Common Stock, Options or Convertible Securities are issued or sold for a consideration other than cash, the amount of such consideration received by the Company will be the fair value of such consideration, except where such consideration consists of publicly traded securities, in which case the amount of consideration received by the Company for such securities will be the arithmetic average of the VWAPs of such security for each of the five (5) Trading Days immediately preceding the date of

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receipt. If any shares of Common Stock, Options or Convertible Securities are issued to the owners of the non-surviving entity in connection with any merger in which the Company is the surviving entity, the amount of consideration therefor will be deemed to be the fair value of such portion of the net assets and business of the non-surviving entity as is attributable to such shares of Common Stock, Options or Convertible Securities, as the case may be. The fair value of any consideration other than cash or publicly traded securities will be determined jointly by the Company and the Holder. If such parties are unable to reach agreement within ten (10) days after the occurrence of an event requiring valuation (the "Valuation Event"), the fair value of such consideration will be determined within five (5) Trading Days after the tenth (10th) day following such Valuation Event by an independent, reputable appraiser jointly selected by the Company and the Holder. The determination of such appraiser shall be final and binding upon all parties absent manifest error and the fees and expenses of such appraiser shall be borne by the Company. For purposes hereof, "Black Scholes Consideration Value" means the value of the applicable Option or Convertible Security (as the case may be) as of the date of issuance thereof calculated using the Black Scholes Option Pricing Model obtained from the "OV" function on Bloomberg utilizing (i) an underlying price per share equal to the Closing Sale Price of the Common Stock on the Trading Day immediately preceding the public announcement of the execution of definitive documents with respect to the issuance of such Option or Convertible Security (as the case may be), (ii) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of such Option or Convertible Security (as the case may be) as of the date of issuance of such Option or Convertible Security (as the case may be) and (iii) an expected volatility equal to the greater of 100% and the 30 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the date of issuance of such Option or Convertible Security (as the case may be).

(5) Record Date. If the Company takes a record of the holders of shares of Common Stock for the purpose of entitling them (A) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (B) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the shares of Common Stock deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase (as the case may be).

(iii) Notwithstanding the foregoing, no adjustment will be made under this Section 4.4 in respect of: (i) the issuance of securities upon the exercise or conversion of any Common Stock or Common Stock Equivalents issued by the Company on or prior to the date hereof provided that the terms of such Common Stock or Common Stock Equivalents are not amended, modified or changed on or after the date hereof, (ii) the grant of options, warrants, Common Stock or other Common Stock Equivalents (but not including any amendments to such instruments) under any duly authorized Company stock option, restricted stock plan or stock purchase plan whether now existing or hereafter approved by the Company and its stockholders in the future, and the issuance of Common Stock in respect thereof, or as an inducement grant to new employees, consultants, directors or officers, (iii) the issuance of securities in connection with a Strategic Transaction, or (iv) the issuance of securities in a transaction described in Section 4.1 or 4.2

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(collectively, “Excluded Issuances”). For purposes of this paragraph, a “Strategic Transaction” means a transaction or relationship in which (1) the Company issues shares of Common Stock to a Person (or a shareholder, partner, member or other owner thereof) that the Board of Directors of the Company determined in good faith is, itself or through its Subsidiaries, an operating company in a business synergistic with the business of the Company or is a commercial bank and (2) the Company expects to receive benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to a Person whose primary business is investing in securities.

4.5 Notices of Changes in Warrant. Upon every adjustment of the Exercise Price or the number of shares issuable upon exercise of a Warrant, the Company shall give written notice thereof to the Warrant Agent, which notice shall state the Exercise Price resulting from such adjustment and the increase or decrease, if any, in the number of shares purchasable at such price upon the exercise of a Warrant, setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Upon the occurrence of any event specified in Sections 4.1, 4.2, 4.3 and 4.4, then, in any such event, the Company shall give written notice to each Warrant holder, at the last address set forth for such holder in the Warrant Register, of the record date or the effective date of the event, and, upon written request, provide such holder with a copy of the notice provided to the Warrant Agent. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such event.

4.6 No Fractional Shares. Notwithstanding any provision contained in this Warrant Agreement to the contrary, the Company shall not issue fractional shares upon exercise of Warrants. If the holder of any Warrant would be entitled, upon the exercise of such Warrant, to receive a fractional interest in a share, the Company shall, upon such exercise, round down to the nearest whole number the number of shares of Common Stock to be issued to the Warrant holder and shall pay the holder in cash the fair market value (based on the Closing Sales Prices) for any such fractional shares.

