UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Amendment No. 1 to

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **July 24, 2009**

PHARMATHENE, INC.

(Exact name of registrant as specified in its charter)

Delaware	**001-32587**	**20-2726770**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

One Park Place, Suite 450, Annapolis, Maryland	**21401**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number including area code: **(410) 269-2600**

(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:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

EXPLANATORY NOTE

The information in this Amendment No. 1 to PharmAthene, Inc.'s current report on Form 8-K amends the Form 8-K previously filed with the Securities and Exchange Commission on July 30, 2009 to include the exhibits attached hereto.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits:

Exhibit No.	Description
4.9	Form of 10% Unsecured Senior Convertible Note*
4.10	Form of Warrant To Purchase Common Stock*
10.50	Form of Note and Warrant Purchase Agreement, dated as of July 24, 2009 by and among PharmAthene, Inc. and the investors signatories thereto, as amended by Amendment No. 1 to Note and Warrant Purchase Agreement, dated as of July 26, 2009 and Amendment No. 2 to Note and Warrant Purchase Agreement, dated as of July 28, 2009
10.51	Form of Registration Rights Agreement, dated as of July 26, 2009 by and among PharmAthene, Inc. and the investors signatories thereto

* The Notes issued to one group of investors in the aggregate principal amount of $7,000,000, and the related Warrants, each contain a provision limiting the number of shares of common stock issuable upon conversion of the Note or exercise of the Warrant by the investor to a number such that, following such conversion or exercise, the total number of shares beneficially owned by such investor and its affiliates would not exceed 9.999% of PharmAthene, Inc.'s

outstanding shares of common stock. Such Notes and Warrants were identical in all other respects (other than name and amount) to the Form of Note and Form of Warrant attached as exhibits hereto.

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.

PHARMATHENE, INC.
(Registrant)

Date: August 3, 2009

By: /s/ David P. Wright
David P. Wright
Chief Executive Officer

SENIOR UNSECURED CONVERTIBLE NOTE

NEITHER THE ISSUANCE AND SALE OF THIS NOTE NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS NOTE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR APPLICABLE STATE OR PROVINCIAL SECURITIES LAWS. THIS NOTE AND THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS NOTE MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THIS NOTE OR THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS NOTE UNDER THE SECURITIES ACT, OR (B) AN OPINION OF COUNSEL (SELECTED BY THE HOLDER AND REASONABLY ACCEPTABLE TO THE COMPANY), IN A FORM REASONABLY ACCEPTABLE TO THE COMPANY, THAT THIS NOTE AND THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS NOTE MAY BE OFFERED FOR SALE, SOLD, ASSIGNED OR TRANSFERRED PURSUANT TO AN EXEMPTION FROM REGISTRATION; PROVIDED THAT SUCH OPINION OF COUNSEL SHALL NOT BE REQUIRED IN CONNECTION WITH ANY SUCH SALE, ASSIGNMENT OR TRANSFER TO AN INSTITUTIONAL ACCREDITED INVESTOR THAT IS PRIOR TO SUCH SALE, ASSIGNMENT OR TRANSFER A HOLDER OF ADDITIONAL NOTES (AS SUCH TERM IS DEFINED IN THIS NOTE) OR AN AFFILIATE OF THE HOLDER OF THIS NOTE, OR (C) IN THE CASE OF A HOLDER RESIDENT IN CANADA OR OTHERWISE SUBJECT TO THE PROVINCIAL SECURITIES LAWS OF CANADA, A PROSPECTUS QUALIFYING THE DISTRIBUTION OF THIS NOTE OR THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS NOTES OR AN EXEMPTION THEREFROM, OR (II) THE HOLDER PROVIDES THE COMPANY WITH ASSURANCE (REASONABLY SATISFACTORY TO THE COMPANY) THAT SUCH NOTE OR THE SHARES OF COMMON STOCK ISSUABLE UPON THE CONVERSION OF THE NOTE CAN BE SOLD, ASSIGNED OR TRANSFERRED PURSUANT TO RULE 144.

ANY TRANSFEREE OF THIS NOTE SHOULD CAREFULLY REVIEW THE TERMS OF THIS NOTE, INCLUDING, WITHOUT LIMITATION, SECTIONS 3(c)(iii) AND 17(a) HEREOF. THE PRINCIPAL AMOUNT REPRESENTED BY THIS NOTE AND, ACCORDINGLY, THE SECURITIES ISSUABLE UPON CONVERSION HEREOF MAY BE LESS THAN THE AMOUNTS SET FORTH ON THE FACE HEREOF PURSUANT TO SECTION 3(c)(iii) OF THIS NOTE.

THIS NOTE HAS BEEN ISSUED PURSUANT TO THE NOTE AND WARRANT PURCHASE AGREEMENT (AS SUCH TERM IS DEFINED IN THIS NOTE), ARTICLE FIVE OF WHICH CONTEMPLATES CERTAIN RESTRICTIONS ON VOTING WITH RESPECT TO BOARD OF DIRECTOR NOMINEES ANY ASSIGNEE OR TRANSFEREE OF THIS NOTE SHALL BE SUBJECT TO THE RESTRICTIONS SET FORTH IN ARTICLE FIVE OF THE NOTE AND WARRANT PURCHASE AGREEMENT.

PHARMATHENE, INC.

SENIOR UNSECURED CONVERTIBLE NOTE

Issuance Date: July 28, 2009 Principal: U.S. $[•]
No. (subject to Section 3(c)(iii) hereof)

FOR VALUE RECEIVED, PharmAthene, Inc., a Delaware corporation (the "**Company**"), hereby promises to pay to [NAME OF HOLDER] or registered assigns ("**Holder**") the amount set out above as the Principal (as reduced pursuant to the terms hereof pursuant to redemption, conversion or otherwise, the "**Principal**") when due, whether upon the Maturity Date (as defined below), acceleration, redemption or otherwise (in each case in accordance with the terms hereof) and to accrue interest ("**Interest**") on any outstanding Principal at the Interest Rate (as defined below), from July 28, 2009 (the "**Issuance Date**") until the same becomes due and payable, whether upon the Maturity Date, acceleration, conversion, redemption or otherwise (in each case, in accordance with the terms hereof). This Senior Unsecured Convertible Note (including all Senior Unsecured Convertible Notes issued in exchange, transfer or replacement hereof, this "**Note**" and such other Senior Unsecured Convertible Notes, the "**Additional Notes**"**)** is one of an issue of Senior Unsecured Convertible Notes issued pursuant to the Note and Warrant Purchase Agreement (as defined below) (collectively, the "**Notes**").

Certain capitalized terms used herein are defined in Section 27.

(1) MATURITY. On the Maturity Date, the Holder shall surrender this Note to the Company and the Company shall pay to the Holder an amount in cash representing all outstanding Principal, accrued and unpaid Interest and accrued and unpaid Late Charges (as defined below), if any. The "**Maturity Date**" shall be July 28, 2011.

(2) INTEREST; INTEREST RATE. Interest on this Note shall commence accruing on the Issuance Date and shall be computed on the basis of a 360-day year comprised of twelve 30-day months and shall be payable entirely in cash with respect to the unpaid balance of any Principal upon the repayment thereof. Prior to the payment of Interest upon repayment, Interest on this Note shall accrue at the Interest Rate and shall be payable by way of inclusion of Interest in the Conversion Amount in accordance with Section 3(b)(i). If an Event of Default occurs and such Event of Default is subsequently cured, the adjustment referred to in Section 27(xvi) shall cease to be effective as of the date of such cure; provided that the Interest as calculated at such increased rate during the continuance of such Event of Default shall continue to apply to the extent relating to the days after the occurrence of such Event of Default through and including the date of cure of such Event of Default. All payments of Interest on the Notes shall be made on a pro rata basis in accordance with each Holder's percentage ownership of then outstanding Notes.

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(3) CONVERSION OF NOTES. This Note shall be convertible into shares of Common Stock, on the terms and conditions set forth in this Section 3.

(a) Conversion Right. At any time or times on or after the Issuance Date, the Holder shall be entitled to convert any portion of the outstanding and unpaid Conversion Amount (as defined below) into fully paid and nonassessable shares of Common Stock in accordance with Section 3(c), at the Conversion Rate (as defined below). The Company shall not issue any fraction of a share of Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Common Stock equal to or in excess of one half of one share, the Company shall round such

fraction of a share of Common Stock up to the nearest whole share. The Company shall pay any and all stock transfer, stamp, documentary and similar taxes (excluding any taxes on the income or gain of the Holder) that may be payable with respect to the issuance and delivery of shares of Common Stock to the Holder upon conversion of any Conversion Amount.

(b) Conversion Rate. The number of shares of Common Stock issuable upon conversion of any Conversion Amount pursuant to Section 3(a) (the "**Conversion Rate**") shall be determined by dividing (x) such Conversion Amount by (y) the Conversion Price.

(i) "**Conversion Amount**" means the sum of (A) the portion of the Principal to be converted, redeemed or otherwise with respect to which this determination is being made, (B) accrued and unpaid Interest with respect to such Principal and (C) accrued and unpaid Late Charges with respect to such Principal and Interest.

(ii) "**Conversion Price**" means, as of any Conversion Date (as defined below) or other date of determination, $2.541667, subject to adjustment as provided herein (including, without limitation, adjustment pursuant to Section 6).

(c) Mechanics of Conversion.

(i) Optional Conversion. To convert any Conversion Amount into shares of Common Stock on any date (a "**Conversion Date**"), the Holder shall (A) transmit by facsimile (or otherwise deliver), for receipt on or prior to 4:00 p.m., New York Time, on such date, a copy of an executed notice of conversion in the form attached hereto as Exhibit I (the "**Conversion Notice**") to the Company and (B) if required by Section 3(c)(iii), cause this Note to be delivered to the Company as soon as practicable on or following such date. On or before 4:00 p.m., New York Time, on the first (1st) Business Day following the date of receipt of a Conversion Notice, the Company shall transmit by facsimile a confirmation of receipt of such Conversion Notice to the Holder (at the facsimile number provided in the Conversion Notice) and the Company's transfer agent, if any (the "**Transfer Agent**"). On or before 4:00 p.m., New York Time, on the third (3rd) Business Day following the date of receipt of a Conversion Notice (the "**Share Delivery Date**"), the Company shall issue and deliver to the address as specified in the Conversion Notice, a certificate, registered in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder shall be entitled. If this Note is physically surrendered for conversion as required by Section 3(c)(iii) and the outstanding Principal of this Note is greater than the Principal portion of the Conversion Amount being

converted, then the Company shall as soon as practicable and in no event later than three (3) Business Days after receipt of this Note and at its own expense, issue and deliver to the Holder a new Note (in accordance with Section 17(d)), representing the outstanding Principal not converted. The Person or Persons entitled to receive the shares of Common Stock issuable upon a conversion of this Note shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the Conversion Date.

(ii) Company's Failure to Timely Convert. If, at any time, the Company shall fail to issue a certificate to the Holder upon conversion of any Conversion Amount on or prior to the date which is seven (7) Business Days after the Conversion Date (a "**Conversion Failure**"), then (A) the Company shall pay damages to the Holder for each day of such Conversion Failure in an amount equal to 1.5% of the product of (I) the sum of the number of shares of Common Stock not issued to the Holder on or prior to the Share Delivery Date and to which the Holder is entitled, and (II) the Closing Sale Price of the Common Stock on the Share Delivery Date and (B) the Holder, upon written notice to the Company, may void its Conversion Notice with respect to, and retain or have returned, as the case may be, any portion of this Note that has not been converted pursuant to such Conversion Notice; provided that the voiding of a Conversion Notice shall not affect the Company's obligations to make any payments which have accrued prior to the date of such notice pursuant to this Section 3(c)(ii) or otherwise.

(iii) Book-Entry. Notwithstanding anything to the contrary set forth herein, upon conversion of any portion of this Note in accordance with the terms hereof, the Holder shall not be required to physically surrender this Note to the Company unless (A) the full Conversion Amount represented by this Note is being converted or (B) the Holder has provided the Company with prior written notice (which notice may be included in a Conversion Notice) requesting physical surrender and reissue of this Note. The Holder and the Company shall maintain records showing the Principal, Interest and Late Charges converted and the dates of such conversions or shall use such other method, reasonably satisfactory to the Holder and the Company, so as not to require physical surrender of this Note upon conversion.

(iv) Pro Rata Conversion; Disputes. In the event that the Company receives a Conversion Notice from more than one Holder of Notes for the same Conversion Date and the Company can convert some, but not all, of such portions of the Notes submitted for conversion, the Company shall convert from each Holder of Notes electing to have Notes converted on such date a pro rata amount of each such Holder's portion of its Notes submitted for conversion based on the Principal amount of Notes submitted for conversion on such date by such Holder relative to the aggregate Principal amount of all Notes submitted for conversion on such date. In the event of a dispute between the Company and any Holders of Notes that are subject to any such Conversion Notice or among any Holders of Notes that are subject to any such Conversion Notice as to the number of shares of Common Stock issuable to the Holder in connection with a conversion of this Note, the Company shall issue to the Holder the number of shares of Common Stock not in dispute and resolve such dispute in accordance with Section 22.

(v) [Intentionally Omitted].

(4) RIGHTS UPON EVENT OF DEFAULT.

(a) Event of Default. Each of the following events shall constitute an "**Event of Default**":

(i) the Company's failure to pay to the Holder any amount of Principal when and as due under this Note (including, without limitation, the Company's failure to pay any Redemption Price);

(ii) the Company's failure to pay to the Holder any amount of Interest, Late Charges or other amounts (other than the amounts specified in clause (i)) when and as due under this Note if such failure continues for a period of at least thirty (30) Business Days;

(iii) any acceleration prior to maturity of any Indebtedness referred to in clause (a) or (b) of the definition thereof of the Company or any of its Subsidiaries which individually or in the aggregate is equal to or greater than $250,000 principal amount of Indebtedness (following the expiration of all applicable grace periods);

(iv) the Company or any of its Material Subsidiaries, pursuant to or within the meaning of Title 11, U.S. Code, or any similar Federal, foreign or state law for the relief of debtors (collectively, "**Bankruptcy Law**"), (A) commences a voluntary case, (B) consents to the entry of an order for relief against it in an involuntary case, (C) consents to the appointment of a receiver, trustee, assignee, liquidator or similar official (a "**Custodian**"), (D) makes a general assignment for the benefit of its creditors or (E) admits in writing that it is generally unable to pay its debts as they become due;

(v) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that is not vacated, set aside or reversed within sixty (60) days that (A) is for relief against the Company or any of its Material Subsidiaries in an involuntary case, (B) appoints a Custodian of the Company or any of its Material Subsidiaries or (C) orders the liquidation of the Company or any of its Material Subsidiaries;

(vi) a final judgment or judgments for the payment of money aggregating in excess of $5,000,000 are rendered against the Company or any of its Subsidiaries and which judgments are not, within sixty (60) days after the entry thereof, bonded, discharged or stayed pending appeal, or are not discharged within sixty (60) days after the expiration of such stay; provided, however, that any judgment which is covered by insurance or an indemnity from a credit worthy party shall not be included in calculating the $5,000,000 amount set forth above so long as the Company provides the Holder a written statement from such insurer or indemnity provider (which written statement shall be reasonably satisfactory to the Holder) to the effect that such judgment is covered by insurance or an indemnity and the Company will receive the proceeds of such insurance or indemnity within sixty (60) days of the issuance of such judgment;

(vii) the Company breaches any covenant or agreement or materially breaches any representation or warranty in any Transaction Document (except for Section 14(f) of the Notes and Section 5.2 of Note and Warrant Purchase Agreement), and such breach continues for a period of at least thirty (30) days after written notice thereof from one or more Holders to the Company; or

(viii) if at any time while at least thirty percent (30%) of the aggregate Principal amount of the Notes remain outstanding (x) the Board of Directors fails to include two (2) Directors designated pursuant to Article SIXTH of the Company's Amended and Restated Certificate of Incorporation ("Noteholder Directors"), provided that the Company shall have thirty (30) Business Days following the resignation, removal or death or disability of a Noteholder Director to appoint a successor Noteholder Director, unless such failure is the result of the failure by the Holders to notify the Company of the name of the replacement Noteholder Directors, in which event the thirty (30) Business Day period shall be extended until a date which is ten (10) Business Days after notice of the name and background of the replacement Noteholder Directors is given to the Company, or (y) without the consent of each of the persons then serving as Noteholder Directors, the Board of Directors exceeds nine (9) directors, or the Compensation Committee or Nominating Committee (or other committees serving similar functions) exceeds three (3) members, or (z) the Noteholder Directors are not afforded the right to appoint two (2) members of each of the Compensation Committee and Nominating Committee (or committees serving similar functions).

(b) Rights Upon Event of Default. Promptly after the occurrence of an Event of Default with respect to this Note, the Company shall deliver written notice thereof (an "**Event of Default Notice**") to the Holder. If an Event of Default with respect to the Company described in Sections 4(a)(iv), 4(a)(v) or 4(a)(viii) has occurred, all the Notes then outstanding shall automatically become immediately due and payable. If any Event of Default described in Sections 4(a)(i), 4(a)(ii), 4(a)(iii), 4(a)(vi) or 4(a)(vii) has occurred and is continuing, Holders of not less than a majority of the aggregate Principal amount of the Notes then outstanding (the "**Required Holders**") may at any time at its or their option, by notice or notices to the Company (an "**Event of Default Payment Notice**"), declare all the Notes then outstanding to be immediately due and payable. Upon any Notes becoming due and payable under this Section 4(b), whether automatically or by declaration, such Notes will forthwith mature and the entire unpaid Principal, plus all accrued and unpaid Interest and Late Charges, shall become immediately due and payable (the "**Event of Default Price**"). Payments required by this Section 4(b) shall be made in accordance with the provisions of Section 12.

(5) RIGHTS UPON FUNDAMENTAL TRANSACTION AND CHANGE OF CONTROL.