#### 5. Transfer and Exchange of Warrants.

5.1 Registration of Transfer. The Warrant Agent shall register the transfer, from time to time, of any outstanding Warrant in the Warrant Register, upon surrender of such Warrant for transfer, properly endorsed with signatures properly guaranteed and accompanied by appropriate instructions for transfer. Upon any such transfer, a new Warrant representing an equal aggregate number of Warrants shall be issued and the old Warrant shall be cancelled by the Warrant Agent. The Warrants so cancelled shall be delivered by the Warrant Agent to the Company from time to time upon request.

5.2 Charges, Taxes and Expenses. No charges shall be made for any issuance and delivery of shares of Common Stock upon exercise of the Warrant for any issue or transfer tax, transfer agent fee or other incidental tax or expense in respect of the issuance of such shares, all of which taxes and expenses shall be paid by the Company; *provided, however*, that the Company shall not be required to pay any tax that may be payable in respect of any transfer involved in the registration of any Warrant Shares or the Warrants in a name other than that of the registered holder or an affiliate thereof. The registered holder shall be responsible for all

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other tax liability that may arise as a result of holding or transferring the Warrant or receiving Warrant Shares upon exercise hereof.

5.3 Warrant Execution and Countersignature. The Warrant Agent is hereby authorized to countersign and to deliver, in accordance with the terms of this Agreement, the Warrants required to be issued pursuant to the provisions of this Section 5, and the Company, whenever required by the Warrant Agent, will supply the Warrant Agent with Warrants duly executed on behalf of the Company for such purpose.

#### 6. Other Provisions Relating to Rights of Holders of Warrants.

6.1 No Rights as Stockholder. A Warrant does not entitle the registered holder thereof to any of the rights of a stockholder of the Company, including the right to receive dividends, or other distributions, exercise any preemptive rights to vote or to consent or to receive notice as stockholders in respect of the meetings of stockholders or the election of directors of the Company or any other matter.

6.2 Lost, Stolen, Mutilated, or Destroyed Warrants. If a Warrant is mutilated, lost, stolen or destroyed, the Company and the Warrant Agent shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof, or in lieu of and substitution for the Warrant, a New Warrant, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction (in such case) and, in each case, a customary and reasonable indemnity or surety bond, if requested by the Company.

6.3 Reservation of Common Stock. The Company shall at all times reserve and keep available a number of its authorized but unissued shares of Common Stock that will be sufficient to permit the exercise in full of all outstanding Warrants issued pursuant to this Agreement.

#### 7. Concerning the Warrant Agent and Other Matters.

7.1 Payment of Taxes. The Company will from time to time promptly pay all taxes and charges that may be imposed upon the Company or the Warrant Agent in respect of the issuance or delivery of shares of Common Stock upon the exercise of Warrants, but the Company shall not be obligated to pay any transfer taxes in respect of the Warrants or such shares.

##### 7.2 Resignation, Consolidation, or Merger of Warrant Agent.

7.2.1 Appointment of Successor Warrant Agent. The Warrant Agent, or any successor to it hereafter appointed, may resign its duties and be discharged from all further duties and liabilities hereunder after giving sixty (60) days' notice in writing to the Company. If the office of the Warrant Agent becomes vacant by resignation or incapacity to act or otherwise, the Company shall appoint in writing a successor Warrant Agent in place of the Warrant Agent. If the Company shall fail to make such appointment within a period of 30 days after it has been notified in writing of such resignation or incapacity by the Warrant Agent or by the holder of the Warrant (who shall, with such notice, submit his, her or its Warrant for inspection by the

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Company), then the holder of any Warrant may apply to the Supreme Court of the State of New York for the County of New York for the appointment of a successor Warrant Agent at the Company's cost. Any successor Warrant Agent, whether appointed by the Company or by such court, shall be a corporation organized and existing under the laws of the State of New York, in good standing and having its principal office in the Borough of Manhattan, City and State of New York, and authorized under such laws to exercise corporate trust powers and subject to supervision or examination by federal or state authority. After appointment, any successor Warrant Agent shall be vested with all the authority, powers, rights, immunities, duties, and obligations of its predecessor Warrant Agent with like effect as if originally named as Warrant Agent hereunder, without any further act or deed; but if for any reason it becomes necessary or appropriate, the predecessor Warrant Agent shall execute and deliver, at the expense of the Company, an instrument transferring to such successor Warrant Agent all the authority, powers, and rights of such predecessor Warrant Agent hereunder; and upon request of any successor Warrant Agent the Company shall make, execute, acknowledge, and deliver any and all instruments in writing for more fully and effectually vesting in and confirming to such successor Warrant Agent all such authority, powers, rights, immunities, duties, and obligations.