(a) Assumption. The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Note and the other Transaction Documents in accordance with the provisions of this Section 5(a) pursuant to written agreements on or prior to such Fundamental Transaction, including the agreement to deliver to each Holder of Notes in exchange for such Notes a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to the Notes, including, without limitation, having a principal amount and interest rate equal to the principal amounts and the interest rates of the Notes held by such Holder (the "**Successor Note**"). Upon the occurrence of any Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Note referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Note with the same effect as if

such Successor Entity had been named as the Company herein, until such time as the Successor Note is delivered. Upon consummation of a Reclassification or Fundamental Transaction as a result of which holders of Common Stock shall be entitled to receive stock, securities, cash, assets or any other property with respect to or in exchange for such Common Stock, the Company or Successor Entity, as the case may be, shall deliver to the Holder confirmation that there shall be issued upon conversion or redemption of this Note at any time after the consummation of such Reclassification or Fundamental Transaction, in lieu of the shares of Common Stock (or other securities, cash, assets or other property) issuable upon the conversion or redemption of the Notes prior to such Reclassification or Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) which the Holder would have been entitled to receive upon the happening of such Reclassification or Fundamental Transaction had this Note been converted immediately prior to such Reclassification or Fundamental Transaction, as adjusted in accordance with the provisions of this Note. The provisions of this Section shall apply similarly and equally to successive Fundamental Transactions and shall be applied without regard to any limitations on the conversion or redemption of this Note.

(b) Redemption upon Change of Control. No sooner than fifteen (15) days nor later than ten (10) days prior to the consummation of a Change of Control (but not prior to the public announcement of such Change of Control), the Company shall deliver written notice thereof to the Holder (a "**Change of Control Notice**"). If at any time during the period (the "**Change of Control Measuring Period**") beginning after the Holder's receipt of a Change of Control Notice and ending on the date of the consummation of such Change of Control (or, in the event a Change of Control Notice is not delivered at least ten (10) days prior to a Change of Control, at any time on or after the date which is ten (10) days prior to a Change of Control and ending ten (10) days after the consummation of such Change of Control), the Holder may require the Company to redeem all (but not less than all) of this Note ("**Optional Change of Control Redemption**") by delivering written notice thereof ("**Optional Change of Control Redemption Notice**") to the Company, provided, however, the Company shall not be required to redeem any amount pursuant to such notice unless the Required Holders submit Optional Change of Control Redemption Notices. An Optional Change of Control Redemption required by this Section 5 shall be made in accordance with the provisions of Section 12. If this Note is subject to redemption pursuant to this Section 5 it shall be redeemed by the Company at a price equal to the Conversion Amount (**the "Change of Control Redemption Price**"). Notwithstanding anything to the contrary in this Section 5, until the Change of Control Redemption Price (together with any interest thereon) is paid in full, the Conversion Amount submitted for redemption under this Section 5(b) (together with any interest thereon) may be converted, in whole or in part, by the Holder into shares of Common Stock pursuant to Section 3.

(c) Redemption of Illiquid Consideration After Conversion. Following the Company's entry into a definitive agreement relating to a Fundamental Transaction, the Company will notify each Holder not later than the 10th day following the effective date of such Fundamental Transaction of the determination by the Company's board of directors, made in good faith, of the fair market value of the Illiquid Consideration at the time of such Fundamental Transaction, and each Holder shall have the right, exercisable for thirty (30) days following the delivery of such notice, to require the Company to redeem all or any part of the Illiquid Consideration received upon conversion of its Notes for cash in the amount of such

fair market value; provided that such notice shall specify in reasonable detail the basis for such determination. In the event that the Holder disagrees with such determination of fair market value, the Holder may require that such fair market value be determined in accordance with the provisions of Section 22.

(6) RIGHTS UPON ISSUANCE OF PURCHASE RIGHTS AND OTHER CORPORATE EVENTS.

(a) Purchase Rights. If the Company at any time, or from time to time, grants, issues or sells any (i) Options, (ii) Convertible Securities or (iii) rights to purchase stock, warrants, securities or other property, pro rata to all record holders of any class of Common Stock (the "**Purchase Rights**"), then the person who is the Holder as of the Stock Record Date (as defined below) will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of this Note (without taking into account any limitations or restrictions on the convertibility of this Note) 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 Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (the "**Stock Record Date**").

(b) Other Corporate Events. In addition to and not in substitution for any other rights hereunder, prior to the consummation of any Reclassification or Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a "**Corporate Event**"), the Company shall make appropriate provision to ensure that the Holder will thereafter have the right to receive upon a conversion of this Note, (i) in the event that the Common Stock remains outstanding after any such Corporate Event, in addition to the shares of Common Stock receivable upon such conversion, such securities or other assets to which the Holder would have been entitled with respect to such shares of Common Stock had such shares of Common Stock been held by the Holder upon the consummation of such Corporate Event (without taking into account any limitations or restrictions on the convertibility of this Note) or (ii) in the event that the Common Stock is no longer outstanding after any such Corporate Event, in lieu of the shares of Common Stock otherwise receivable upon such conversion, such securities or other assets received by the holders of shares of Common Stock in connection with the consummation of such Corporate Event in such amounts as the Holder would have been entitled to receive had such shares of Common Stock been held by the Holder upon the consummation of such Corporate Event (without taking into account any limitations or restrictions on the convertibility of this Note). The provisions of this Section shall apply similarly and equally to successive Corporate Events and shall be applied without regard to any limitations on the conversion or redemption of this Note. Notwithstanding this Section (6)(b), in no event shall the Company be obligated to distribute any Purchase Rights pursuant to this Section (6)(b) if and to the extent that it has distributed such Purchase Rights to the Holder pursuant to Section (6)(a).

(7) RIGHTS UPON ISSUANCE OF OTHER SECURITIES.

(a) Record Date. If the Company takes a record of the holders of Common Stock for the purpose of entitling them (A) to receive a dividend or other distribution payable in Common Stock, Options or in Convertible Securities or (B) to subscribe for or purchase Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the 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.

(b) Adjustment of Conversion Price upon Subdivision or Combination of Common Stock; Stock Dividends. If the Company at any time, or from time to time, subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Conversion Price in effect immediately prior to such subdivision will be proportionately reduced. If the Company at any time, or from time to time, combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Conversion Price in effect immediately prior to such combination will be proportionately increased. Any adjustment under this Section 7(b) shall become effective at the close of business on the date the subdivision or combination becomes effective or, in the case of a stock dividend or distribution, the date of such event.

(c) (i) Adjustment of Conversion Price upon Cash Dividends and Distributions. If the Company at any time, or from time to time, pays a dividend or makes a distribution in cash to the record holders of any class of Common Stock, then immediately after the close of business on the day that the Common Stock trades ex-distribution, the Conversion Price then in effect shall be reduced to an amount equal to the product of (i) the

Conversion Price in effect immediately prior to such dividend or distribution and (ii) the quotient determined by dividing (A) the Closing Sale Price of the Common Stock on the day that the Common Stock trades ex-distribution by (B) the sum of (1) the Closing Sale Price of the Common Stock on the day that the Common Stock trades ex-distribution plus (2) the amount per share of such dividend or distribution. The Company shall not be required to give effect to any adjustment in the Conversion Price pursuant to this Section 7(c) unless and until the net effect of one or more adjustments (each of which shall be carried forward until counted toward an adjustment), determined in accordance with this Section 7(c), shall have resulted in a change of the Conversion Price by at least 1%, and when the cumulative net effect of more than one adjustment so determined shall be to change the Conversion Price by at least 1%, such change in the Conversion Price shall thereon be given effect.

(ii) Adjustment of Conversion Price upon Distributions of Capital Stock, Indebtedness or Other Non-Cash Assets. If the Company at any time, or from time to time, distributes any shares of capital stock of the Company (other than Common Stock), evidences of indebtedness or other non-cash assets (including securities of any person other than the Company but excluding (1) dividends or distributions paid exclusively in cash or (2) dividends or distributions referred to in Section 7(b)) to the record holders of any class of Common Stock, then the Conversion Price then in effect shall be reduced to an amount equal to the product of (A) the Conversion Price then in effect and (B) a fraction of which the numerator

shall be the Closing Sale Price share of the Common Stock on the record date fixed for determination of stockholders entitled to receive such distribution less the fair market value on such record date (as determined by the Board of Directors) of the portion of the capital stock, evidences of indebtedness or other non-cash assets so distributed applicable to one share of Common Stock (determined on the basis of the number of shares of Common Stock outstanding on the record date) and of which the denominator shall be the Closing Sale Price per share of the Common Stock on such record date. Notwithstanding the foregoing, if the securities distributed by the Company to the record holders of any class of Common Stock consist of capital stock of, or similar equity interests in, a Subsidiary or other business unit, the Conversion Price shall be decreased so that the same shall be equal to the rate determined by multiplying the Conversion Price in effect on the record date with respect to such distribution by a fraction the numerator of which shall be the average Closing Sale Price of one share of Common Stock over the Spinoff Valuation Period and of which the denominator shall be the sum of (x) the average Closing Sale Price of one share of Common Stock over the ten consecutive Trading Day period (the "**Spinoff Valuation Period**") commencing on and including the fifth Trading Day after the date on which "ex-dividend trading" commences on the Common Stock on the Eligible Market or such other national or regional exchange or market on which the Common Stock is then listed or quoted and (y) the average Closing Sale Price over the Spinoff Valuation Period of the portion of the securities so distributed applicable to one share of Common Stock, such adjustment to become effective immediately prior to the opening of business on the fifteenth Trading Day after the date on which "ex-dividend trading" commences.

(d) Other Events; Other Dividends and Distributions. If any event occurs of the type contemplated by the provisions of this Section 7 but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features), then the Company's board of directors shall make in good faith an adjustment in the Conversion Price so as to protect the rights of the Holder under this Note; provided that no such adjustment will increase the Conversion Price as otherwise determined pursuant to this Section 7.

(e) Notice of Adjustment. Whenever the Conversion Price is adjusted pursuant to this Section 7, the Company shall promptly mail notice of such adjustment to each Holder, which notice shall set forth the Conversion Price after adjustment, the date on which such adjustment became effective and a brief statement of the facts resulting in such adjustment.

(8) COMPANY'S RIGHT OF REDEMPTION.

(a) Call Redemption. At any time from and after the first anniversary of the Issuance Date (the "**Call Redemption Eligibility Date**"), the Company shall have the right to redeem, from time to time, all or any portion of the Conversion Amount then remaining under this Note, as designated in the Call Redemption Notice, as of the Call Redemption Date (a "**Call Redemption**"). The portion of this Note subject to redemption pursuant to this Section 8(a) shall be redeemed by the Company at a price equal to the Conversion Amount being redeemed (the "**Call Redemption Price**", and together with the Change of Control Redemption Price, "**Redemption Prices**") on the date specified by the Company in the Call Redemption Notice (the "**Call Redemption Date**"), which date shall not be less than thirty (30) nor more than sixty (60) days after the Call Redemption Notice Date. The Company may exercise its right

to require redemption under this Section 8(a) by delivering a written notice thereof to all of the Holders of Notes and the Transfer Agent (the "**Call Redemption Notice**" and the date such notice is sent is referred to as the "**Call Redemption Notice Date**"). Each such Call Redemption Notice shall be irrevocable. The Call Redemption Notice shall state the aggregate Conversion Amount of the Notes which the Company has elected to be subject to Call Redemption from all of the Holders of the Notes pursuant to this Section 8(a) (and analogous provisions under the Additional Notes). All Conversion Amounts converted by the Holder after the Call Redemption Notice Date shall reduce the Conversion Amount of this Note required to be redeemed on the Call Redemption Date. Redemptions made pursuant to this Section 8(a) shall be made in accordance with Section 12. For the avoidance of doubt, notwithstanding the foregoing, the Holder shall be entitled to convert any portion of the outstanding and unpaid Conversion Amount into fully paid and nonassessable shares of Common Stock in accordance with Section 3 from and after any Call Redemption Notice Date until any Call Redemption Date in respect of such Conversion Amount.

(b) Pro Rata Redemption Requirement. If the Company elects to cause a redemption of all or any portion of the Conversion Amount of this Note pursuant to Section 8(a), then it must simultaneously take the same action with respect to the Additional Notes and the payment in respect of such redemption shall be made on a pro rata basis in accordance with each Holder's percentage ownership of then outstanding Notes.

(9) [Intentionally Omitted].

(10) NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation, Bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Note, and will at all times in good faith carry out all of the provisions of this Note and take all action as may be required to protect the rights of the Holder of this Note.

(11) RESERVATION OF AUTHORIZED SHARES.

(a) Reservation. The Company shall initially reserve out of its authorized and unissued shares of Common Stock a number of shares of Common Stock for each of the Notes equal to 140% of the Conversion Rate with respect to the Conversion Amount of each such Note as of the applicable Issuance Date. So long as any of the Notes are outstanding, the Company shall take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the conversion of the Notes, 140% of the number of shares of Common Stock as shall from time to time be necessary to effect the conversion of all of the Notes then outstanding; provided that at no time shall the number of shares of Common Stock so reserved be less than the number of shares required to be reserved by the previous sentence (without regard to any limitations on conversions) (the "**Required Reserve Amount**"). The initial number of shares of Common Stock reserved for conversions of the Notes and each increase in the number of shares so reserved shall be allocated pro rata among the Holders of the Notes based on the Principal amount of the Notes held by each Holder at the Closing (as defined in the Note and Warrant Purchase Agreement) or increase in

the number of reserved shares, as the case may be (the "**Authorized Share Allocation**"). In the event that a Holder shall sell or otherwise transfer any of such Holder's Notes, each transferee shall be allocated a pro rata portion of such Holder's Authorized Share Allocation. Any shares of Common Stock reserved and allocated to any Person which ceases to hold any Notes shall be allocated to the remaining Holders of Notes, pro rata based on the outstanding Principal amount of the Notes then held by such Holders.

(b) Insufficient Authorized Shares. If at any time while any of the Notes remain outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon conversion of the Notes at least a number of shares of Common Stock equal to the Required Reserve Amount (an "**Authorized Share Failure**"), then the Company shall take all action necessary to increase the Company's authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the Notes then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than seventy-five (75) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its commercially reasonable efforts to solicit its stockholders' approval of such increase in authorized shares of Common Stock and to cause its board of directors to recommend to the stockholders that they approve such proposal.

(12) PAYMENT OF EVENT OF DEFAULT PRICE / HOLDER'S REDEMPTIONS.

(a) Mechanics. The Company shall deliver the applicable Event of Default Price to the Holder (x) in the case of an Event of Default under Section 4(a)(iv), 4(a)(v), or 4(a)(viii) immediately and (y) in the case of any other Event of Default, within five (5) Business Days after the Company's receipt of the Event of Default Payment Notice. If the Holder has submitted an Optional Change of Control Redemption Notice in accordance with Section 5(b) or Section 9, respectively, the Company shall deliver the applicable Redemption Price to the Holder concurrently with the consummation of the applicable transaction if such notice is received by the Company on or prior to the third (3rd) Business Day preceding the consummation of such transaction and otherwise within five (5) Business Days after the Company's receipt of such notice (assuming the applicable transaction is consummated). The Company shall deliver the Call Redemption Price to the Holder on or before the Call Redemption Date. In the event that the Company receives an Event of Default Payment Notice or Optional Change of Control Redemption Notice (each a "**Redemption Notice**") and does not pay the applicable Redemption Price to the Holder within the time period required, at any time thereafter and until the Company pays such unpaid Redemption Price in full, the Holder shall have the option, in lieu of redemption, to require the Company to promptly return to the Holder all or any portion of this Note representing the Conversion Amount that was submitted for redemption and for which the applicable Redemption Price (together with any Late Charges thereon) has not been paid by delivery of a written notice (a "**Redemption Voiding Notice**") to the Company at any time prior to such payment in full. Upon the Company's receipt of such Redemption Voiding Notice, (x) the Redemption Notice to which such Redemption Voiding

Notice applies shall be null and void with respect to such Conversion Amount, (y) the Company shall immediately return this Note, or issue a new Note (in accordance with Section 17(d)) to the Holder representing such Conversion Amount and (z) the Conversion Price of this Note or such new Notes shall be adjusted to the lesser of (A) the Conversion Price as in effect on the date on which the Redemption Notice is voided and (B) the lowest Closing Bid Price of the Common Stock during the period beginning on and including the date on which the Redemption Notice is delivered to the Company and ending on and including the date on which the Redemption Notice is voided. The Holder's delivery of a Redemption Voiding Notice and exercise of its rights following such notice shall not affect the Company's obligations to make any payments of Late Charges which have accrued prior to the date of such notice with respect to the Conversion Amount subject to such notice.

(b) Redemption by Other Holders. Upon the Company's receipt of notice from any of the holders of the Additional Notes for redemption or repayment as a result of an event or occurrence substantially similar to the events or occurrences described in Section 4(b), Section 5(b) or Section 9 (each, an "**Other Redemption Notice**"), the Company shall promptly forward to the Holder by facsimile a copy of such notice. If the Company receives a Redemption Notice and one or more Other Redemption Notices during the seven (7) Business Day period beginning on and including the date which is three (3) Business Days prior to the Company's receipt of the Holder's Redemption Notice and ending on and including the date which is three (3) Business Days after the Company's receipt of the Holder's Redemption Notice and the Company is unable to redeem all Principal, interest and other amounts designated in such Redemption Notice and such Other Redemption Notices received during such seven (7) Business Day period, then the Company shall redeem a pro rata amount from each holder of the Notes (including the Holder) based on the aggregate Principal amount of the Notes submitted for redemption pursuant to such Redemption Notice and such Other Redemption Notices received by the Company during such seven Business Day period.

(13) VOTING RIGHTS. The Holder shall have no voting rights as the Holder of this Note, except as required by law, including, but not limited to, the General Corporation Law of the State of Delaware, and as expressly provided in this Note, the Company's Certificate of Incorporation or any other Transaction Documents.

(14) OTHER COVENANTS.

(a) Corporate Existence. Subject to Section 5, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, rights and franchises; provided that the Company shall not be required to preserve its corporate existence or any such right or franchise if the Company shall determine that the preservation thereof is no longer desirable in the conduct of its business and that the loss thereof is not disadvantageous in any material respect to the Holders of the Notes.

(b) [Intentionally Omitted].

(c) Listing. The Company shall promptly secure the listing of all of the Registrable Securities (as defined in the Registration Rights Agreement) upon each national securities exchange and automated quotation system, if any, upon which the Common Stock is

then listed (subject to official notice of issuance) and shall maintain such listing of all Registrable Securities from time to time issuable under the terms of the Transaction Documents. The Company shall maintain the Common Stock's authorization for quotation on the principal exchange or market in which it is listed. Neither the Company nor any of its Subsidiaries shall take any action which would be reasonably expected to result in the delisting or suspension of the Common Stock on the principal market in which it is listed. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 14(c).

(d) Reports by the Company. The Company covenants to make available to the Holder, within 15 days after the Company is required to file the same with the SEC, copies of the annual reports and of the information, documents, and other reports (or copies of such portions of any of the foregoing as the SEC may from time to time by rules and regulations prescribe) which the Company may be required to file with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act, or if the Company is not required to file information, documents, or reports pursuant to either of such sections, then to deliver to the Holder, in accordance with rules and regulations prescribed from time to time by the SEC, such of the supplementary and periodic information, documents, and reports which may be required pursuant to Section 13 of the Exchange Act; or, in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations. At any time when the Company is not subject to Section 13 or 15(d) of the Exchange Act, upon request of Holder and prospective purchasers of this Note or the shares issuable upon conversion hereof, the Company will promptly furnish or cause to be furnished to such Holder and prospective purchasers, copies of the information required to be delivered to such Holder and prospective purchasers of such securities pursuant to Rule 144A(d)(4) under the Securities Act (or any successor provision thereto) in order to permit compliance with Rule 144A in connection with resales by such holders of such securities. The Company will pay the expenses of printing and distributing to such holders and prospective purchasers all such documents. Delivery of such reports, information and documents to the Holder is for informational purposes only and the Holder's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder. Holder acknowledges that the Company's provision of such documents on the EDGAR website shall be deemed "delivery" of said documents for purposes of this Section 14(d).

(e) Waiver of Usury Defense. The Company covenants (to the extent that it may lawfully do so) that it shall not assert, plead (as a defense or otherwise) or in any manner whatsoever claim (and shall actively resist any attempt to compel it to assert, plead or claim) in any action, suit or proceeding that the interest rate on the Notes violates present or future usury or other laws relating to the interest payable on any Indebtedness and shall not otherwise avail itself (and shall actively resist any attempt to compel it to avail itself) of the benefits or advantages of any such laws.

(f) Registration Rights. The Company agrees that the Holders from time to time of Registrable Securities (as defined in the Registration Rights Agreement, dated July 28, 2009 by and among the Company and the investor signatories thereto, as may be amended and/or restated from time to time (the "**Registration Rights Agreement**") are entitled to the benefits of the Registration Rights Agreement. Further, if (i) the Registration Statement

(as defined in Registration Rights Agreement) required by Section 2(a) of the Registration Rights Agreement, covering the Registrable Securities required to be covered thereby is (A) not filed with the SEC on or before thirty (30) days after the Closing Date (as defined in Registration Rights Agreement) (a "**Filing Failure**") or (B) not declared effective by the SEC on or before the date that is ninety (90) days (one hundred and twenty (120) days if the Registration Statement is reviewed by the SEC) after the Closing Date (an "**Effectiveness Failure**") or (ii) after the effective date of such Registration Statement, after the second (2nd) consecutive Business Day (other than during an allowable blackout period pursuant to Section 3(g) of the Registration Rights Agreement ("**Blackout Period**")) on which sales of all of the Registrable Securities required to be included on such Registration Statement cannot be made pursuant to such Registration Statement (including, without limitation, because of a failure to keep such Registration Statement effective, to disclose such information as is necessary for sales to be made pursuant to such Registration Statement or to maintain the listing of the Common Stock) (a "**Maintenance Failure**"), then, as relief for the damages to any Holder by reason of any such delay in or reduction of its ability to sell the Registrable Securities, the Company shall pay to each Holder of Registrable Securities relating to such Registration Statement an amount in cash equal to (A) one percent (1.0%) of the aggregate Principal amount of such Holder's Notes relating to the Registrable Securities included in such Registration Statement on each of the following dates: (i) the day of a Filing Failure; (ii) the day of an Effectiveness Failure; and (iii) the initial day of a Maintenance Failure, and (B) one percent (1.0%) of the aggregate Principal amount of such Holder's Notes relating to the Registrable Securities included in such Registration Statement on each of the following dates: (i) on every thirtieth (30th) day after the initial day of a Filing Failure (prorated for periods totaling less than thirty (30) days) until such Filing Failure is cured; (ii) on every thirtieth (30th) day after the initial day of an Effectiveness Failure (prorated for periods totaling less than thirty (30) days) until such Effectiveness Failure is cured; (iii) on every thirtieth (30th) day after the initial day of a Maintenance Failure (prorated for periods totaling less than thirty (30) days) until such Maintenance Failure is cured. The payments to which a Holder shall be entitled pursuant to this Section 14(f) are referred to herein as "**Registration Default Payments**." Registration Default Payments shall be paid on the earlier of (I) the last day of the calendar month during which such Registration Default Payments are incurred and (II) the third (3rd) Business Day after the event or failure giving rise to the Registration Default Payments is cured. In the event the Company fails to make Registration Default Payments in a timely manner, such Registration Default Payments shall bear interest at the rate of one and one-half percent (1.5%) per month (prorated for partial months) until paid in full. If the Company has declared a Blackout Period, a Maintenance Failure shall be deemed not to have occurred and be continuing in relation to the Registration Statement during the period specified in Section 3(g) of the Registration Rights Agreement. Registration Default Payments shall be payable from the first day any Blackout Period exceeds the period specified in Section 3(g) of the Registration Rights Agreement. Registration Default Payments shall cease to accrue at the end of the Effectiveness Period (as defined in Registration Rights Agreement); provided that the foregoing shall not affect the Company's obligation to make Registration Default Payments for any period prior to such time. Whenever in this Note there is mentioned, in any context, the payment of interest on, or in respect of, any Note, such mention shall be deemed to include

mention of the payment of liquidated damages on Notes constituting Registrable Securities as contemplated in the Registration Rights Agreement to the extent that, in such context, such liquidated damages are, were or would be payable in respect thereof pursuant to

this Section 14(f). For the avoidance of doubt, the Registrable Securities required to be included in any Registration Statement referred to in this Section 14(f) shall be determined according to the provisions of the Registration Rights Agreement, including all references to exceptions therein in such provisions related to the "Rule 415 Amount," as applicable.

(g) Compliance With Laws. The Company and its Subsidiaries shall at all times be in compliance with the Foreign Corrupt Practices Act; the PATRIOT Act, and all other applicable U.S. and non-U.S. anti-money laundering laws and regulations; and the laws, regulations and Executive Orders and sanctions programs administered by the OFAC, including, without limitation, the Anti-Money Laundering/OFAC Laws.

(15) VOTE TO ISSUE, OR CHANGE THE TERMS OF, NOTES. Any provision of this Note may be amended, waived or modified and, prior to the Closing under the Note and Warrant Purchase Agreement, this Note may be terminated, upon the written consent of the Company and the Required Holders. Neither the Company nor any of its Subsidiaries will, directly or indirectly, pay or cause to be paid any consideration, whether by way of Interest, fees or otherwise, to any Holder for or as inducement to any consent, waiver or amendment of any of the terms or provisions of the Notes unless such consideration is offered to be paid or is paid to all Holders (on a pro rata basis in accordance with each Holder's percentage ownership of then outstanding Notes). So long as any Notes remain outstanding, at no time shall the Company or any of its Subsidiaries, directly or indirectly, purchase or offer to purchase any of the outstanding Notes or exchange or offer to exchange for any consideration (including, without limitation, for cash, securities, property or otherwise) any outstanding Notes unless the Company or such Subsidiary, as applicable, purchases, offers to purchase, exchanges or offers to exchange the outstanding Notes of all of the Holders for the same consideration (on a pro rata basis in accordance with each Holder's percentage ownership of then outstanding Notes) and on identical terms.

(16) TRANSFER. This Note and the shares of Common Stock issuable upon conversion of this Note may not be offered for sale, sold, transferred or assigned (i) in the absence of (a) an effective registration statement for this Note or the shares of Common Stock issuable upon conversion of this Note, or (b) an opinion of counsel (selected by the Holder and reasonably acceptable to the Company), in a form reasonable acceptable to the Company, that this Note and the shares of Common Stock issuable upon conversion of this Note may be offered for sale, sold, assigned or transferred pursuant to an exemption from registration; provided that such opinion of counsel shall not be required in connection with any such sale, assignment or transfer to an institutional accredited investor that is prior to such sale, assignment or transfer is a holder of Additional Notes or an affiliate of the Holder, or (c) in the case of a Holder resident in Canada or otherwise subject to the provincial securities laws of Canada, a prospectus qualifying the distribution of this Note or the shares of Common Stock issuable upon conversion of this Note or an exemption therefrom, or (ii) the Holder provides the Company with assurance (reasonably satisfactory to the Company) that such Note or the shares of Common Stock issuable upon the conversion of this Note can be sold, assigned or transferred pursuant to Rule 144; provided, however, that in no event may this Note be offered for sale, sold, assigned or transferred to a Competitor. **This Note has been issued pursuant to the Note and Warrant Purchase Agreement, Article Five of which contemplates certain restrictions on voting with**

respect to director nominees. Any assignee or transferee of this Note shall be subject to the restrictions set forth in Article Five of the Note and Warrant Purchase Agreement.

(17) REISSUANCE OF THIS NOTE.

(a) Transfer. This Note is issued in registered form pursuant to Treasury Regulations section 1.871-14(c)(1). The Company (or its agent) will maintain a record of the Holders of the Notes, and of Principal and Interest thereon as required by that regulation. The Note may be transferred or otherwise assigned only by surrender of this Note and issuance of a new Note in accordance with this Section 17, and neither this Note nor any interests therein may be sold, transferred or assigned to any Person except upon satisfaction of the conditions specified in this Section 17. If this Note is to be transferred or assigned, the Holder shall surrender this Note to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Note (in accordance with Section 17(d)), registered as the Holder may request, representing the outstanding Principal being transferred by the Holder and, if less than the entire outstanding Principal is being transferred, a new Note (in accordance with Section 17(d)) to the Holder representing the outstanding Principal not being transferred. The Holder and any assignee, by acceptance of this Note, acknowledge and agree that, by reason of the provisions of Section 3(c)(iii) following conversion or redemption of any portion of this Note, the outstanding Principal represented by this Note may be less than the Principal stated on the face of this Note.

(b) Lost, Stolen or Mutilated Note. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Note, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form and, in the case of mutilation, upon surrender and cancellation of this Note, the Company shall execute and deliver to the Holder a new Note (in accordance with Section 17(d)) representing the outstanding Principal.

(c) Note Exchangeable for Different Denominations. This Note is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Note or Notes (in accordance with Section 17(d) and in Principal amounts of at least $100,000) representing in the aggregate the outstanding Principal of this Note, and each such new Note will represent such portion of such outstanding Principal as is designated by the Holder at the time of such surrender.

(d) Issuance of New Notes. Whenever the Company is required to issue a new Note pursuant to the terms of this Note, such new Note (i) shall be of like tenor with this Note, (ii) shall represent, as indicated on the face of such new Note, the Principal remaining outstanding (or in the case of a new Note being issued pursuant to Section 17(a) or Section 17(c), the Principal designated by the Holder which, when added to the principal represented by the other new Notes issued in connection with such issuance, does not exceed the Principal remaining outstanding under this Note immediately prior to such issuance of new Notes), (iii) shall have an issuance date, as indicated on the face of such new Note, which is the same as the Issuance Date of this Note, (iv) shall have the same rights and conditions as this Note, and (v) shall represent accrued Interest and Late Charges on the Principal and Interest of this Note, from the Issuance Date.

(18) REMEDIES, CHARACTERIZATIONS, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note and any of the other Transaction Documents at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the Holder's right to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Note. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

(19) PAYMENT OF COLLECTION, ENFORCEMENT AND OTHER COSTS. If (a) this Note is placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding or the Holder otherwise takes action to collect amounts due under this Note or to enforce the provisions of this Note or (b) there occurs any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors' rights and involving a claim under this Note, then the Company shall pay the costs incurred by the Holder for such collection, enforcement or action or in connection with such bankruptcy, reorganization, receivership or other proceeding, including, but not limited to, reasonable attorneys' fees and disbursements.

(20) CONSTRUCTION; HEADINGS. This Note shall be deemed to be jointly drafted by the Company and the initial Holders of this Note and shall not be construed against any person as the drafter hereof. The headings of this Note are for convenience of reference and shall not form part of, or affect the interpretation of, this Note.

(21) FAILURE OR INDULGENCE NOT WAIVER. No failure or delay on the part of the Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

(22) DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Closing Bid Price, the Closing Sale Price, the fair market value of Illiquid Consideration, or, the arithmetic calculation of the Conversion Rate or the Redemption Price, the Company shall submit the disputed determinations or arithmetic calculations via facsimile within three (3) Business Days of receipt, or deemed receipt, of the Conversion Notice or Redemption Notice or other event giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation within five (5) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within one Business Day submit via facsimile (a) the disputed determination of the Closing Bid Price, the Closing Sale Price, or fair market value of Illiquid Consideration, to an independent, reputable investment bank selected by the Company and

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

(23) NOTICES; PAYMENTS.

(a) Notices. Whenever notice is required to be given under this Note, unless otherwise provided herein, such notice shall be given in accordance with the Note and Warrant Purchase Agreement. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Note, including in reasonable detail a description of such action and the reason therefore. Without limiting the generality of the foregoing, the Company will give written notice to the Holder of any adjustment of the Conversion Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment.

(b) Payments. Whenever any payment of cash is to be made by the Company to any Person pursuant to this Note, such payment shall be made in lawful money of the United States of America by a check drawn on the account of the Company and sent via overnight courier service to such Person at such address as previously provided to the Company in writing (which address, in the case of each of the initial Holders of this Note, shall initially be as set forth on the Schedule of Holders attached to the Note and Warrant Purchase Agreement); provided that the Holder may elect to receive a payment of cash via wire transfer of immediately available funds by providing the Company with prior written notice setting out such request and the Holder's wire transfer instructions. Whenever any amount expressed to be due by the terms of this Note is due on any day which is not a Business Day, the same shall instead be due on the next succeeding day which is a Business Day and, in the case of any Interest Date which is not the date on which this Note is paid in full, the extension of the due date thereof shall not be taken into account for purposes of determining the amount of Interest due on such date. Any amount of Principal or other amounts due under the this Note or the Transaction Documents, other than Interest, which is not paid when due shall result in a late charge being incurred and payable by the Company in an amount equal to interest on such amount at the rate of five percent (5%) per annum from the date such amount was due until the same is paid in full ("**Late Charge**").

(24) CANCELLATION. After all Principal, accrued Interest and other amounts at any time owed on this Note have been paid in full, this Note shall automatically be deemed canceled, shall be surrendered to the Company for cancellation and shall not be reissued.

(25) WAIVER OF NOTICE. To the extent permitted by law, the Company hereby waives demand, notice, presentment, protest and all other demands and notices (other than the notices expressly provided for in this Note) in connection with the delivery, acceptance, default or enforcement of this Note and the Note and Warrant Purchase Agreement.

(26) GOVERNING LAW. This Note shall be construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and

performance of this Note shall be governed by, the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Delaware.

(27) CERTAIN DEFINITIONS. For purposes of this Note, the following terms shall have the following meanings:

(i) "**Bloomberg**" means Bloomberg Financial Markets.

(ii) "**Business Day**" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

(iii) "**Change of Control**" means any Fundamental Transaction other than (A) a consolidation or merger with or into another Person in which the beneficial owners of the Company's then outstanding voting securities immediately prior to such transaction beneficially own securities representing fifty percent (50%) or more of the aggregate voting power of then outstanding voting securities of the resulting or acquiring corporation (or any parent thereof), or their equivalent if other than a corporation, in such transaction, or (B) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company.

(iv) "**Closing Bid Price**" and "**Closing Sale Price**" mean, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or last trade price, respectively, of such security prior to 4:00 p.m., New York Time, as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, 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 (formerly the National Quotations Bureau, Inc.). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, 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 23. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

(v) "**Common Stock**" means the shares of the Company's common stock, par value $0.0001 per share, and any other securities of the Company which may be issued or issuable with respect to, in exchange for, or in substitution of, such shares of

common stock (including without limitation, by way of recapitalization, reclassification, reorganization, merger or otherwise).

(vi) "**Competitor**" means any Person, company or other organization, however organized, conducting business anywhere in the world that is directly competitive with the business of the Company.

(vii) "**Contingent Obligation**" means, as to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to any indebtedness, lease, dividend or other obligation of another Person if the primary purpose or intent of the Person incurring such liability, or the primary effect thereof, is to provide assurance to the obligee of such liability that such liability will be paid or discharged, or that any agreements relating thereto will be complied with, or that the holders of such liability will be protected (in whole or in part) against loss with respect thereto.

(viii) "**Continuing Directors**" means, as of any date of determination, any member of the Board of Directors who (i) was a member of such Board of Directors on the Issuance Date or (ii) becomes a member of such Board of Directors subsequent to that date and was appointed, nominated for election or elected to such Board of Directors with the approval of a majority of the Continuing Directors who were members of such Board of Directors at the time of such appointment, nomination or election.

(ix) "**Convertible Securities**" means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for Common Stock.

(x) "**Eligible Market**" means The New York Stock Exchange, Inc. ("NYSE"), including the NYSE Amex, or Nasdaq.

(xi) "**Exchange Act**" means the United States Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

(xii) "**Fundamental Transaction**" means (1) that the Company shall, directly or indirectly, in one or more related transactions, (a) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Person or Subsidiary of another Person, or (b) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company to another Person, or (c) be the subject of a purchase, tender or exchange offer that is accepted by the holders of more than the 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (d) consummate a stock 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 or parent of such other Person acquires more than the 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 purchase agreement or other business combination), (2) any time the Company's Continuing

Directors do not constitute a majority of the Company's board of directors (or, if applicable, a Successor Entity"), or (3) a Termination of Trading.

(xiii) "**GAAP**" means United States generally accepted accounting principles, consistently applied or successor conventions.