7.2.2 Notice of Successor Warrant Agent. In the event a successor Warrant Agent shall be appointed, the Company shall give notice thereof to the predecessor Warrant Agent and the transfer agent for the Common Stock not later than the effective date of any such appointment.

7.2.3 Merger or Consolidation of Warrant Agent. Any corporation into which the Warrant Agent may be merged or with which it may be consolidated or any corporation resulting from any merger or consolidation to which the Warrant Agent shall be a party shall be the successor Warrant Agent under this Agreement without any further act.

#### 7.3 Fees and Expenses of Warrant Agent.

7.3.1 Remuneration. The Company agrees to pay the Warrant Agent reasonable remuneration for its services as such Warrant Agent hereunder and will reimburse the Warrant Agent upon demand for all expenditures that the Warrant Agent may reasonably incur in the execution of its duties hereunder.

7.3.2 Further Assurances. The Company agrees to perform, execute, acknowledge and deliver or cause to be performed, executed, acknowledged and delivered all such further and other acts, instruments and assurances as may reasonably be required by the Warrant Agent for the carrying out or performing of the provisions of this Agreement.

#### 7.4 Liability of Warrant Agent.

7.4.1 Reliance on Company Statement. Whenever in the performance of its duties under this Warrant Agreement the Warrant Agent shall deem it necessary or desirable that any fact or matter be proved or established by the Company prior to taking or suffering any action hereunder, such fact or matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established by a statement

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signed by the President or Chairman of the Board of the Company and delivered to the Warrant Agent. The Warrant Agent may rely upon such statement for any action taken or suffered in good faith by it pursuant to the provisions of this Agreement.

7.4.2 Indemnity. The Warrant Agent shall be liable hereunder only for its own gross negligence, willful misconduct or bad faith. The Company agrees to indemnify the Warrant Agent and save it harmless against any and all liabilities, including judgments, costs and reasonable counsel fees, for anything done or omitted by the Warrant Agent in the execution of this Agreement, except as a result of the Warrant Agent's gross negligence, willful misconduct or bad faith.

7.4.3 Exclusions. The Warrant Agent shall have no responsibility with respect to the validity of this Agreement or with respect to the validity or execution of any Warrant (except its countersignature thereof); nor shall it be responsible for any breach by the Company of any covenant or condition contained in this Agreement or in any Warrant; nor shall it be responsible to make any adjustments required under the provisions of Section 4 hereof or responsible for the manner, method or amount of any such adjustment or the ascertaining of the existence of facts that would require any such adjustment; nor shall it by any act hereunder be deemed to make any representation or warranty as to the authorization or reservation of any shares of Common Stock to be issued pursuant to this Agreement or any Warrant or as to whether any shares of Common Stock will when issued be valid and fully paid and nonassessable.

7.5 Acceptance of Agency. The Warrant Agent hereby accepts the agency established by this Agreement and agrees to perform the same upon the terms and conditions herein set forth and, among other things, shall account promptly to the Company with respect to Warrants exercised and concurrently account for, and pay to the Company, all moneys received by the Warrant Agent for the purchase of shares of Common Stock through the exercise of Warrants.

7.6 Waiver. The Warrant Agent hereby waives any and all right, title, interest or claim of any kind ("Claim") in or to any distribution of the Trust Account (as defined in that certain Investment Management Trust Agreement, dated as of the date hereof, by and between the Company and the Warrant Agent, as trustee thereunder), and hereby agrees not to seek recourse, reimbursement, payment or satisfaction for any Claim against the Trust Account for any reason whatsoever.

#### 8. Limitations on Exercise.

8.1 Notwithstanding anything to the contrary contained herein, the Warrant shall not be exercisable by the registered holder to the extent (but only to the extent) that the registered holder or any of its affiliates would beneficially own in excess of 4.99% (the "Maximum Percentage") of the Common Stock. To the extent the above limitation applies, the determination of whether the Warrant shall be exercisable (vis-à-vis other convertible, exercisable or exchangeable securities owned by the registered holder or any of its affiliates) and of which such securities shall be exercisable (as among all such securities owned by the registered holder) shall, subject to such Maximum Percentage limitation, be determined on the basis of the first

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submission to the Company for conversion, exercise or exchange (as the case may be). No prior inability to exercise the Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. For the purposes of this paragraph, beneficial ownership and all determinations and calculations (including, without limitation, with respect to calculations of percentage ownership) shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. The provisions of this paragraph shall be implemented in a manner otherwise than in strict conformity with the terms of this paragraph to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Maximum Percentage beneficial ownership limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such Maximum Percentage limitation. The limitations contained in this paragraph shall apply to a successor holder of the Warrant. The holders of Common Stock shall be third party beneficiaries of this paragraph and the Company may not waive this paragraph without the consent of holders of a majority of the outstanding shares of Common Stock. For any reason at any time, upon the written or oral request of the registered holder, the Company shall within one (1) Business Day confirm orally and in writing to the registered holder the number of shares of Common Stock then outstanding, including by virtue of any prior conversion or exercise of convertible or exercisable securities into Common Stock. By written notice to the Company, any registered holder may increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99% specified in such notice; provided that (i) any such increase will not be effective until the 61st day after such notice is delivered to the Company, and (ii) any such increase or decrease will apply only to the registered holder sending such notice and not to any other holder. It shall not be the responsibility of the Warrant Agent to monitor the limitations on exercises imposed by this Section 8.1.

#### 9. Miscellaneous Provisions.

9.1 Successors. All the covenants and provisions of this Agreement by or for the benefit of the Company or the Warrant Agent shall bind and inure to the benefit of their respective successors and assigns.

9.2 Notices. Any notice, statement or demand authorized by this Warrant Agreement to be given or made by the Warrant Agent or by the holder of any Warrant to or on the Company shall be delivered by hand or sent by facsimile, registered or certified mail or overnight courier service, addressed (until another address is filed in writing by the Company with the Warrant Agent) as follows:

Aastrom Biosciences, Inc.  
24 Frank Lloyd Wright Drive  
P.O. Box 376  
Ann Arbor, MI 48106  
Attn: President

Any notice, statement or demand authorized by this Agreement to be given or made by the holder of any Warrant or by the Company to or on the Warrant Agent shall be delivered by

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facsimile, hand or sent by registered or certified mail or overnight courier service, addressed (until another address is filed in writing by the Company with the Warrant Agent) as follows:

Continental Stock Transfer & Trust Company  
17 Battery Place  
New York, New York 10004

Attn: Compliance Department

Any notice, statement or demand authorized by this Agreement to be given or made by the Company or by the Warrant Agent to or on the holder of any Warrant shall be delivered by facsimile, hand or sent by registered or certified mail or overnight courier service, addressed (until another address is filed in writing by the holder with the Warrant Agent) as set forth on the Warrant Register

Any notice, sent pursuant to this Warrant Agreement shall be effective, if delivered by hand, upon receipt thereof by the party to whom it is addressed, if sent by facsimile, on the date sent, by overnight courier, on the next business day of the delivery to the courier, and if sent by registered or certified mail on the third day after registration or certification thereof.

9.3 Applicable Law. The validity, interpretation and performance of this Agreement and of the Warrants shall be governed in all respects by the laws of the State of New York, without giving effect to conflicts of law principles that would result in the application of the substantive laws of another jurisdiction. The Company hereby agrees that any action, proceeding or claim against it arising out of or relating in any way to this Agreement shall be brought and enforced in the courts of the State of New York or the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 9.2 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim.

9.4 Persons Having Rights under this Agreement. Except as provided in Section 8.1 hereof, nothing in this Agreement expressed and nothing that may be implied from any of the provisions hereof is intended, or shall be construed, to confer upon, or give to, any person or corporation other than the parties hereto and the registered holders of the Warrants any right, remedy, or claim under or by reason of this Warrant Agreement or of any covenant, condition, stipulation, promise, or agreement hereof. Except as provided in Section 8.1 hereof, all covenants, conditions, stipulations, promises, and agreements contained in this Warrant Agreement shall be for the sole and exclusive benefit of the parties hereto and their successors and assigns and of the registered holders of the Warrants.

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9.5 Examination of the Warrant Agreement. A copy of this Agreement shall be available at all reasonable times at the office of the Warrant Agent in the Borough of Manhattan, City and State of New York, for inspection by the registered holder of any Warrant. The Warrant Agent may require any such holder to submit his, her or its Warrant for inspection by it.

9.6 Counterparts. This Agreement may be executed in any number of original or facsimile counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

9.7 Effect of Headings. The section headings herein are for convenience only and are not part of this Warrant Agreement and shall not affect the interpretation thereof.

9.8 Amendments. This Agreement may be amended by the parties hereto without the consent of any registered holder for the purpose of curing any ambiguity, or curing, correcting or supplementing any defective provision contained herein or adding or changing any other provisions with respect to matters or questions arising under this Agreement as the parties may deem necessary or desirable and that the parties deem shall not adversely affect the interest of the registered holders. All other modifications or amendments shall require the written consent of the registered holders of a sixty-seven percent (67%) of the then outstanding Warrants; provided that no modification or amendment that would (i) increase the Exercise Price, (ii) shorten the Exercise Period, or (iii) alter any other provision of this Agreement which provides for a monetary value to a registered holder shall be valid without such registered holder's consent.