(xiv) "**Illiquid Consideration**" means any non-cash consideration issuable upon conversion of the Notes following a Fundamental Transaction that does not have a readily-ascertainable market value.

(xv) "**Indebtedness**" of any Person means, without duplication (a) all indebtedness for borrowed money, (b) all obligations issued, undertaken or assumed as the deferred purchase price of property or services including, without limitation, "capital leases" in accordance with GAAP (other than trade payables entered into in the ordinary course of business), (c) all reimbursement or payment obligations with respect to letters of credit, surety bonds and other similar instruments, (d) all obligations evidenced by notes, bonds, debentures or similar instruments, including obligations so evidenced incurred in connection with the acquisition of property, assets or businesses, (e) all indebtedness created or arising under any conditional sale or other title retention agreement, or incurred as financing, in either case with respect to any property or assets acquired with the proceeds of such indebtedness (even though the rights and remedies of the seller or bank under such agreement in the event of default are limited to repossession or sale of such property), (f) all monetary obligations under any leasing or similar arrangement which, in connection with GAAP, consistently applied for the periods covered thereby, is classified as a capital lease, (g) any amount raised by acceptance under any acceptance credit facility, (h) receivables sold or discounted (other than within the framework of factoring, securitization or similar transaction where recourse is only to such receivables or proceeds), (i) any derivative transaction, (j) any counter-indemnity obligation in respect of a guarantee, indemnity, bond, standby or documentary letter of credit or any other instrument issued by a bank or financial institution (excluding commercial letters of credit issued in the ordinary course of business), (k) all indebtedness referred to in clauses (a) through (j) above secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any mortgage, lien, pledge, charge, security interest or other encumbrance upon or in any property or assets (including accounts and contract rights) owned by any Person, even though the Person which owns such assets or property has not assumed or become liable for the payment of such indebtedness, and (l) all Contingent Obligations in respect of indebtedness or obligations of others of the kinds referred to in clauses (a) through (k) above.

(xvi) "**Interest Rate**" means ten percent (10%) per annum, provided, however, that upon an Event of Default the Interest Rate shall automatically increase to fourteen percent (14%) per annum.

(xvii) "**Material Subsidiary**" means (a) PharmAthene Canada, Inc., (b) PharmAthene UK Limited or (c) any "Significant Subsidiary," existing from time to time, as such term is defined in Rule 1-02 of Regulation S-X of the Securities Act.

(xviii) "**Note and Warrant Purchase Agreement**" means that certain note and warrant purchase agreement dated as of July 24, 2009 by and among the Company and Holders, as the same may be amended and/or restated from time to time.

(xix) "**Options**" means any rights, warrants or options to subscribe for or purchase Common Stock or Convertible Securities.

(xx) "**Person**" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(xxi) "**Principal Market**" means the principal stock exchange or trading market for the Common Stock, if any.

(xxii) "**Reclassification**" means any reclassification or change of shares of Common Stock issuable upon conversion of the Notes (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination).

(xxiii) "**Required Holders**" means the Holders of Notes representing at least a majority of the aggregate Principal amount of the Notes then outstanding.

(xxiv) "**Rule 144(k)**" means Rule 144(k) promulgated under the Securities Act and any successor provision thereto.

(xxv) "**SEC**" means the United States Securities and Exchange Commission.

(xxvi) "**Securities Act**" means the Securities Act of 1933, as amended.

(xxvii) "**Subsidiary**" means with respect to any Person, any corporation, association or other business entity of which more than 50% of the total voting power of equity entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees or other governing body thereof is at the time owned or controlled by such Person (regardless of whether such equity is owned directly or through one or more other Subsidiaries of such Person or a combination thereof).

(xxviii) "**Successor Entity**" means the Person, which may be the Company, formed by, resulting from or surviving any Fundamental Transaction or the person with which such Fundamental Transaction shall have been made. In the event that the Person resulting from or surviving any Fundamental Transaction is a Subsidiary, Successor Entity shall be the parent of such Subsidiary.

(xxix) "**Termination of Trading**" shall be deemed to have occurred of the shares of Common Stock are not listed on the NYSE, including the NYSE Amex, nor approved for trading on Nasdaq or any other U.S. securities exchange.

(xxx) "**Trading Day**" means any day on which the Common Stock is traded on the Principal Market; provided that "Trading Day" shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York Time).

(xxxi) "**Transaction Documents**" means the Note, the Note and Warrant Purchase Agreement, warrants issued under the Note and Warrant Purchase Agreement, the Registration Rights Agreement and any other documents or agreements executed in connection with the transactions contemplated hereunder or thereunder.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed as of the Issuance Date set out above.

PHARMATHENE, INC.

By: _____
Name:
Title:

EXHIBIT I

PHARMATHENE, INC.
CONVERSION NOTICE

Reference is made to the Convertible Note (the "**Note**") issued to the undersigned by PharmAthene, Inc. (the "**Company**"). In accordance with and pursuant to the Note, the undersigned hereby elects to convert the Conversion Amount (as defined in the Note) of the Note indicated below into shares of Common Stock par value $0.0001 per share (the "**Common Stock**") of the Company, as of the date specified below.

Date of Conversion:

Aggregate Conversion Amount to be converted:

Please confirm the following information:

Conversion Price:

Number of shares of Common Stock to be issued:

Please issue the Common Stock into which the Note is being converted in the following name and to the following address:

Issue to:

Facsimile Number:

Authorization:

By:

Title:

Dated:

Account Number:
(if electronic book entry transfer)

Transaction Code Number:
(if electronic book entry transfer)

THE SECURITIES REPRESENTED HEREBY MAY NOT BE TRANSFERRED UNLESS (I) SUCH SECURITIES HAVE BEEN REGISTERED FOR SALE PURSUANT TO THE SECURITIES ACT OF 1933, AS AMENDED, (II) SUCH SECURITIES MAY BE SOLD WITHOUT RESTRICTION PURSUANT TO RULE 144, OR (III) THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO IT THAT SUCH TRANSFER MAY LAWFULLY BE MADE WITHOUT REGISTRATION UNDER THE SECURITIES ACT OF 1933 OR QUALIFICATION UNDER APPLICABLE STATE SECURITIES LAWS.

SUBJECT TO THE PROVISIONS OF SECTION 10 HEREOF, THIS WARRANT SHALL BE VOID AFTER 5:00 P.M. EASTERN TIME ON JANUARY 28, 2015 (THE "**EXPIRATION DATE**").

No.

PHARMATHENE, INC.

WARRANT TO PURCHASE SHARES OF

COMMON STOCK, PAR VALUE $0.0001 PER SHARE

For VALUE RECEIVED, ("**Warrantholder**"), is entitled to purchase, subject to the provisions of this Warrant, from PharmAthene, Inc., a Delaware corporation ("**Company**"), from and after January 28, 2010 and at any time not later than 5:00 P.M., Eastern time, on the Expiration Date (as defined above), at an exercise price per share equal to $2.50 (the exercise price in effect being herein called the "**Warrant Price**"), shares ("**Warrant Shares**") of the Company's Common Stock, par value $0.0001 per share ("**Common Stock**"). The number of Warrant Shares purchasable upon exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time as described herein. This Warrant is being issued pursuant to the Note and Warrant Purchase Agreement, dated as of July 24, 2009, as the same may be amended and/or restated from time to time (the "**Purchase Agreement**"), among the Company and the initial holders of the Company Warrants (as defined below). Capitalized terms used herein have the respective meanings ascribed thereto in the Note Warrant and Purchase Agreement unless otherwise defined herein.

Section 1. Registration. The Company shall maintain books for the transfer and registration of the Warrant. Upon the initial issuance of this Warrant, the Company shall issue and register the Warrant in the name of the Warrantholder.

Section 2. Transfers. As provided herein, this Warrant may be transferred only pursuant to a registration statement filed under the Securities Act of 1933, as amended (the "**Securities Act**"), or an exemption from such registration. Subject to such restrictions, the Company shall transfer this Warrant from time to time upon the books to be maintained by the Company for that purpose, upon surrender hereof for transfer, properly endorsed or accompanied by appropriate instructions for transfer and such other documents as may be reasonably required by the Company, including, if required by the Company, an opinion of its counsel to the effect that such transfer is exempt from the registration requirements of the Securities Act, to establish that such transfer is being made in accordance with the terms hereof, and a new Warrant shall be issued to the transferee and the surrendered Warrant shall be canceled by the Company.

Section 3. Exercise of Warrant. Subject to the provisions hereof, the Warrantholder may exercise this Warrant, in whole or in part, at any time from and after January 28, 2010 and prior to its expiration upon surrender of the Warrant, together with delivery of a duly executed Warrant exercise form, in the form attached hereto as Appendix A (the "**Exercise Agreement**") and payment by cash, certified check or wire transfer of funds (or, in certain circumstances, by cashless exercise as provided below) of the aggregate Warrant Price for that number of Warrant Shares then being purchased, to the Company during normal business hours on any business day at the Company's principal executive offices (or such other office or agency of the Company as it may designate by notice to the Warrantholder). The Warrant Shares so purchased shall be deemed to be issued to the Warrantholder or the Warrantholder's designee, as the record owner of such shares, as of the close of business on the date on which this Warrant shall have been surrendered (or the date evidence of loss, theft or destruction thereof and security or indemnity satisfactory to the Company has been provided to the Company), the Warrant Price shall have been paid and the completed Exercise Agreement shall have been delivered. Certificates for the Warrant Shares so purchased shall be delivered to the Warrantholder within a reasonable time, not exceeding three (3) business days, after this Warrant shall have been so exercised. The certificates so delivered shall be in such denominations as may be requested by the Warrantholder and shall be registered in the name of the Warrantholder or such other name as shall be designated by the Warrantholder, as specified in the Exercise Agreement. If this Warrant shall have been exercised only in part, then, unless this Warrant has expired, the Company shall, at its expense, at the time of delivery of such certificates, deliver to the Warrantholder a new Warrant representing the right to purchase the number of shares with respect to which this Warrant shall not then have been exercised. As used herein, "business day" means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business. Each exercise hereof shall constitute the re-affirmation by the Warrantholder that the representations and warranties contained in Section 3 of the Purchase Agreement are true and correct in all material respects with respect to the Warrantholder as of the time of such exercise.

If (1) a certificate representing the Warrant Shares is not delivered to the Warrantholder within three (3) Business Days of the due exercise of this Warrant by the Warrantholder and (2) prior to the time such certificate is received by the Warrantholder, the Warrantholder, or any third party on behalf of the Warrantholder or for the Warrantholder's account, purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Warrantholder of shares represented by such certificate (a "**Buy-In**"), then the Company shall pay in cash to the Warrantholder (for costs incurred either directly by such Warrantholder or on behalf of a third party) the amount by which the total purchase price paid for Common Stock as a result of the Buy-In (including brokerage commissions, if any) exceeds the proceeds received by such Warrantholder as a result of the sale to which such Buy-In relates. The Warrantholder shall provide the Company written notice indicating the amounts payable to the Warrantholder in respect of the Buy-In.

Section 4. Compliance with the Securities Act. Except as provided in the Purchase Agreement, the Company may cause the legend set forth on the first page of this Warrant to be set forth on each Warrant, and a similar legend on any security issued or issuable upon exercise of this Warrant, unless counsel for the Company is of the opinion as to any such security that such legend is unnecessary.

Section 5. Payment of Taxes. The Company will pay any documentary stamp taxes attributable to the initial issuance of Warrant Shares issuable upon the exercise of this Warrant; provided, however, that the Company shall not be required to pay any tax or taxes which may be payable in respect of any transfer involved in the issuance or delivery of any certificates for Warrant Shares in a name other than that of the Warrantholder in respect of which such shares are issued, and in such case, the Company shall not be required to issue or deliver any certificate for Warrant Shares or any Warrant until the person requesting the same has paid to the Company the amount of such tax or has established to the Company's reasonable satisfaction that such tax has been paid. The Warrantholder shall be responsible for income taxes due under federal, state or other law, if any such tax is due.

Section 6. Mutilated or Missing Warrants. In case this Warrant shall be mutilated, lost, stolen, or destroyed, the Company shall issue in exchange and substitution of and upon surrender and cancellation of the mutilated Warrant, or in lieu of and substitution for the Warrant lost, stolen or destroyed, a new Warrant of like tenor and for the purchase of a like number of Warrant Shares, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction of the Warrant, and with respect to a lost, stolen or destroyed Warrant, reasonable indemnity or bond with respect thereto, if requested by the Company.

Section 7. Reservation of Common Stock. The Company hereby represents and warrants that there have been reserved, and the Company shall at all applicable times keep reserved until issued (if necessary) as contemplated by this Section 7, out of the authorized and unissued shares of Common Stock, sufficient shares to provide for the exercise of the rights of purchase represented by this Warrant. The Company agrees that all Warrant Shares issued upon due exercise of this Warrant shall be, at the time of delivery of the certificates for such Warrant Shares, duly authorized, validly issued, fully paid and non-assessable shares of Common Stock of the Company.

Section 8. Adjustments. Subject and pursuant to the provisions of this Section 8, the Warrant Price and number of Warrant Shares subject to this Warrant shall be subject to adjustment from time to time as set forth hereinafter.

(a) If the Company shall, at any time or from time to time while this Warrant is outstanding, pay a dividend or make a distribution on its Common Stock in shares of Common Stock, subdivide its outstanding shares of Common Stock into a greater number of shares or combine its outstanding shares of Common Stock into a smaller number of shares or issue by reclassification of its outstanding shares of Common Stock any shares of its capital stock (including any such reclassification in connection with a consolidation or merger in which the Company is the continuing corporation), then (i) the Warrant Price in effect immediately prior to the date on which such change shall become effective shall be adjusted by multiplying such Warrant Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such change and the denominator of which shall be the number of shares of Common Stock outstanding immediately after giving effect to such change and (ii) the number of Warrant Shares purchasable upon exercise of this Warrant shall be adjusted by multiplying the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior to the date on which such change shall become effective by a fraction, the numerator of which is shall be the Warrant Price in effect immediately prior to the date on which such change shall become effective and the denominator of which shall be the

Warrant Price in effect immediately after giving effect to such change, calculated in accordance with clause (i) above. Such adjustments shall be made successively whenever any event listed above shall occur.

(b) If any capital reorganization, reclassification of the capital stock of the Company, consolidation or merger of the Company with another corporation in which the Company is not the survivor, or sale, transfer or other disposition of all or substantially all of the Company's assets to another corporation shall be effected, then, as a condition of such reorganization, reclassification, consolidation, merger, sale, transfer or other disposition, lawful and adequate provision shall be made whereby each Warrantholder shall thereafter have the right to purchase and receive upon the basis and upon the terms and conditions herein specified and in lieu of the Warrant Shares immediately theretofore issuable upon exercise of this Warrant, such shares of stock, securities or assets as would have been issuable or payable with respect to or in exchange for a number of Warrant Shares equal to the number of Warrant Shares immediately theretofore issuable upon exercise of this Warrant, had such reorganization, reclassification, consolidation, merger, sale, transfer or other disposition not taken place, and in any such case appropriate provision shall be made with respect to the rights and interests of each Warrantholder to the end that the provisions hereof (including, without limitation, provision for adjustment of the Warrant Price) shall thereafter be applicable, as nearly equivalent as may be practicable in relation to any shares of stock, securities or assets thereafter deliverable upon the exercise hereof. The Company shall not effect any such consolidation, merger, sale, transfer or other disposition unless prior to or simultaneously with the consummation thereof the successor corporation (if other than the Company) resulting from such consolidation or merger, or the corporation purchasing or otherwise acquiring such assets or other appropriate corporation or entity shall assume the obligation to deliver to the Warrantholder, at the last address of the Warrantholder appearing on the books of the Company, such shares of stock, securities or assets as, in accordance with the foregoing provisions, the Warrantholder may be entitled to purchase, and the other obligations under this Warrant. The provisions of this paragraph (b) shall similarly apply to successive reorganizations, reclassifications, consolidations, mergers, sales, transfers or other dispositions.

(c) In case the Company shall fix a payment date for the making of a distribution to all holders of Common Stock (including any such distribution made in connection with a consolidation or merger in which the Company is the continuing corporation) of evidences of indebtedness or assets (other than cash dividends or cash distributions payable out of consolidated earnings or earned surplus or dividends or distributions referred to in Section 8(a)), or subscription rights or warrants, the Warrant Price to be in effect after such payment date shall be determined by multiplying the Warrant Price in effect immediately prior to such payment date by a fraction, the numerator of which shall be the total number of shares of Common Stock outstanding multiplied by the Market Price (as defined below) per share of Common Stock immediately prior to such payment date, less the fair market value (as determined by the Company's Board of Directors in good faith) of said assets or evidences of indebtedness so distributed, or of such subscription rights or warrants, and the denominator of which shall be the total number of shares of Common Stock outstanding multiplied by such Market Price per share of Common Stock immediately prior to such payment date. "**Market Price**" as of a particular date (the "**Valuation Date**") shall mean the following: (a) if the Common Stock is then listed on the NYSE Amex or any other national stock exchange, the closing sale price of one share of Common Stock on such exchange on the last trading day prior to the Valuation Date; (b) if the

Common Stock is then quoted on the National Association of Securities Dealers, Inc. OTC Bulletin Board (the "**Bulletin Board**") or such similar quotation system or association, the closing sale price of one share of Common Stock on the Bulletin Board or such other quotation system or association on the last trading day prior to the Valuation Date or, if no such closing sale price is available, the average of the high bid and the low asked price quoted thereon on the

last trading day prior to the Valuation Date; or (c) if the Common Stock is not then listed on a national stock exchange or quoted on the Bulletin Board or such other quotation system or association, the fair market value of one share of Common Stock as of the Valuation Date, as determined in good faith by the Board of Directors of the Company and the Warrantholder. If the Common Stock is not then listed on a national securities exchange, the Bulletin Board or such other quotation system or association, the Board of Directors of the Company shall respond promptly, in writing, to an inquiry by the Warrantholder prior to the exercise hereunder as to the fair market value of a share of Common Stock as determined by the Board of Directors of the Company. In the event that the Board of Directors of the Company and the Warrantholder are unable to agree upon the fair market value in respect of subpart (c) of this paragraph, the Company and the Warrantholder shall jointly select an appraiser, who is experienced in such matters. The decision of such appraiser shall be final and conclusive, and the cost of such appraiser shall be borne equally by the Company and the Warrantholder. Such adjustment shall be made successively whenever such a payment date is fixed.