9.9 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement.

9.10 Dispute Resolution. In the case of a dispute as to the determination of the Exercise Price, the Closing Sale Price, Black Scholes Value, Black Scholes Consideration Value, or fair market value or the arithmetic calculation of the Warrant Shares (as the case may be), the Company or the registered holder (as the case may be) shall submit the disputed determinations or arithmetic calculations (as the case may be) via facsimile (i) within two (2) Business Days after receipt of the applicable notice giving rise to such dispute to the Company or the registered holder (as the case may be) or (ii) if no notice gave rise to such dispute, at any time after the registered holder learned of the circumstances giving rise to such dispute (including, without limitation, as to whether any issuance or sale or deemed issuance or sale was an issuance or sale or deemed issuance or sale in respect of an Excluded Issuance). If the registered holder and the Company are unable to agree upon such determination or calculation (as the case may be) of the Exercise Price, the Closing Sale Price, the Bid Price or fair market value or the number of Warrant Shares (as the case may be) within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to the Company or the Holder (as the case may be), then the Company shall, within two (2) Business Days submit via facsimile (a) the disputed determination of the Exercise Price, the Closing Sale Price, or fair market value (as the case may be) to an independent, reputable investment bank selected by the Holder or (b) the

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disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant (as the case may be) to perform the determinations or calculations (as the case may be) and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives such disputed determinations or calculations (as the case may be). Such investment bank's or accountant's determination or calculation (as the case may be) shall be binding upon all parties absent demonstrable error.

[Signature page follows]

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IN WITNESS WHEREOF, this Agreement has been duly executed by the parties hereto as of the day and year first above written.

**AASTROM BIOSCIENCES, INC.**

By: \_\_\_\_\_  
Name: Timothy M. Mayleben  
Title: President and Chief Executive Officer

**CONTINENTAL STOCK TRANSFER & TRUST  
COMPANY**

By: \_\_\_\_\_  
Name:  
Title:

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EXERCISABLE ON OR AFTER DECEMBER 15, 2010  
AND ON OR BEFORE DECEMBER 15, 2015 (THE EXPIRATION DATE)  
WARRANTS  
TO ACQUIRE \_\_\_\_\_ SHARES OF COMMON STOCK OF  
AASTROM BIOSCIENCES, INC.

Warrant Certificate No.: \_\_\_\_\_ CUSIP: 00253U 164

This Warrant Certificate certifies that \_\_\_\_\_, or registered assigns, is the registered holder of a Warrant (the "Warrant") to acquire from Aastrom Biosciences, Inc., a Michigan corporation (the "Company"), the number of fully paid and non-assessable shares of Common Stock, no par value, of the Company (the "Common Stock") specified above for consideration equal to the Exercise Price (as defined in the Warrant Agreement) per share of Common Stock. The Exercise Price and number of shares of Common Stock and/or type of securities or property issuable upon exercise of the Warrant are subject to adjustment upon the occurrence of certain events as set forth in the Warrant Agreement. The Warrant evidenced by this Warrant Certificate shall not be exercisable after and shall terminate and become void as of 5:30 P.M., New York time, on the Expiration Date.

The Warrant evidenced by this Warrant Certificate is part of a duly authorized issue of warrants expiring on the Expiration Date entitling the registered holder hereof to receive shares of Common Stock, and is issued or to be issued pursuant to a Warrant Agreement dated December 15, 2010 (the "Warrant Agreement"), duly executed and delivered by the Company to Continental Stock Transfer & Trust Company, as warrant agent (the "Warrant Agent", which term includes any successor Warrant Agent under the Warrant Agreement), which Warrant Agreement is hereby incorporated by reference in and made a part of this instrument and is hereby referred to for a description of the rights, limitation of rights, obligations, duties and immunities thereunder of the Warrant Agent, the Company and the registered holders ("Holders" meaning, from time to time, the registered holders of the warrant issued thereunder). To the extent any provisions of this Warrant Certificate conflicts with any provision of the Warrant Agreement, the provisions of the Warrant Agreement shall apply. A copy of the Warrant Agreement may be obtained by the Holder hereof upon written request to the Company at 24 Frank Lloyd Wright Drive, P.O. Box 376, Ann Arbor, MI 48106. Capitalized terms not defined herein have the meanings ascribed thereto in the Warrant Agreement.