(d) An adjustment to the Warrant Price shall become effective immediately after the payment date in the case of each dividend or distribution and immediately after the effective date of each other event which requires an adjustment.

(e) In the event that, as a result of an adjustment made pursuant to this Section 8, the Warrantholder shall become entitled to receive any shares of capital stock of the Company other than shares of Common Stock, the number of such other shares so receivable upon exercise of this Warrant shall be subject thereafter to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Warrant Shares contained in this Warrant.

(f) To the extent permitted by applicable law and the listing requirements of any stock market or exchange on which the Common Stock is then listed, the Company from time to time may decrease the Warrant Price by any amount for any period of time if the period is at least twenty (20) days, the decrease is irrevocable during the period and the Board shall have made a determination that such decrease would be in the best interests of the Company, which determination shall be conclusive. Whenever the Warrant Price is decreased pursuant to the preceding sentence, the Company shall provide written notice thereof to the Warrantholder at least five (5) days prior to the date the decreased Warrant Price takes effect, and such notice shall state the decreased Warrant Price and the period during which it will be in effect.

Section 9. Fractional Interest. The Company shall not be required to issue fractions of Warrant Shares upon the exercise of this Warrant. If any fractional share of Common Stock would, except for the provisions of the first sentence of this Section 9, be deliverable upon such exercise, the Company, in lieu of delivering such fractional share, shall pay to the exercising Warrantholder an amount in cash equal to the Market Price of such fractional share of Common Stock on the date of exercise.

Section 10. Extension of Expiration Date. If the Company fails to cause any Registration Statement covering Registrable Securities (as defined in the Registration Rights Agreement) to be declared effective prior to the applicable dates set forth therein, or if any of the events specified in Section 2(c)(ii) of the Registration Rights Agreement occurs, and the Blackout Period (as defined in the Registration Rights Agreement) (whether alone, or in combination with any other Blackout Period) continues for more than 60 days in any 12 month period, or for more than a total of 90 days, then the Expiration Date of this Warrant shall be extended one day for each day beyond the 60-day or 90-day limits, as the case may be, that the Blackout Period continues.

Section 11. Benefits. Nothing in this Warrant shall be construed to give any person, firm or corporation (other than the Company and the Warrantholder) any legal or equitable right, remedy or claim, it being agreed that this Warrant shall be for the sole and exclusive benefit of the Company and the Warrantholder.

Section 12. Notices to Warrantholder. Upon the happening of any event requiring an adjustment of the Warrant Price, the Company shall promptly give written notice thereof to the Warrantholder at the address appearing in the records of the Company, stating the adjusted Warrant Price and the adjusted number of Warrant Shares resulting from such event and setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Failure to give such notice to the Warrantholder or any defect therein shall not affect the legality or validity of the subject adjustment.

Section 13. Identity of Transfer Agent. The Transfer Agent for the Common Stock is Continental Stock Transfer and Trust Company. Upon the appointment of any subsequent transfer agent for the Common Stock or other shares of the Company's capital stock issuable upon the exercise of the rights of purchase represented by the Warrant, the Company will mail to the Warrantholder a statement setting forth the name and address of such transfer agent.

Section 14. Notices. Unless otherwise provided, any notice required or permitted under this Warrant shall be given in writing and shall be deemed effectively given as hereinafter described (i) if given by personal delivery, then such notice shall be deemed given upon such delivery, (ii) if given by telex or facsimile, then such notice shall be deemed given upon receipt of confirmation of complete transmittal, (iii) if given by mail, then such notice shall be deemed given upon the earlier of (A) receipt of such notice by the recipient or (B) three days after such notice is deposited in first class mail, postage prepaid, and (iv) if given by an internationally recognized overnight air courier, then such notice shall be deemed given one business day after delivery to such carrier. All notices shall be addressed as follows: if to the Warrantholder, at its address as set forth in the Company's books and records and, if to the Company, at the address as follows, or at such other address as the Warrantholder or the Company may designate by ten days' advance written notice to the other:

If to the Company:

PharmAthene, Inc.
One Park Place, Suite 450
Annapolis, MD 21401
Attention: President
Fax: (410) 269-2601

With a copy to:

Sonnenschein Nath & Rosenthal LLP
101 JFK Parkway
Short Hills, NJ 07078
Attention: Jeffrey A. Baumel
Fax: (973) 912-7172

Section 15. Registration Rights. The initial Warrantholder is entitled to the benefit of certain registration rights with respect to the shares of Common Stock issuable upon the exercise of this Warrant as provided in the Registration Rights Agreement, and any subsequent Warrantholder may be entitled to such rights.

Section 16. Successors. All the covenants and provisions hereof by or for the benefit of the Warrantholder shall bind and inure to the benefit of its respective successors and permitted assigns hereunder.

Section 17. Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. This Warrant shall be governed by, and construed in accordance with, the internal laws of the State of Delaware, without reference to the choice of law provisions thereof. The Company and, by accepting this Warrant, the Warrantholder, each irrevocably submits to the exclusive jurisdiction of the courts of the State of Delaware and the United States District Court for the District of Delaware for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Warrant and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Warrant. The Company and, by accepting this Warrant, the Warrantholder, each irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. The Company and, by accepting this Warrant, the Warrantholder, each irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **EACH OF THE COMPANY AND, BY ITS ACCEPTANCE HEREOF, THE WARRANTHOLDER HEREBY WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS WARRANT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.**

Section 18. Cashless Exercise. Notwithstanding any other provision contained herein to the contrary, from and after the six-month anniversary of the Closing Date and so long as the Company is required under the Registration Rights Agreement to have effected the registration

of the Warrant Shares for resale to the public pursuant to a Registration Statement (as such term is defined in the Registration Rights Agreement), if the Warrant Shares may not be freely sold to the public for any reason (including, but not limited to, the failure of the Company to have effected the registration of the Warrant Shares or to have a current prospectus available for delivery or otherwise, but excluding the period of any Allowed Delay (as defined in the Registration Rights Agreement), the Warrantholder may elect to receive, without the payment by the Warrantholder of the aggregate Warrant Price in respect of the shares of Common Stock to be acquired, shares of Common Stock of equal value to the value of this Warrant, or any specified portion hereof, by the surrender of this Warrant (or such portion of this Warrant being so exercised) together with a Net Issue Election Notice, in the form annexed hereto as Appendix B, duly executed, to the Company. Thereupon, the Company shall issue to the Warrantholder such number of fully paid, validly issued and nonassessable shares of Common Stock as is computed using the following formula:

$$X = \frac{Y\,(A - B)}{A}$$

where

X = the number of shares of Common Stock to which the Warrantholder is entitled upon such cashless exercise;

Y = the total number of shares of Common Stock covered by this Warrant for which the Warrantholder has surrendered purchase rights at such time for cashless exercise (including both shares to be issued to the Warrantholder and shares as to which the purchase rights are to be canceled as payment therefor);

A = the "Market Price" of one share of Common Stock as at the date the net issue election is made; and

B = the Warrant Price in effect under this Warrant at the time the net issue election is made.

Section 19. [Intentionally Omitted].

Section 20. No Rights as Shareholder. Prior to the exercise of this Warrant, the Warrantholder shall not have or exercise any rights as a shareholder of the Company by virtue of its ownership of this Warrant.

Section 21. Amendment; Waiver; Termination. This Warrant is one of a series of Warrants of like tenor issued by the Company pursuant to the Purchase Agreement and initially covering an aggregate of up to 2,572,775 shares of Common Stock (collectively, the "**Company Warrants**"). Any term of this Warrant may be amended or waived (including the adjustment provisions included in Section 8 of this Warrant) and the Warrant may be terminated upon the written consent of the Company and the holders of Company Warrants representing at least a majority of the number of shares of Common Stock then subject to all outstanding Company Warrants; provided, that (x) any such amendment or waiver or termination must apply to all Company Warrants; and (y) except as provided in the adjustment provisions of this Warrant, the number of Warrant Shares subject to this Warrant, the Warrant Price and the Expiration Date

may not be amended, and the right to exercise this Warrant may not be altered or waived, without the written consent of the Warrantholder.

Section 22. Section Headings. The section headings in this Warrant are for the convenience of the Company and the Warrantholder and in no way alter, modify, amend, limit or restrict the provisions hereof.

IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed, as of the day of July, 2009.

PHARMATHENE, INC.

By: _____
Name:
Title:

APPENDIX A
PHARMATHENE, INC.
WARRANT EXERCISE FORM

To PharmAthene, Inc.:

The undersigned hereby irrevocably elects to exercise the right of purchase represented by the within Warrant ("**Warrant**") for, and to purchase thereunder by the payment of the Warrant Price and surrender of the Warrant, shares of Common Stock ("**Warrant Shares**") provided for therein, and requests that certificates for the Warrant Shares be issued as follows:

Name

Address

Federal Tax ID or Social Security No.

and delivered by (certified mail to the above address, or
(electronically (provide DWAC
Instructions:), or
(other (specify):
).

and, if the number of Warrant Shares shall not be all the Warrant Shares purchasable upon exercise of the Warrant, that a new Warrant for the balance of the Warrant Shares purchasable upon exercise of this Warrant be registered in the name of the undersigned Warrantholder or the undersigned's Assignee as below indicated and delivered to the address stated below.

Dated: ,

Signature: _____

Note: The signature must correspond with the name of the Warrantholder as written on the first page of the Warrant in every particular, without alteration or enlargement or any change whatever, unless the Warrant has been assigned.

_____
Name (please print)

Address

Federal Identification or
Social Security No.

Assignee:

APPENDIX B
PHARMATHENE, INC.
NET ISSUE ELECTION NOTICE

To: PharmAthene, Inc.

Date:[ ]

The undersigned hereby elects under Section 18 of this Warrant to surrender the right to purchase [ ] shares of Common Stock pursuant to this Warrant and hereby requests the issuance of [ ] shares of Common Stock. The certificate(s) for the shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below.

Signature

Name for Registration

Mailing Address

Exhibit 10.50

Execution Version

NOTE AND WARRANT PURCHASE AGREEMENT

This Note and Warrant Purchase Agreement (this "Agreement"), dated as of July 24, 2009, is made by and among PharmAthene, Inc., a Delaware corporation (the "Company"), and the investors identified on Annex I and Annex II (together with their respective successors and permitted assigns, the "Investors"; the Investors are each individually referred to herein as an "Investor").

WHEREAS, the Company and the Investors are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by the provisions of Regulation D ("Regulation D"), as promulgated by the U.S. Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"); and

WHEREAS, the Investors wish to purchase from the Company, and the Company wishes to sell and issue to the Investors, upon the terms and conditions stated in this Agreement, (i) senior unsecured convertible notes in the form attached hereto as Exhibit A in the initial aggregate Principal amount of up to $19,272,928.08 (the "Notes"), and (ii) warrants to purchase an aggregate of up to 2,569,724 shares of the Company's common stock, $0.0001 per share (the "Common Stock"), at an exercise price per share equal to the closing price of the Common Stock on the NYSE Amex immediately preceding the execution of this Agreement, in the form attached hereto as Exhibit B (the "Warrants," and together with the Notes, the "Closing Securities"); and

WHEREAS, contemporaneous with the sale of the Closing Securities, the parties hereto will execute and deliver a Registration Rights Agreement, in the form attached hereto as Exhibit C (the "Registration Rights Agreement"), pursuant to which the Company will agree to provide certain registration rights under the Act, and the rules and regulations promulgated thereunder, and applicable state securities laws.

NOW, THEREFORE, in consideration of the mutual promises, representations, warranties and covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Investors mutually agree as follows. Capitalized terms used and not otherwise defined herein shall have the meanings given such terms in the Notes.

ARTICLE 1

PURCHASE OF NOTES AND WARRANTS

1.1 Issuance of Closing Securities in Exchange for Old Notes.

(a) Subject to the terms and conditions of this Agreement, on the Closing Date (as defined below), each of the Investors listed in Annex I (each, an "Existing Investor," and collectively, the "Existing Investors") shall severally, and not jointly, purchase, and the Company shall sell and issue to each Existing Investor, the Closing Securities in the respective amounts set forth opposite each such Existing Investor's name on Annex I in exchange (the

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"Exchange") for the Company's existing senior unsecured convertible notes held by each such Existing Investor as set forth on Annex I (collectively, the "Old Notes").

(b) As a result of the Exchange, the Old Notes are hereby cancelled and cease to be outstanding obligations of the Company and all rights of the Existing Investors under the Old Notes, including all rights to payment of principal and interest thereon, are hereby cancelled and terminated in full.

1.2 Issuance of Closing Securities in Exchange for Cash Payment. Subject to the terms and conditions of this Agreement, on the Closing Date, each of the Investors listed in Annex II (each, a "New Investor," and collectively, the "New Investors") shall severally, and not jointly, purchase, and the Company shall sell and issue to each of the New Investors, the Closing Securities in the respective amounts set forth opposite each such New Investor's name on Annex II in exchange for the purchase price set forth opposite each such New Investor's name on Annex II.

1.3 Closing. The closing (the "Closing") of the purchase and sale of the Closing Securities shall take place simultaneously with the execution of this Agreement or such other time as the Company and the Required Holders may mutually agree (the date on which the Closing occurs, the "Closing Date") at the offices of Edwards Angell Palmer & Dodge LLP, 111 Huntington Avenue, Boston, Massachusetts, 02199, or at such other location as the Company and the Required Holders shall mutually agree. At the Closing, the Company shall deliver to each Investor a Note and Warrant, each registered in such name or names as each Investor may designate. On the Closing Date, each Existing Investor shall deliver to the Company its Old Note(s) for cancellation and each New Investor shall pay to the Company an amount equal to the purchase price set forth opposite such New Investor's name on Annex II (payable by wire transfer in same day funds to an account specified by the Company in writing).

ARTICLE 2

REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company represents and warrants to each of the Investors that, except as set forth on the Schedule of Exceptions attached hereto (the "Schedule of Exceptions") the statements contained in this Article II are true and correct as of the Closing Date as though made as of the Closing Date, except to the extent such representations and warranties are specifically made as of a particular date (in which case such representations and warranties are true and correct as of such date). The Schedule of Exceptions shall be arranged in sections and subsections corresponding to the numbered and lettered sections and subsections contained in this Article II, but any information disclosed under any section or subsection of the Schedule of Exceptions shall be deemed to be disclosed into any other section or subsection where such disclosure would be reasonably apparent.

2.1 Organization, Qualifications and Corporate Power. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and, except as set forth in Schedule 2.1, is duly licensed or qualified to transact

business as a foreign corporation and is in good standing in each jurisdiction in which the nature of the business transacted by it or the character of the properties owned or leased by it requires such licensing or qualification. The Company and each of its Subsidiaries has the corporate power and authority to own and hold its properties and to carry on its business as now conducted and as proposed to be conducted, and in the case of the Company, to execute, deliver and perform the Transaction Documents to which it is a party. The Company has the corporate power and authority to issue, sell and deliver the Closing Securities, to issue and deliver the shares of Common Stock issuable upon conversions of the Notes (the "Note Shares") and to issue and deliver the shares of Common Stock issuable upon exercise of the Warrants (the "Warrant Shares").

2.2 Authorization of Agreements, Etc.

(a) The execution and delivery by the Company of the Transaction Documents to which it is a party, the performance by the Company of its obligations thereunder, the issuance, sale and delivery of the Closing Securities by the Company and the reservation of the Note Shares and Warrant Shares by the Company have been duly authorized by all requisite corporate action and will not violate any provision of law, any order of any court or other agency of government, the Certificate of Incorporation of the Company, as amended to date (the "Charter"), or the By-laws of the Company, as amended to date (the "By-laws"), or any provision of any indenture, agreement or other instrument to which the Company or any of its Subsidiaries or any of its properties or assets is bound, or conflict with, result in a breach of or constitute (with due notice or lapse of time or both) a default under any such indenture, agreement or other instrument, or result in the creation or imposition of any lien, charge, restriction, claim or encumbrance of any nature whatsoever upon any of the properties or assets of the Company or any of its Subsidiaries.

(b) The Closing Securities have been duly authorized and, when issued and delivered pursuant to this Agreement, will have been duly executed, issued and delivered and will constitute valid and legally binding obligations of the Company, enforceable in accordance with their terms, subject as to enforcement, to bankruptcy, insolvency, reorganization and other laws of general applicability relating to or affecting creditors' rights and to general equity principles.

(c) The Company has an authorized capitalization and outstanding shares of capital stock as set forth in Schedule 2.2(c), and all of the issued shares of capital stock of the Company have been duly authorized and validly issued and are fully paid and non-assessable; the Note Shares and Warrant Shares initially issuable upon conversion of the Notes and exercise of the Warrants, respectively, have been duly authorized and reserved for issuance and, when issued, delivered and paid for in accordance with the provisions of the Notes and the Warrants, respectively, will be validly issued, fully paid and non-assessable; and the issuance of Note Shares and Warrant Shares upon conversion of the Notes and exercise of the Warrants, respectively, will not be subject to any preemptive or similar rights except as set forth in Schedule 2.2(c).

(d) The designations, powers, preferences, rights, qualifications, limitations and restrictions in respect of each class and series of authorized capital stock of the Company are as set forth in the Company's Charter, and all such designations, powers, preferences, rights, qualifications, limitations and restrictions are valid, binding and enforceable and in accordance with all applicable laws. Except as set forth in Schedule 2.2(d), (i) no Person owns of record or is known to the Company to own beneficially any share of Common Stock, (ii) no subscription, warrant, option, convertible security, or other right (contingent or other) to purchase or otherwise acquire equity securities of the Company or any of its Subsidiaries is authorized or outstanding and (iii) there is no commitment by the Company or any of its Subsidiaries to issue shares, subscriptions, warrants, options, convertible securities, or other such rights or to distribute to holders of any of its equity securities any evidence of indebtedness or asset. Except as provided for in the Company's Charter or as set forth in the attached Schedule 2.2(d), neither the Company nor any of its Subsidiaries has any obligation (contingent or other) to purchase, redeem or otherwise acquire any of its equity securities or any interest therein or to pay any dividend or make any other distribution in respect thereof. Except as set forth in the attached Schedule 2.2(d), to the best of the Company's knowledge there are no voting trusts or agreements, stockholders' agreements, pledge agreements, buy-sell agreements, rights of first refusal, preemptive rights or proxies relating to any securities of the Company or any of its Subsidiaries (whether or not the Company or such Subsidiaries is a party thereto). The warrants issued by the Company in its initial public offering have not been extended or modified since the date of issuance thereof. All of the outstanding securities of the Company were issued in compliance with all applicable federal and state securities laws.