This Warrant may be exercised, in whole or in part, at any time on or after December 15, 2010 and on or before December 15, 2015 (the "Expiration Date"), subject to the terms of the Warrant Agreement including, but not limited to, Section 3 thereof, by delivering the Form of Election to Purchase set forth hereon properly completed and executed in accordance with Section 3 of the Warrant Agreement. Each exercise must be for a whole number of Warrant Shares. In the event that upon any exercise of the Warrant evidenced hereby the number of shares of Common Stock acquired shall be less than the total number of shares of Common Stock which may be purchased pursuant to this Warrant, there shall be issued to the Holder hereof or such Holder's assignee a new Warrant Certificate evidencing the unexercised portion of this Warrant.

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The Warrant Agreement provides that upon the occurrence of certain events the Exercise Price set forth on this Warrant Certificate may, subject to certain conditions, be adjusted, and that upon the occurrence of certain events the number of shares of Common Stock and/or the type of securities or other property issuable upon the exercise of this Warrant shall be adjusted. No fractions of a share of Common Stock will be issued upon the exercise of this Warrant, but the Company will pay the cash value thereof determined as provided in the Warrant Agreement.

Warrant Certificates, when surrendered at the office of the Warrant Agent by the registered Holder thereof in person or by such Holder's legal representative or attorney duly appointed and authorized in writing, may be exchanged, in the manner and subject to the limitations provided in the Warrant Agreement, but without payment of any service charge, for another Warrant Certificate or Warrant Certificates of like tenor evidencing in the aggregate the right to purchase a like number of Warrant Shares.

Each taker and holder of this Warrant Certificate, by taking or holding the same, consents and agrees that the holder of this Warrant Certificate when duly endorsed in blank may be treated by the Company, the Warrant Agent and all other persons dealing with this Warrant Certificate as the absolute owner hereof for any purpose and as the person entitled to exercise the rights represented hereby or the person entitled to the transfer hereof on the register of the Company maintained by the Warrant Agent, any notice to the contrary notwithstanding, provided that until such transfer on such register, the Company and the Warrant Agent may treat the registered Holder hereof as the owner for all purposes.

This Warrant does not entitle any Holder to any of the rights of a shareholder of the Company.

This Warrant and the Warrant Agreement are subject to amendment as provided in the Warrant Agreement.

This Warrant Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by the Warrant Agent.

[The remainder of this page has been left intentionally blank.]

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IN WITNESS WHEREOF, the undersigned have caused this Warrant Certificate to be executed as of the date set forth below.

**AASTROM BIOSCIENCES, INC.**

By: \_\_\_\_\_  
Name:  
Title:

Countersigned:

**CONTINENTAL STOCK TRANSFER & TRUST COMPANY**

By: \_\_\_\_\_  
Name:  
Title:

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FORM OF ELECTION TO EXERCISE

To Aastrom Biosciences, Inc.:

In accordance with the Warrant Certificate enclosed with this Form of Election to Exercise, the undersigned hereby irrevocably elects to exercise the Warrant with respect to Warrant Shares in accordance with the terms of the Warrant Agreement.

1. Form of Exercise Price. The Holder intends that payment of the Exercise Price shall be made as:

\_\_\_\_\_ a Cash Exercise; or

\_\_\_\_\_ a Cashless Exercise.

2. Payment of Exercise Price. In the event that the Holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the Holder shall pay the Aggregate Exercise Price, in lawful money of the United States, by certified check or bank draft payable to the order of the Company (or as otherwise agreed to by the Company) delivered to the Warrant Agent, together with any applicable taxes payable by the undersigned pursuant to the Warrant.

The undersigned requests that certificates for the shares of Common Stock issuable upon this exercise be issued in the name of

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Social Security or Tax I.D. No.: \_\_\_\_\_



400 Renaissance Center  
Detroit, Michigan 48243  
WWW.DYKEMA.COM  
Tel: (313) 568-6800  
Fax: (313) 568-6658

December 10, 2010

Aastrom Biosciences, Inc.  
Domino's Farms, Lobby K  
24 Frank Lloyd Wright Drive  
Ann Arbor, MI 48105

Re: Prospectus Supplement to Registration Statement on Form S-3 (Reg. No. 333-170581)

Gentlemen:

As special counsel to Aastrom Biosciences, Inc., a Michigan corporation (the "Company"), we are rendering this opinion in connection with the filing with the Securities and Exchange Commission (the "Commission") of a prospectus supplement ("Prospectus Supplement") to the Company's registration statement on Form S-3, Reg. No. 333-170581, as amended to date (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Act"). The Prospectus Supplement relates to (i) the issuance, offer and sale by the Company of up to 10,000,000 units (the "Units"), each Unit consisting of (a) one share of the Company's Common Stock (the "Shares") and (b) one warrant to purchase one share of the Company's Common Stock (the "Warrants"), pursuant to the Underwriting Agreement dated December 10, 2010 (the "Underwriting Agreement") between the Company and Stifel, Nicolaus & Company, Incorporated, as representative of the several underwriters and the Warrant Agreement (the "Warrant Agreement") entered into between the Company and Continental Stock Transfer & Trust Co. (the "Warrant Agent") and (ii) the issuance of up to 10,000,000 shares of the Company's Common Stock issuable upon exercise of the Warrants (the "Warrant Shares").

In rendering our opinion, we have examined the Registration Statement (including the exhibits thereto), the Prospectus Supplement, the Underwriting Agreement, the form of Warrant Agreement, the originals or copies, certified or otherwise identified to our satisfaction, of the Restated Articles of Incorporation and the Bylaws of the Company as amended to date, resolutions of the Company's Board of Directors and of its Pricing Committee and such other documents and corporate records relating to the Company and the issuance and sale of the Shares, the Warrants and the Warrant Shares as we have deemed appropriate.

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Aastrom Biosciences, Inc.  
December 10, 2010  
Page 2

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the conformity to original documents of all photostatic and facsimile copies submitted to us, and the due execution and delivery of all documents by any party where due execution and delivery are a prerequisite to the effectiveness thereof. We have assumed that the Underwriting Agreement is enforceable in accordance with its terms and that, upon execution, the Warrant Agreement will be enforceable in accordance with their respective terms. As to any facts material to the opinion expressed herein that were not independently established or verified, we have relied upon statements and representations of officers and other representatives of the Company. We have assumed that payment and delivery the Shares, the Warrants and the Warrant Shares is made in accordance with the terms set forth in the Underwriting Agreement, the Warrant Agreement and other agreements and documents relating to the issuance and sale of the Shares, the Warrants and the Warrant Shares and that the terms set forth in such agreements and other documents are in accordance with the resolutions of the Company's Board of Directors and its Pricing Committee approving the issuance and sale of the Shares, the Warrants and the Warrant Shares. In addition, we have assumed that the certificates representing the Shares, the Warrants and the Warrant Shares will be duly executed and delivered.

On the basis of the foregoing, we are of the opinion that:

1. The Shares, when issued in accordance with the terms of the Underwriting Agreement, will be duly authorized, validly issued, fully paid, and non-assessable.
2. The Warrant Shares, when issued against payment of the exercise price therefor and in accordance with the terms of the Warrants and the Warrant Agreement, will be duly authorized, validly issued, fully paid, and non-assessable.

The opinion expressed herein is based exclusively on the applicable provisions of the Michigan Business Corporation Act as in effect on the date hereof.

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Aastrom Biosciences, Inc.  
December 10, 2010  
Page 3

We hereby consent to the reference to our firm under the caption "Legal Matters" in the Prospectus Supplement and to the filing of this opinion as an exhibit to the Registration Statement (through incorporation by reference from a Current Report on Form 8-K). 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,

/s/ Dykema Gossett PLLC

**DYKEMA GOSSETT PLLC**

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December 10, 2010

Aastrom Biosciences, Inc.  
Domino's Farms, Lobby K  
24 Frank Lloyd Wright Drive  
Ann Arbor, MI 48105

Re: Securities Registered under Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-3 (File No. 333-170581) (as amended or supplemented, the "Registration Statement") filed on November 12, 2010 with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of the offer by Aastrom Biosciences, Inc., a Michigan corporation (the "Company") of up to \$75,000,000 of any combination of securities of the types specified therein. The Registration Statement was declared effective by the Commission on November 29, 2010. We are delivering this opinion letter in connection with the prospectus supplement (the "Prospectus Supplement") filed on December 10, 2010 by the Company with the Commission pursuant to Rule 424 under the Securities Act. The Prospectus Supplement relates to the offering by the Company of up to 10,000,000 units (the "Units"), each Unit consisting of (i) one share of common stock, no par value per share (the "Common Stock") and (ii) one warrant to purchase one share of Common Stock (the "Warrants"), covered by the Registration Statement. We understand that the Units are to be offered and sold in the manner described in the Prospectus Supplement.

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinion expressed below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion expressed below is limited to New York law and the federal law of the United States.

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Based on the foregoing, we are of the opinion that the Warrants have been duly authorized and, upon issuance and delivery against payment therefor as set forth in the Registration Statement, will be valid and binding obligations of the Company.