(e) The outstanding shares of Common Stock are listed on the NYSE Amex and the Note Shares and the Warrant Shares will have been approved for listing on the NYSE Amex, subject to notice of issuance, on or before the Closing Date. The transactions contemplated by the Transaction Documents do not require shareholder approval under the rules of the NYSE Amex.

(f) There has not been any change, effect, event or occurrence resulting in a material adverse effect on the business, financial condition or results of operations of the Company that has not been disclosed in the Company's reports filed with the Commission prior to the date of this Agreement.

(g) Except as set forth in Schedule 2.2(g), there are no actions, suits or proceedings at law or in equity or by or before any governmental instrumentality or other agency or regulatory authority now pending, or, to the knowledge of the Company, threatened against the Company which, if adversely determined, would materially and adversely affect the business, assets, operations or condition, financial or otherwise, of the Company. There is no action, suit or proceeding by the Company currently pending or that the Company currently intends to initiate.

ARTICLE 3

REPRESENTATIONS AND WARRANTIES OF THE INVESTORS

Each Investor, severally and not jointly, represents and warrants to the Company that, the statements contained in this Article III are true and correct as of the Closing Date as though made as of the Closing Date, except to the extent such representations and warranties are specifically made as of a particular date (in which case such representations and warranties are true and correct as of such date).

3.1 Investor is an "accredited investor" as defined by Rule 501 of Regulation D, and Investor is capable of evaluating the merits and risks of its investment in the Closing Securities and has the ability and capacity to protect its interests. If Investor is a resident of Canada or otherwise subject to the provincial securities laws of Canada, such Investor is an "accredited investor" (as that term is defined in National Instrument 45 106), was not formed for the specific purpose of and is not being used primarily for the purpose of purchasing and holding the Closing Securities, and is neither a "Limited States Person" (as that term is defined in Rule 902 of Regulation S under the Act) nor purchasing the Closing Securities for the account of a Limited States Person or for resale to a United States person or to a person in the United States.

3.2 Investor understands that, except as provided in the Registration Rights Agreement, the Closing Securities, the Note Shares and the Warrant Shares have not been registered under the Act on the ground that the issuance thereof is exempt under Section 4(2) of the Act and/or Regulation D as a transaction by an issuer not involving any public offering and that, in the view of the Commission, the statutory basis for the exception claimed would not be present if any of the representations and warranties of Investor contained in this Agreement are untrue or, notwithstanding the Investor's representations and warranties, the Investor currently has in mind acquiring any of the Closing Securities for resale upon the occurrence or non-occurrence of some predetermined event.

3.3 Investor is purchasing the Closing Securities and, in the event that the Investor should acquire any Note Shares or Warrant Shares, will be acquiring such Note Shares or Warrant Shares, as applicable, as principal for its own account, and not for the benefit of any other Person, for investment purposes and not with a view to distribution or resale, nor with the intention of selling, transferring or otherwise disposing of all or any part thereof for any particular price, or at any particular time, or upon the happening of any particular event or circumstance, except selling, transferring, or disposing of the Closing Securities, Note Shares and Warrant Shares, as applicable, in full compliance with all applicable provisions of the Act, the rules and regulations promulgated by the Commission thereunder, and applicable state securities laws; and that an investment in the Closing Securities, Note Shares and Warrant Shares is not a liquid investment.

3.4 Investor confirms that Investor has had the opportunity to ask questions of, and receive answers from, the Company or any authorized Person acting on its behalf concerning the Company and its business and to obtain any additional information, to the extent possessed by the Company (or to the extent it could have been acquired by the Company without unreasonable effort or expense) necessary to verify the accuracy of the information received by Investor. In

connection therewith, Investor acknowledges that Investor has had the opportunity to discuss the Company's business, management and financial affairs with the Company's management or any authorized Person acting on its behalf. Investor has received and reviewed all the information concerning the Company and the Closing Securities, both written and oral, that Investor desires. Without limiting the generality of the foregoing, Investor has been furnished with or has had the opportunity to acquire, and to review: all information, both written and oral, that Investor desires with respect to the Company's business, management, financial affairs and prospects. In determining whether to make this investment, Investor has relied solely on Investor's own knowledge and understanding of the Company and its business based upon Investor's own due diligence investigations and the Company's filings with the Commission.

3.5 If the Investor is a resident of Canada or otherwise subject to the provincial securities laws of Canada, such Investor understands and acknowledges that (i) the Closing Securities have not been, and that the Note Shares and Warrant Shares will not be, qualified for distribution under provincial securities laws, (ii) the Closing Securities will be distributed to such Investor pursuant to exemptions from the registration and prospectus filing requirements of applicable provincial securities laws, and (iii) the Closing Securities and if acquired, the Note Shares and Warrant Shares, must be held by such Investor indefinitely unless a subsequent distribution thereof is qualified for distribution under the applicable provincial securities laws, or is exempt from the prospectus registration requirements thereof.

3.6 Investor has all requisite legal and other power and authority to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement. This Agreement constitutes a valid and legally binding obligation of Investor enforceable in accordance with its terms, subject as to enforcement, to bankruptcy, insolvency, reorganization and other laws of general applicability relating to or affecting creditors' rights and to general equity principles.

3.7 Investor has carefully considered and has discussed with its legal, tax, accounting and financial advisors, to the extent the Investor has deemed necessary, the suitability of this investment and the transactions contemplated by this Agreement for the Investor's particular federal, state, provincial, local and foreign tax and financial situation and has independently determined that this investment and the transactions contemplated by this Agreement are a suitable investment for the Investor. Investor understands that it (and not the Company) shall be responsible for Investor's own tax liability that may arise as a result of the investment in the Closing Securities or the transactions contemplated by this Agreement, except as provided in Section 6.1(b).

3.8 Investor acknowledges that an investment in the Closing Securities is speculative and involves a high degree of risk and that Investor can bear the economic risk of the acceptance of the Closing Securities, including a total loss of its investment. Investor recognizes and understands that no federal, state, provincial or foreign agency has recommended or endorsed the purchase of the Closing Securities. Investor acknowledges that it has such knowledge and experience in financial and business matters that Investor is capable of evaluating the merits and risks of an investment in the Closing Securities and of making an informed investment decision with respect thereto.

3.9 Because of the legal restrictions imposed on resale or transfer of the Closing Securities, Investor understands that the Company shall have the right to note stop-transfer instructions in its records, and Investor has been informed of the Company's intention to do so. Any sales, transfers, or other dispositions of the Closing Securities by Investor, if any, will be made in compliance with the Act and any other applicable securities laws, and all applicable rules and regulations promulgated thereunder and the terms of this Agreement.

3.10 Investor acknowledges that Investor has not assigned or transferred any interest or rights under the Old Notes.

3.11 The residency of Investor (or, in the case of a partnership, limited liability company or corporation, such entity's principal place of business) is correctly set forth below Investor's name on Annex I or Annex II, as applicable.

ARTICLE 4

CONDITIONS RELATING TO THE CLOSING

4.1 Conditions to the Obligations of the Investors at the Closing. The several obligations of each Investor to consummate the transactions to be performed by it in connection with the Closing Date are, unless otherwise indicated, subject to the satisfaction of the following conditions as of the Closing Date, unless such conditions are waived by such Investor with respect to the Closing Date:

(a) Approval by Disinterested Directors. This Agreement, the Transaction Documents and the transactions contemplated hereby and thereby shall have been approved by a committee of the Company's Board of Directors consisting solely of one or more disinterested directors.

(b) Approval and Participation by Holders of Old Notes.

(i) Holders of not less than two-thirds (2/3) of the aggregate principal amount of Old Notes shall have approved this Agreement and the transactions contemplated hereby; and

(ii) Holders of not less than fifty percent (50%) of the aggregate principal amount of the Old Notes shall be Existing Investors, and such Existing Investors shall collectively exchange not less than fifty percent (50%) of the aggregate principal amount of the Old Notes outstanding for Notes.

(c) Consents, Permits, and Waivers. The Company shall have obtained any and all approvals, consents, permits and waivers necessary or appropriate for consummation of the transactions contemplated by this Agreement and the other Transaction Documents.

(d) Authorizations. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body that are required in connection with the lawful

issuance and sale of the Closing Securities pursuant to this Agreement shall have been duly obtained and shall be effective on and as of the Closing Date.

(e) Representations, Warranties and Covenants. The representations and warranties made by the Company in Article II hereof and in the other Transaction Documents shall be true and correct when made, and shall be true and correct as of the Closing Date with the same force and effect as if they had been made on and as of that date. The Company shall have performed and complied in all material respects with all covenants and agreements required by this Agreement to be performed or complied with by it on or prior to the Closing Date. As of the Closing Date, Company shall have delivered a certificate to the foregoing effect to the Investors.

(f) Opinion of Counsel to the Company. The Investors shall have received an opinion of counsel to the Company reasonably satisfactory to the Investors.

ARTICLE 5

COVENANTS

5.1 Board of Directors and Committee Designation Rights; Voting Agreement.

(a) The Company shall maintain a Board of Directors consisting of no more than nine (9) individuals and each of the Compensation Committee and Nominating Committee (or other committees serving similar functions) shall have no more than three (3) members. The Designators (as defined below) shall have the right, but not the obligation, to collectively designate up to two (2) Noteholder Directors who shall have the right but not the obligation to serve as members of each such committee of the Company's Board of Directors. At the election of the Designators, all Subsidiaries of the Company shall maintain a Board of Directors which shall include the Noteholder Directors and have no more than nine (9) individuals, except to the extent otherwise required by the laws of the jurisdiction of each Subsidiary's organization.

(b) Each Investor agrees to vote all of his, her or its voting securities (including, but not limited to, the Notes, Note Shares and Warrant Shares) in the Company, whether now owned or hereafter acquired or which such Investor may be empowered to vote (together the "Voting Securities"), from time to time and at all times, in whatever manner shall be necessary to ensure that at each meeting of Investors at which an election of directors is held or pursuant to any written consent of Investors, the following persons (each a "Noteholder Director") shall be elected to the Company's Board of Directors pursuant to Section B of ARTICLE SIXTH of the Company's Charter:

(i) one individual designated by HealthCare Ventures VII, L.P. (or any recipient of all of the Notes held by HealthCare Ventures VII, L.P. as of the date hereof) (the "HCV Designator"), which individual shall initially be James Cavanaugh; and

(ii) one individual designated by MPM BioVentures III, L.P. (or any recipient of all of the Notes held by MPM BioVentures III, L.P. as of the date hereof) (the

"MPM Designator" and together with the HCV Designator, the "Designators"), which individual shall initially be Steven St. Peter.

(c) The Board of Directors of the Company shall nominate such Noteholder Directors and recommend that the Investors vote to elect such Noteholder Directors as directors of the Company and shall fill any vacancies that may arise upon the resignation of any of the Noteholder Directors with a new Noteholder Director designated in accordance with the foregoing Section 5.1.

(d) The Company shall provide at least thirty (30) days' prior written notice of all intended mailings of notices to the Investors for a meeting at which directors are to be elected (or an action by written consent pursuant to which directors are to be elected) to each Designator, and each Designator shall notify the Company in writing, at least ten (10) days prior to such mailing, of the person(s) so designated as nominees for election as directors in accordance with this Section 5.1. If any Designator shall fail to give notice to the Company as provided above, it shall be deemed that such Designator's Noteholder Director then serving as director shall be such Designator's nominee for reelection.

(e) Each Investor also agrees to vote all of his, her or its Voting Securities from time to time and at all times in whatever manner as shall be necessary to ensure that (i) no director elected pursuant to this Section 5.1 of this Agreement may be removed from office other than for cause unless (A) such removal is directed or approved by the Designator entitled under this Section 5.1 to designate that director or (B) the Designator originally entitled to designate such director pursuant to this Section 5.1 is no longer so entitled to designate such director; (ii) any vacancies created by the resignation, removal or death of a Noteholder Director shall be filled pursuant to the provisions of this Section 5.1; and (iii) upon the request of the Designator entitled to designate a director pursuant to this Section 5.1 to remove such director, such director shall be removed. All Investors agree to execute any written consents required to effectuate the obligations of this Agreement, and the Company agrees at the request of any Designator to call a special meeting of Investors for the purpose of electing directors.

(f) The Company shall take such action as is necessary to convene meetings of its Board of Directors and meetings of the Investors for the election of the directors (or to act by written consent) in order to elect and re-elect the Noteholder Directors in accordance with this Section 5.1.

(g) The Company hereby represents and warrants that as of the date hereof the transactions contemplated hereby are not inconsistent with the Company's Charter or By-laws and agrees that until such time as the obligations under this Section 5.1 have expired, the Company will not take any action or amend its Charter or By-laws in a manner inconsistent with or in derogation of this Agreement. The Company shall at the next meeting of stockholders of the Company recommend that the Charter be amended to implement the provisions of this Article V, including, without limitation, to: (A) set a maximum board size of nine members; (B) provide that only two (2) members of the Board are to be elected by at least a majority of the Principal amount of the Notes outstanding, voting as a separate class; and (C)

provide that the Company's Board of Directors shall nominate the Noteholder Directors, as designated by the Designators, pursuant to the terms of this Agreement. Each Investor hereby agrees to vote its Voting Securities in favor of such amendments to the Charter. The Company shall take such action as is reasonably necessary to amend its By-laws to implement the provisions of this Article V and the Charter amendments described in this Section 5.1(g).

(h) The Notes shall not be transferred unless the recipient of such Notes agrees in writing to be bound by the terms hereof.

(i) Each Investor hereby grants to the Secretary of the Company, in the event that such Investor fails to vote its Voting Securities as required by this Agreement, a proxy coupled with an interest in all Voting Securities beneficially owned by such Investor to vote such Voting Securities in accordance with this Section 5.1, which proxy is irrevocable until this Agreement terminates pursuant to its terms or is amended to remove such grant of proxy in accordance with Section 5.1 of this Agreement.

(j) The provisions of this Section 5.1 shall remain in effect at all times while at least thirty percent (30%) of the aggregate Principal amount of the Notes remain outstanding. Upon the date that this Section 5.1 ceases to be in force or effect, the Company shall have the right, without further action or consent by the Investors, to amend its Charter to remove any and all such provisions related to the subject matter of this Section 5.1.

5.2 No Liability for Designation or Election of Directors. No Investor, nor any affiliate of any Investor, shall have any liability as a result of designating a person for election as a director for any act or omission by such designated person in his or her capacity as a director of the Company, nor shall any Investor have any liability as a result of voting for any such designee in accordance with the provisions of this Agreement.

5.3 Observer Rights. Until the earlier of (a) twelve (12) months following the Closing Date and (b) the date on which Baker Brothers Investments and its affiliates ("Baker") no longer holds Notes with an aggregate Principal amount of at least five million dollars ($5,000,000), one representative (an "Observer") to be appointed by Baker shall be entitled to notice of and to attend all meetings of the Company's Board of Directors (which Observer shall be entitled to have expenses reimbursed by the Company as if such Observer were a director of the Company) in a nonvoting observer capacity and, in this respect, the Company shall provide to such Observer copies of all notices, minutes, consents and other materials that it provides to the members of the Board of Directors at the same time and in the same manner as provided to such members ("Observer Rights"); provided, however, that such Observer shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and, provided further, that the Company reserves the right to withhold any information and to exclude such Observer from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in a conflict of interest.

5.4 Registration Rights. The Investors shall have the registration rights set forth in the Registration Rights Agreement, the Warrants and the Notes.

5.5 Listing. Immediately prior to or on the Closing Date, the Company shall secure the listing of all of the Registrable Securities (as defined in the Registration Rights Agreement) upon each national securities exchange and automated quotation system, if any, upon which the Common Stock is then listed (subject to official notice of issuance) and shall maintain such listing of all Registrable Securities from time to time issuable under the terms of the Transaction Documents. The Company shall maintain the Common Stock's authorization for quotation on the principal exchange or market in which it is listed. Neither the Company nor any of its Subsidiaries shall take any action which would be reasonably expected to result in the delisting or suspension of

the Common Stock on the principal market in which it is listed. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 5.5.

5.6 No Extension or Modification of Warrants. From and after the Closing, the Company shall not extend or modify, or agree to extend or modify, the warrants issued by the Company in its initial public offering until they are exercised or expire according to their terms.

5.7 Incurrence of Indebtedness. From and after the Closing, the Company will not, and will not permit any Subsidiary to, create, incur, assume or permit to exist any Indebtedness for borrowed money in an aggregate amount in excess of ten million dollars ($10,000,000) (the "Indebtedness Limit") without the prior written approval of the Required Holders; provided, that (i) Indebtedness that is subordinated in right of payment to the Notes and (ii) customary trade payables incurred in the ordinary course of business shall not be subject to the limitation set forth in this Section 5.7.

5.8 Right of First Refusal of Senior Indebtedness. From and after the Closing and subject to Section 5.7 hereof, in the event that the Company, or any of its Subsidiaries, wishes to create, incur or assume any Indebtedness for borrowed money that is senior or "pari passu" in right of payment to the Notes ("Senior Indebtedness"), the Company shall deliver a written notice (the "Indebtedness Notice") to the Investors disclosing in reasonable detail the terms and conditions of the proposed Senior Indebtedness. For ten (10) days following receipt by the Investors of the Indebtedness Notice (the "ROFR Period"), the Investors shall have the option to provide all or part of the proposed Senior Indebtedness up to a maximum aggregate amount of ten million dollars ($10,000,000) under the terms and conditions set forth in the Indebtedness Notice, on a pro rata basis based on the ownership of the then outstanding Principal amount of the Notes. The Company, or any of its Subsidiaries, as applicable, shall have ninety (90) days from the expiration of the ROFR Period to incur or assume the Senior Indebtedness specified in the relevant Indebtedness Notice that is not provided by the Investors, but only upon terms and conditions (including, without limitation, principal amounts, maturity dates and interest rates) that are not more favorable to the providers of such Senior Indebtedness or less favorable to the Company than those set forth in the Indebtedness Notice.