The opinion expressed above is subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other similar laws of general application affecting the rights and remedies of creditors and to general principles of equity.

This opinion letter and the opinion it contains shall be interpreted in accordance with the Legal Opinion Principles issued by the Committee on Legal Opinions of the American Bar Association's Business Law Section as published in 53 Business Lawyer 831 (May 1998).

We hereby consent to the inclusion of this opinion as Exhibit 5.2 to the Registration Statement and to the references to our firm under the caption "Legal Matters" in the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ Goodwin Procter LLP

GOODWIN PROCTER LLP





Aastrom Biosciences  
Domino's Farms, Lobby K  
24 Frank Lloyd Wright Drive  
Ann Arbor, MI 48105  
T 734 930—5555 F 734 665—0485  
www.aastrom.com

Aastrom Biosciences, Inc. Prices \$22.5 Million  
Public Offering

Ann Arbor, MI, December 10, 2010 (9:00am ET) — Aastrom Biosciences, Inc. (NASDAQ: ASTM), a leading developer of expanded autologous cellular therapies for the treatment of severe, chronic cardiovascular diseases, today announced that it has priced a public offering of 10,000,000 units, with each unit consisting of one share of the Company's common stock and one warrant to purchase one share of common stock, at a purchase price of \$2.25 per unit for an aggregate offering amount of \$22.5 million. The net proceeds to Aastrom, after underwriting discounts and commissions and other offering expenses, from the sale of the units are expected to be approximately \$20.5 million. The Company intends to use the net proceeds from the offering for general corporate purposes, including research and development expenses such as expenses related to its Phase 3 CLI program, capital expenditures, working capital and general administrative expenses.

Each warrant will be exercisable at any time on or after the date of issuance until the fifth anniversary of the date of issuance at an exercise price of \$3.22. The shares of common stock and warrants are immediately separable and will be issued separately. The offering is expected to close on December 15, 2010, subject to customary closing conditions.

Stifel Nicolaus Weisel is acting as sole book-running manager and Needham & Company, LLC and Roth Capital Partners are acting as co-managers.

The offering is being made pursuant to an effective shelf registration statement that Aastrom filed with the Securities and Exchange Commission, or the SEC, on November 12, 2010. A prospectus supplement relating to the offering will be filed with the SEC. When available, copies of the prospectus supplement and the prospectus relating to these securities may be obtained by contacting Stifel, Nicolaus & Company, Incorporated, One Montgomery Street, Suite 3700, San Francisco, California 94104, Attention: General Counsel, (415) 364-2500. Electronic copies of the prospectus supplement and accompanying prospectus will also be available on the website of the SEC at <http://www.sec.gov>.

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This press release does not constitute an offer to sell or the solicitation of an offer to buy shares of common stock and warrants of Aastrom Biosciences, Inc., nor shall there be any sale of these securities in any state or jurisdiction in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

### **About Aastrom Biosciences**

Aastrom Biosciences is an emerging biotechnology company developing expanded autologous cellular therapies for use in the treatment of severe, chronic cardiovascular diseases. The company's proprietary cell-processing technology enables the manufacture of mixed-cell therapies expanded from a patient's own bone marrow and delivered directly to damaged tissues. Aastrom has advanced its cell therapies into late-stage clinical development, including a planned Phase 3 clinical program for the treatment of patients with critical limb ischemia and two ongoing Phase 2 clinical trials in patients with dilated cardiomyopathy. For more information, please visit Aastrom's website at [www.aastrom.com](http://www.aastrom.com).

#### **Media Contact**

Stephen Zoegall  
Berry & Company  
212 253—8881  
[szoegall@berrypr.com](mailto:szoegall@berrypr.com)

#### **Investor Contact**

Kimberli O'Meara  
Aastrom Biosciences  
734 930—5777  
[ir@aastrom.com](mailto:ir@aastrom.com)

This document contains forward-looking statements, including without limitation, statements concerning Aastrom's planned Phase 3 clinical program, ability to successfully complete the proposed offering and expected net proceeds from the offering, as well as other risks that are described in further detail in the preliminary prospectus and our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, and from time to time in other publicly available information regarding the Company. These statements are often, but are not always, made through the use of words or phrases such as "anticipates," "intends," "estimates," "plans," "expects," "we believe," "we intend," and similar words or phrases, or future or conditional verbs such as "will," "would," "should," "potential," "could," "may," or similar expressions. Actual results may differ significantly from the expectations contained in the forward-looking statements. These forward looking statements reflect management's current views and Aastrom does not undertake to update any of these forward-looking statements to reflect a change in its views or events or circumstances that occur after the date of this release except as required by law.