ARTICLE 6

MISCELLANEOUS

6.1 Expenses.

(a) The Company will pay, and save the Investors harmless against (i) all liability for the payment of the reasonable costs and expenses, including without limitation the legal expenses of Edwards Angell Palmer & Dodge LLP of up to $60,000 as counsel to the Designators, incurred by the Designators in connection with the transactions contemplated by this Agreement, and (ii) all liability for the payment of the reasonable costs and expenses, including without limitation the reasonable fees and expenses of one counsel selected by the Designators, incurred by the Investors in connection with the ownership of the Closing Securities including, without limitation, any amendment or waiver of, or enforcement of, any Transaction Document relating to the transactions contemplated hereby.

(b) The Company further agrees that they will pay, and will save each Investor harmless from, any and all Liabilities with respect to any stamp or similar taxes which may be determined to be payable in connection with the execution and delivery and performance of the Transaction Documents or any modification, amendment or alteration of the terms or provisions of the Transaction Documents (excluding any taxes on the income or gain of the Investor).

6.2 Further Assurances. The Company shall duly execute and deliver, or cause to be duly executed and delivered, at its own cost and expense, such further instruments and documents and to take all such action, in each case as may be necessary or proper in the reasonable judgment of the Investors to carry out the provisions and purposes of this Agreement and the other Transaction Documents.

6.3 Remedies. In case any one or more of the representations, warranties, covenants and/or agreements set forth in this Agreement or any other Transaction Documents shall have been breached by a party, the other parties may proceed to protect and enforce its rights either by suit in equity and/or by action at law, including an action for damages as a result of any such breach and/or an action for specific performance of any such covenant or agreement contained in this Agreement or any of the other Transaction Documents, and may exercise all remedies under the Closing Securities.

6.4 Survival. The representations, warranties, covenants and agreements made herein shall survive any investigation made by any party hereto, the execution and delivery of this Agreement and the closing of the transactions contemplated hereby.

6.5 Successors and Assigns. This Agreement shall bind and inure to the benefit of the Company and the Investors and their respective successors and permitted assigns. Subject to applicable federal, state and provincial securities laws and regulations, the Investors may freely assign either this Agreement or any of their rights, interests, or obligations hereunder without the prior written approval of the other parties, except (a) to a Competitor as defined in the Notes and (b) subject to the provisions set forth in Section 17 thereof.

6.6 Entire Agreement. This Agreement and the other writings referred to herein or delivered pursuant hereto (including the other Transaction Documents) which form a part hereof contain the entire agreement among the parties with respect to the subject matter hereof and thereof and supersede all prior and contemporaneous arrangements or understandings with

respect thereto including, without limitation, the Note Exchange Agreement dated August 3, 2007 by and among the Company and the holders of the Old Notes.

6.7 Notices. All notices, requests, demands, claims, consents and other communications delivered hereunder (whether or not required to be delivered hereunder) shall be deemed to be sufficient and duly given if contained in a written instrument (a) personally delivered, (b) sent by fax, (c) sent by nationally-recognized overnight courier guaranteeing next business day delivery or (d) sent by first class registered or certified mail, postage prepaid, return receipt requested, in each case addressed as follows:

(i) if to the Company, to:

PharmAthene, Inc.
One Park Place
Suite 450
Annapolis, MD 21401
Attention: David P. Wright
Fax: (410) 269-2601

with a copy to:

Jeffrey A. Baumel, Esq.
Sonnenschein Nath & Rosenthal LLP
101 JFK Parkway
Short Hills, NJ 07078
Fax: (973) 912-7199;

and

(ii) if to an Investor, to him, her or it at his, her or its address set forth on such Investor's signature block hereto,

with a copy to:

James T. Barrett, Esq.
Edwards Angell Palmer & Dodge LLP
111 Huntington Avenue
Boston, MA 02199-7613
Fax: (617) 227-4420

or to such other address as the party to whom such notice or other communication is to be given may have furnished to each other party in writing in accordance herewith. Any such notice or communication shall be deemed to have been received (A) when delivered, if personally delivered, (B) when sent, if sent by telecopy on a business day (or, if not sent on a business day, on the next business day after the date sent by telecopy), (C) on the next business day after dispatch, if sent by nationally recognized, overnight courier guaranteeing next business day

delivery, and (D) on the fifth (5^{th}) business day following the date on which the piece of mail containing such communication is posted, if sent by mail.

6.8 Amendments, Modifications, Terminations and Waivers. The terms and provisions of this Agreement and the Closing Securities may not be modified, amended or terminated, nor may any of the provisions hereof be waived, temporarily or permanently, except (i) prior to the Closing, pursuant to a written instrument executed by the Company and those parties to this Agreement that have agreed to purchase at least a majority of the Closing Securities, which parties must include both of the Designators, or (ii) after the Closing, pursuant to a written instrument executed by the Company and the Required Holders.

6.9 Governing Law; Waiver of Jury Trial.

(a) All questions concerning the construction, interpretation and validity of this Agreement shall be governed by and construed and enforced in accordance with the domestic laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule (whether in the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware. In furtherance of the foregoing, the internal law of the State of Delaware will control the interpretation and construction of this Agreement, even if under such jurisdiction's choice of law or conflict of law analysis, the substantive law of some other jurisdiction would ordinarily or necessarily apply.

(b) BECAUSE DISPUTES ARISING IN CONNECTION WITH COMPLEX FINANCIAL TRANSACTIONS ARE MOST QUICKLY AND ECONOMICALLY RESOLVED BY AN EXPERIENCED AND EXPERT PERSON AND THE PARTIES WISH APPLICABLE LAWS TO APPLY (RATHER THAN ARBITRATION RULES), THE PARTIES DESIRE THAT THEIR DISPUTES BE RESOLVED BY A JUDGE APPLYING SUCH APPLICABLE LAWS. THEREFORE, TO ACHIEVE THE BEST COMBINATION OF THE BENEFITS OF THE JUDICIAL SYSTEM AND OF ARBITRATION, THE PARTIES HERETO WAIVE ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, SUIT OR PROCEEDING BROUGHT TO ENFORCE OR DEFEND ANY RIGHTS OR REMEDIES UNDER THIS AGREEMENT OR ANY DOCUMENTS RELATED HERETO.

6.10 No Third Party Reliance. Anything contained herein to the contrary notwithstanding, the representations and warranties of the Company contained in this Agreement (a) are being given by the Company as an inducement to the Investors to enter into this Agreement and the other Transaction Documents (and the Company acknowledges that the Investors have expressly relied thereon) and (b) are solely for the benefit of the Investors. Accordingly, no third party (including, without limitation, any holder of capital stock of the Company) or anyone acting on behalf of any holder thereof other than the Investors, and each of them, shall be a third-party or other beneficiary of such representations and warranties and no such third party shall have any rights of contribution against the Investors or the Company with respect to such representations or warranties or any matter subject to or resulting in indemnification under this Agreement or otherwise.

6.11 Publicity. Neither the Investors nor the Company shall issue any press release or make any public disclosure regarding the transactions contemplated hereby unless such press release or public disclosure is approved by the Required Holders and those parties mentioned in such press release or

public disclosure in advance. Notwithstanding the foregoing, each of the parties hereto may, in documents required to be filed by it with the Commission or other regulatory bodies, make such statements with respect to the transactions contemplated hereby as each may be advised by counsel is legally necessary or advisable.

6.12 Severability. It is the desire and intent of the parties that the provisions of this Agreement be enforced to the fullest extent permissible under the law and public policies applied in each jurisdiction in which enforcement is sought. Accordingly, in the event that any provision of this Agreement would be held in any jurisdiction to be invalid, prohibited or unenforceable for any reason, such provision, as to such jurisdiction, shall be ineffective, without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any jurisdiction. Notwithstanding the foregoing, if such provision could be more narrowly drawn so as to not be invalid, prohibited or unenforceable in such jurisdiction, it shall, as to such jurisdiction, be so narrowly drawn, without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.

6.13 Independence of Agreements, Covenants, Representations and Warranties. All agreements and covenants hereunder shall be given independent effect so that if a certain action or condition constitutes a default under a certain agreement or covenant, the fact that such action or condition is permitted by another agreement or covenant shall not affect the occurrence of such default, unless expressly permitted under an exception to such covenant. In addition, all representations and warranties hereunder shall be given independent effect so that if a particular representation or warranty proves to be incorrect or is breached, the fact that another representation or warranty concerning the same or similar subject matter is correct or is not breached will not affect the incorrectness of or a breach of a representation and warranty hereunder. The annexes, exhibits and schedules attached hereto are hereby made part of this Agreement in all respects.

6.14 Counterparts; Facsimile and Electronic Signatures. This Agreement may be executed in any number of counterparts, and each such counterpart hereof shall be deemed to be an original instrument, but all such counterparts together shall constitute but one agreement. Counterpart signatures to this Agreement delivered by facsimile or other electronic transmission shall be acceptable and binding.

6.15 Headings. The section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

* * * * *

IN WITNESS WHEREOF, each of the undersigned has duly executed this Note and Warrant Purchase Agreement as of the date first written above.

PHARMATHENE, INC.

By: _____
Name: David P. Wright
Title: President and CEO

[Signature page to Note and Warrant Purchase Agreement]

INVESTORS:

By: _____
Name:
Title:

[Signature page to Note and Warrant Purchase Agreement]

Amendment No. 1 to
Note and Warrant Purchase Agreement
Dated as of July 26, 2009

Pursuant to Section 6.8 of the Note and Warrant Purchase Agreement dated as of July 24, 2009 by and among PharmAthene, Inc. and the Investors listed in Annex I and Annex II thereof (the "Agreement"), the Company and the parties to the Agreement that have agreed to purchase at least a majority of the Closing Securities, including both of the Designators, hereby agree and consent to amend the Agreement as follows:

1. The second recital of the Agreement is deleted in its entirety and replaced with the following:

"**WHEREAS,** the Investors wish to purchase from the Company, and the Company wishes to sell and issue to the Investors, upon the terms and conditions stated in this Agreement, (i) senior unsecured convertible notes in the form attached hereto as Exhibit A in the initial aggregate Principal amount of up to $19,294,123.84 (the "Notes"), and (ii) warrants to purchase an aggregate of up to 2,572,550 shares of the Company's common stock, $0.0001 per share (the "Common Stock"), at an exercise price per share equal to the closing price of the Common Stock on the NYSE Amex immediately preceding the execution of this Agreement, in the form attached hereto as Exhibit B (the "Warrants," and together with the Notes, the "Closing Securities");"

2. Annex I and Annex II of the Agreement are deleted in their entirety and replaced with the Annex I and Annex II set forth in Exhibit A hereto, for the purpose of adding the additional Investors listed therein.

This Amendment No. 1 to Note and Warrant Purchase Agreement (this "Amendment") may be executed in any number of counterparts, and each such counterpart hereof shall be deemed to be an original instrument, but all such counterparts together shall constitute but one agreement. Counterpart signatures to this Amendment delivered by facsimile or other electronic transmission shall be acceptable and binding. Capitalized terms used and not defined herein have the meaning ascribed to such terms in the Agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, each of the undersigned has duly executed this Amendment No. 1 to Note and Warrant Purchase Agreement as of the date first written above.

PHARMATHENE, INC.

By: _____
Name: David P. Wright
Title: President and CEO

INVESTORS:

By: _____
Name:
Title:

Amendment No. 2 to
Note and Warrant Purchase Agreement
Dated as of July 28, 2009

Pursuant to Section 6.8 of the Note and Warrant Purchase Agreement dated as of July 24, 2009 by and among PharmAthene, Inc. and the Investors listed in Annex I and Annex II thereof, as amended as of July 26, 2009 by Amendment No. 1 to Note and Warrant Purchase Agreement (as so amended, the "Agreement"), the Company and the parties to the Agreement that have agreed to purchase at least a majority of the Closing Securities, including both of the Designators, hereby agree and consent to amend the Agreement as follows:

1. The second recital of the Agreement is deleted in its entirety and replaced with the following:

"**WHEREAS,** the Investors wish to purchase from the Company, and the Company wishes to sell and issue to the Investors, upon the terms and conditions stated in this Agreement, (i) senior unsecured convertible notes in the form attached hereto as Exhibit A in the initial aggregate Principal amount of up to $19,295,801.83 (the "Notes"), and (ii) warrants to purchase an aggregate of up to 2,572,775 shares of the Company's common stock, $0.0001 per share (the "Common Stock"), at an exercise price per share equal to the closing price of the Common Stock on the NYSE Amex immediately preceding the execution of this Agreement, in the form attached hereto as Exhibit B (the "Warrants," and together with the Notes, the "Closing Securities");".

2. Article 2.2(e) of the Agreement is deleted in its entirety and replaced with the following:

"The outstanding shares of Common Stock are listed on the NYSE Amex and the Note Shares and the Warrant Shares will have been approved for listing on the NYSE Amex, subject to notice of issuance, not later than thirty (30) days following the Closing Date. The Company or its representatives or agents have had conversations and correspondence with representatives of the NYSE Amex in which they described in reasonable detail the terms and conditions of and the transactions contemplated by the Transaction Documents (the "Amex Conversations"), and based on the Amex Conversations, the Company (i) reasonably believes that the Note Shares and the Warrant Shares will be listed on the NYSE Amex within thirty (30) days following the Closing Date and (ii) is not aware of any reason that the Note Shares and the Warrant Shares will not be so listed. The transactions contemplated by the Transaction Documents do not require shareholder approval under the rules of the NYSE Amex."

3. Article 5.5 of the Agreement is deleted in its entirety and replaced with the following:

"Listing. The Company shall use its best efforts to obtain the written approval for listing on the NYSE Amex, subject to notice of issuance, of the Note Shares and the Warrant Shares as promptly as possible, but in no event later than thirty (30) days after the Closing Date (the date on which such shares are listed, the "Listing Date"). From and after the Listing Date, the

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Company shall maintain the listing of all of the Registrable Securities (as defined in the Registration Rights Agreement) from time to time issuable under the terms of the Transaction Documents upon each national securities exchange and automated quotation system, if any, upon which the Common Stock is then listed. The Company shall maintain the Common Stock's authorization for listing on the principal exchange or market in which it is listed. Neither the Company nor any of its Subsidiaries shall take any action which would be reasonably expected to result in the delisting or suspension of the Common Stock

on the principal market in which it is listed. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 5.5."

4. Annex I of the Agreement is deleted in its entirety and replaced with the Annex I set forth in Exhibit A hereto.

5. The Schedule of Exceptions is amended and restated as attached hereto.

This Amendment No. 2 to Note and Warrant Purchase Agreement (this "Amendment") may be executed in any number of counterparts, and each such counterpart hereof shall be deemed to be an original instrument, but all such counterparts together shall constitute but one agreement. Counterpart signatures to this Amendment delivered by facsimile or other electronic transmission shall be acceptable and binding. Capitalized terms used and not defined herein have the meaning ascribed to such terms in the Agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, each of the undersigned has duly executed this Amendment No. 2 to Note and Warrant Purchase Agreement as of the date first written above.

PHARMATHENE, INC.

By: _____
Name: David P. Wright
Title: President and CEO

[Signature Page to Amendment No. 2 to Note and Warrant Purchase Agreement]

INVESTORS:

By: _____
Name:
Title:

Exhibit 10.51

Execution Version

REGISTRATION RIGHTS AGREEMENT

This **REGISTRATION RIGHTS AGREEMENT** (this "**Agreement**") is entered into as of July 28, 2009 by and among PharmAthene, Inc., a Delaware corporation (the "**Company**") and the "Investors" parties hereto.

The parties hereto agree as follows:

1. Certain Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings given such terms in that certain Note and Warrant Purchase Agreement dated as of July 24, 2009 by and among the Company and the Investors, as the same may be amended and/or restated from time to time (the "**Note and Warrant Purchase Agreement**"). As used in this Agreement, the following terms shall have the following meanings:

(a) **"Common Stock"** mean the Company's common stock, par value $0.0001 per share, and any securities into which such shares may hereinafter be reclassified.

(b) "**Effective Date**" shall mean, with respect to the Registration Statement, the date on which the Registration Statement shall have been declared effective by the SEC.

(c) "**Effectiveness Period**" shall mean the period from the Closing Date until the earlier of (i) the date on which all Registrable Securities covered by such Registration Statement, as amended from time to time, have been sold, and (ii) the date on which all Registrable Securities covered by such Registration Statement may be sold without restriction pursuant to Rule 144. The Company shall advise the Investors in writing when the Effectiveness Period has expired pursuant to clause (ii) of this Section 1(c).

(d) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, together with all rules and regulations promulgated thereunder.

(e) "**Holders**" means the Investors or any of their respective affiliates or permitted transferees.

(f) **"Notes"** means the 10% Senior Unsecured Convertible Notes issued to the Investors pursuant to the Note and Warrant Purchase Agreement, the form of which is attached to Note and Warrant Purchase Agreement as Exhibit A.

(g) **"Note Shares"** means the shares of Common Stock issuable upon the conversion of the Notes.

(h) "**Prospectus**" means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 424(b) promulgated under the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by the Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

(i) "**Registrable Securities**" shall mean the Note Shares, the Warrant Shares, and any other securities issued or issuable with respect to in exchange for Registrable Securities, but excluding (i) any such shares sold under an effective registration statement or (ii) any such shares sold pursuant to Rule 144 under the Securities Act.

(j) "**Registration Statement**" means any registration statement required to be filed under this Agreement, including the Prospectus, amendments and supplements to such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in such registration statement.

(k) "**SEC**" means the U.S. Securities and Exchange Commission.

(l) "**Securities Act**" means the Securities Act of 1933, as amended, together with all rules and regulations promulgated thereunder

(m) **"Warrants"** means the warrants to purchase shares of Common Stock issued to the Investors pursuant to the Note and Warrant Purchase Agreement, the form of which is attached to the Note and Warrant Purchase Agreement as Exhibit B.

(n) **"Warrant Shares"** means the shares of Common Stock issuable upon the exercise of the Warrants.

2. Registration.

(a) Mandatory Registration. Within thirty (30) days after the Closing Date, the Company shall cause to be prepared and filed with the SEC a Registration Statement providing for the resale of all Registrable Securities for an offering to be made by the Holders on a continuous basis pursuant to Rule 415. Such Registration Statement shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance herewith). The Company shall cause such Registration Statement to be declared effective under the Securities Act as promptly as possible after the filing thereof but in any event within ninety (90) days (one hundred and twenty (120) days if the Registration Statement is reviewed by the SEC) after the Closing Date. The Company shall keep such Registration Statement continuously effective under the Securities Act until the date when all Registrable Securities covered by such Registration Statement have been sold. Reference is made to Registration Default Payments (as such term is defined in the Notes) set forth in Section 14(f) of the Notes and Section 5.4 of the Note and Warrant Purchase Agreement. Notwithstanding anything to the contrary contained herein, if the SEC specifically prohibits the Registration Statement from including all Registrable Securities ("**SEC Guidance**") (provided that the Company shall advocate with the SEC for the registration of all or the maximum number of the Registrable Securities permitted by SEC Guidance to be included in such Registration Statement, such maximum number, the

"**Rule 415 Amount**"), then the Company will not be in breach of this provision by following such SEC Guidance, and the Company will file such additional Registration Statements at the earliest practicable date on which the Company is permitted by SEC Guidance to file such additional

Registration Statements related to the Registrable Securities, each registering the Rule 415 Amount, seriatim, until all of the Registrable Securities have been registered.

(b) Demand Registration. At any time following the date that is 180 days following the Closing Date but prior to the expiration of the Effectiveness Period, if the Company shall be requested (a "**Registration Request**") by Holders holding at least a majority of the then outstanding Registrable Securities to effect the registration under the Securities Act of Registrable Securities, then the Company shall (i) within ten (10) days of the receipt of such Registration Request, give written notice of such request to all Holders describing the terms of such registration and, if applicable, the underwriting and (ii) as soon as practicable cause to be prepared and filed with the SEC a Registration Statement providing for the resale of all Registrable Securities which Holders request to be registered. The Registration Statement shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance herewith). The Company shall cause the Registration Statement to be declared effective under the Securities Act as promptly as possible after the filing thereof. The Company shall keep the Registration Statement continuously effective under the Securities Act until the date when all Registrable Securities covered by such Registration Statement have been sold. The Company shall not be obligated to file and cause to become effective more than two (2) Registration Statements pursuant to this Section 2(b). A Registration Statement shall not be counted for purposes of the foregoing until such time as such Registrations Statement has been declared effective by the SEC and all of the Registrable Securities offered pursuant to such Registration Statement are sold thereunder upon the price and terms offered. Notwithstanding anything to the contrary contained herein, the amount of Registrable Securities required to be included in the initial Registration Statement as described in this Section 2(b) shall equal the lesser of (a) the amount of Registrable Securities that Holders request to have so registered pursuant to this Section 2(b) and (b) the maximum amount of Registrable Securities which may be included in a Registration Statement without exceeding the Rule 415 Amount.

(c) Each Holder will furnish to the Company in writing the information specified in Item 507 and/or 508 of Regulation S-K, as applicable, of the Securities Act for use in connection with any Registration Statement or prospectus or preliminary prospectus included therein. Each Holder agrees to promptly furnish additional information required to be disclosed in order to make the information previously furnished to the Company by such Holder not materially misleading.

(d) The Company shall notify each Holder in writing promptly (and in any event within one business day) after receiving notification from the SEC that a Registration Statement has been declared effective.

(e) Any Registration Statement required hereunder shall contain (except if otherwise directed by the Holders of at least a majority of the Registrable Securities included in such Registration Statement) the "Plan of Distribution" attached hereto as Annex A.

3. Registration Procedures. In connection with the Company's registration obligations hereunder, the Company shall:

(a) (i) prepare and file with the SEC such amendments, including post-effective amendments, to the Registration Statement as may be necessary to keep the Registration Statement continuously effective as to the Registrable Securities until the date when all Registrable Securities covered by such Registration Statement have been sold or, with respect to Registration Statements filed pursuant to Section 2(a), can be sold without restriction by Holders; (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement, and as so supplemented or amended to be filed pursuant to Rule 424; and (iii) respond as promptly as reasonably possible to any comments received from the SEC with respect to the Registration Statement or any amendment thereto and as promptly as reasonably possible provide each Holder copies of all correspondence from and to the SEC relating to the Registration Statement.

(b) Notify each Holder as promptly as reasonably possible, and confirm such notice in writing no later than one (1) trading day thereafter, of any of the following events: (i) the SEC notifies the Company whether there will be a "review" of the Registration Statement; (ii) the SEC comments in writing on the Registration Statement (in which case the Company shall deliver to each Holder a copy of such comments and of all written responses thereto); (iii) the SEC or any other Federal or state governmental authority in writing requests any amendment or supplement to the Registration Statement or Prospectus or requests additional information related thereto; (iv) if the SEC issues any stop order suspending the effectiveness of the Registration Statement or initiates any action, claim, suit, investigation or proceeding (a "**Proceeding**") for that purpose; (v) the Company receives notice in writing of any suspension of the qualification or exemption from qualification of any Registrable Securities for sale in any jurisdiction, or the initiation or threat of any Proceeding for such purpose; or (vi) the financial statements included in the Registration Statement become ineligible for inclusion therein or any statement made in the Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference is untrue in any material respect or any revision to the Registration Statement, Prospectus or other document is required so that it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(c) Use its reasonable best efforts to avoid the issuance of or, if issued, obtain the withdrawal of: (i) any order suspending the effectiveness of the Registration Statement or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment.

(d) Promptly deliver to each Holder, without charge, such reasonable number of copies of the Prospectus or Prospectuses (including each form of prospectus) and each amendment or supplement thereto as such Holder may reasonably request. The Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by the Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto.

(e) (i) In the time and manner required by the NYSE Amex and any other market on which the Registrable Securities are traded (each, a "**Principal Market**"), prepare and file with each Principal Market an additional shares listing application covering all of the

Registrable Securities and a notification form regarding the change in the number of the Company's outstanding Shares; (ii) take all steps necessary to cause such Registrable Securities to be approved for listing on each Principal Market as soon as possible thereafter; (iii) provide to each Holder notice of such listing; and (iv) maintain the listing of such Registrable Securities on each Principal Market.

(f) Prior to any public offering of Registrable Securities, register or qualify or cooperate with the Holders in connection with the registration or qualification (or exemption from such registration or qualification) of such Registrable Securities for offer and sale under the securities or "blue sky" laws of such jurisdictions within the United States as any Holder requests in writing, to keep each such registration or qualification (or exemption therefrom) effective until the date when all Registrable Securities covered by such Registration Statement have been sold and to do any and all other acts or things necessary or advisable to enable the disposition in such jurisdictions of the Registrable Securities covered by a Registration Statement; *provided, however*, that the Company shall not be required for any such purpose to: (i) qualify generally to do business as a foreign corporation in any jurisdiction wherein it would not be otherwise required to qualify but for the requirements of this Section (3)(f), or (ii) subject itself to taxation.

(g) Upon the occurrence of any event described in Section (3)(b)(vi) above, as promptly as reasonably possible, prepare a supplement or amendment, including a post-effective amendment, to the Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither the Registration Statement nor such Prospectus will contain an 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, in light of the circumstances under which they were made, not misleading; *provided, however*, that the Company may suspend sales pursuant to the Registration Statement for a period (such period being a **"Blackout Period"**) of up to sixty (60) days (unless the Holders of at least a majority of the Registrable Securities consent in writing to a longer delay of up to an additional thirty (30) days) no more than once in any twelve-month period if the Company furnishes to the Holders a certificate signed by the Company's Chief Executive Officer stating that in the good faith judgment of the Company's Board of Directors: (i) the offering could reasonably be expected to materially interfere with an acquisition, corporate reorganization or other material transaction then under consideration by the Company or (ii) there is some other material development relating to the operations or condition (financial or other) of the Company that has not been disclosed to the general public and as to which it is in the Company's best interests not to disclose; *provided further, however,* that the Company may not so suspend sales more than once in any calendar year without the written consent of the Holders of at least a majority of the Registrable Securities.

(h) Comply with all applicable rules and regulations of the SEC and each Principal Market with respect to the Company's obligations hereunder.

4. Underwritten Offerings.

(a) At the request (an "**Underwriting Request**") of the Holders of at least a majority of the then outstanding Registrable Securities (the "**Requesting Stockholders**"), the distribution of the Registrable Securities covered by a Registration Statement filed or to be filed pursuant to Section 2(b) hereof, and/or the distribution of that portion of the Registrable Securities covered by a Registration Statement filed pursuant to Section 2(a) hereof as to which Underwriting Request is made, shall be effected by means of an underwriting.

(b) In the event of an Underwriting Request, the Company, together with all Holders proposing to distribute their securities through such underwriting (the "**Participating Stockholders**"), shall enter into an underwriting agreement in customary form with the managing underwriter(s) selected for such underwriting by the Requesting Stockholders, which underwriter(s) shall be reasonably acceptable to the Company; provided, however, that no Holder shall be required to make any representations or warranties concerning the Company or its business, properties, prospects, financial condition or related matters. Notwithstanding any other provision of this Section 4, if the managing underwriter(s) advises the Company and the Participating Stockholders in writing that because the number of shares requested by the Participating Stockholders to be included in the registration exceeds the number which can be sold in an orderly manner in such offering within a price range acceptable to the Requesting Stockholders or that marketing factors require a limitation of the number of shares to be underwritten on behalf of the Participating Stockholders (the "**Underwritten Registration Cutback**"), and such Underwritten Registration Cutback results in less than all of the Registrable Securities of the Participating Stockholders that are requested to be included in such registration to actually be included in such registration, then the Company will include in such registration, to the extent of the number which the Company is so advised can be sold in (or during the time of) such offering without such interference or affect on the price or sale, such number of Registrable Securities shared pro rata among all of the Participating Stockholders based on the total number of Registrable Securities held by each such Participating Stockholder. For the avoidance of doubt, the Company shall not sell shares in any underwritten offering in connection with a Registration Statement filed pursuant to Section 2(a) or (b) in the event of an Underwritten Registration Cutback.

(c) In the event of an Underwriting Request, the Company shall

(i) cooperate with the Participating Stockholders, the underwriters participating in the offering and their counsel in any due diligence investigation reasonably requested by the Participating Stockholders or the underwriters in connection therewith, and participate, to the extent reasonably requested by the Participating Stockholders and the underwriter for the offering, in efforts to sell the Registrable Securities under the offering (including, without limitation, participating in "roadshow" meetings with prospective investors) that would be customary for underwritten primary offerings of a comparable amount of equity securities by the Company;

(ii) cooperate, to the extent reasonably requested, with each underwriter participating in the disposition of such Registrable Securities and their

respective counsel in connection with any filings required to be made with each Principal Market;

(iii) afford the Requesting Stockholders with the opportunity to participate in the drafting of the registration statement and the documentation relating thereto;

(iv) furnish, on the date on which such Registrable Securities are sold to the underwriter, (A) an opinion, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and (B) a "comfort" letter dated such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters; and

(v) take all other steps reasonably necessary to effect the registration of the Registrable Securities contemplated hereby.

5. Registration Expenses. The Company shall pay all fees and expenses incident to the performance of or compliance with this Agreement by the Company, including without limitation: (a) all registration and filing fees and expenses, including without limitation those related to filings with the SEC, each Principal Market and in connection with applicable state securities or "Blue Sky" laws, (b) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities and of printing copies of Prospectuses reasonably requested by a Holder), (c) messenger, telephone and delivery expenses, (d) fees and disbursements of counsel for the Company, and (e) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. The Company shall also pay the reasonable fees and expenses of one counsel to the Holders (selected by the Holders of at least a majority of the Registrable Shares to be registered on such applicable Registration Statement). Notwithstanding the foregoing, each Holder shall pay any and all costs, fees, discounts or commissions attributable to the sale of its respective Registrable Securities.

6. Indemnification.

(a) Indemnification by the Company. In the event of a registration of any Registrable Securities under the Securities Act pursuant to this Agreement, the Company will indemnify and hold harmless each of the Holders, and their respective officers, directors and each other Person, if any, who controls or is an affiliate of such Holder within the meaning of the Securities Act, against any losses, claims, damages or liabilities (collectively, "**Losses**"), to which such Holder, or such Persons may become subject under the Securities Act or otherwise, insofar as such Losses arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement under which such Registrable Securities were registered under the Securities Act pursuant to this Agreement, any preliminary Prospectus or final Prospectus contained therein, or any amendment or supplement thereof, 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 the Holder, and each such Person for any reasonable legal or other expenses incurred by them in connection with investigating or defending any such Losses; *provided*, *however*, that the Company will not be liable in any such case if and to the extent that any such Losses arise out of or are based upon: (i) an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by or on behalf of such Holder or any such Person in writing specifically for use in any such document and specifically relating to such Holder, (ii) the failure of a Holder to deliver a Prospectus, to the extent that such Holder was required to do so under applicable securities laws, or (iii) in the case of an occurrence of an event of the type specified in Section (3)(b)(iii)-(vi) above, the use by such Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated in Section 7 below.

(b) Indemnification by Holders. In the event of a registration of the Registrable Securities under the Securities Act pursuant to this Agreement, each Holder will severally, but not jointly, indemnify and hold harmless the Company, and its officers, directors and each other Person, if any, who controls the Company within the meaning of the Securities Act, against all Losses to which the Company or such Persons may become subject under the Securities Act or otherwise, insofar as such Losses arise out of or are based upon any untrue statement or alleged untrue statement of any material fact in the Registration Statement under which such Registrable Securities were registered under the Securities Act pursuant to this Agreement, any preliminary Prospectus or final Prospectus contained therein, or any amendment or supplement thereof, 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 the Company and each such Person for any reasonable legal or other expenses incurred by them in connection with investigating or defending any such Losses; *provided*, *however*, that a Holder will be liable in any such case if and only to the extent that any such Losses arise out of or are based upon an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished in writing to the Company by or on behalf of such Holder specifically for use in any such document and specifically relating to such Holder. In addition, the foregoing shall not inure to the benefit of a Holder (i) if such Holder fails to deliver a Prospectus, to the extent that such Holder was required to do so under applicable securities laws, or (ii) in the case of an occurrence of an event of the type specified in Section (3)(b)(iii)-(vi) above, by reason of the use by such Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated in Section 7 below.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "**Indemnified Party**"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "**Indemnifying Party**") in writing, and the Indemnifying Party shall assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all fees and expenses incurred in connection with defense thereof, provided, that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only)

to the extent that such failure shall have prejudiced the Indemnifying Party. An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (i) the Indemnifying Party has agreed in writing to pay such fees and expenses; or (ii) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding; or (iii) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and such Indemnified Party shall have

been advised by counsel that a conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and such counsel shall be at the expense of the Indemnifying Party; *provided, however*, that in the event that the Indemnifying Party shall be required to pay the fees and expenses of separate counsel, the Indemnifying Party shall only be required to pay the fees and expenses of one separate counsel for such Indemnified Party or Parties. The Indemnifying Party shall not be liable for any settlement of any such Proceeding affected without its written consent, which consent shall not be unreasonably withheld. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding. All fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within ten trading days of written notice thereof to the Indemnifying Party (regardless of whether it is ultimately determined that an Indemnified Party is not entitled to indemnification hereunder; provided, that the Indemnifying Party may require such Indemnified Party to undertake to reimburse all such fees and expenses to the extent it is finally judicially determined that such Indemnified Party is not entitled to indemnification hereunder).

(d) Contribution. If a claim for indemnification under Section 6(a) or (b) is unavailable to an Indemnified Party (by reason of public policy or otherwise), then each Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Losses, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or related to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include any reasonable attorneys' or other reasonable fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or

expenses if the indemnification provided for in this Section 6 was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. 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.

(e) Notwithstanding the provisions of this Section 6, no Holder shall be required to pay indemnification or to contribute, in the aggregate, any amount in excess of the amount of proceeds actually received by such Holder from the sale of the Registrable Securities subject to the Proceeding.

(f) The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

7. Dispositions. Each Holder agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it in connection with sales of Registrable Securities pursuant to the Registration Statement. Each Holder further agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(b)(iii)-(vi), such Holder will discontinue disposition of such Registrable Securities under the Registration Statement until such Holder's receipt of the copies of the supplemented Prospectus and/or amended Registration Statement contemplated by Section 3(g), or until it is advised in writing (the "**Advice**") by the Company that the use of the applicable Prospectus may be resumed, and, in either case, has received copies of any additional or supplemental filings that are incorporated or deemed to be incorporated by reference in such Prospectus or Registration Statement. The Company may provide appropriate stop orders to enforce the provisions of this paragraph.

8. Piggy-Back Registrations. If at any time during the Effectiveness Period, the Company shall determine to prepare and file with the SEC a registration statement relating to an offering for its own account or the account of others under the Securities Act of any of its equity securities, other than on Form S-4 or Form S-8 (each as promulgated under the Securities Act) or their then equivalents relating to equity securities to be issued solely in connection with any acquisition of any entity or business or equity securities issuable in connection with stock option or other employee benefit plans, then the Company shall send to the each Holder written notice of such determination and if, within fifteen (15) days after receipt of such notice, any such Holder shall so request in writing, the Company shall include in such registration statement all or any part of such Registrable Securities such Holder requests to be registered. Notwithstanding the foregoing, if the Company's proposed registration of equity securities hereunder is, in whole or in part, an underwritten public offering, and the managing underwriter of such proposed registration determines and advises in writing that the inclusion of all Registrable Securities proposed to be included in the underwritten public offering, together with any other issued and outstanding shares of the Company's common stock proposed to be included therein (such other shares hereinafter collectively referred to as the **"Other Shares"**), would interfere with the

successful marketing of the Company's securities, then the total number of such securities proposed to be included in such underwritten public offering shall be reduced, (i) first by the shares requested to be included in such registration by the holders of Other Shares (not including shares held by the Holders and registered pursuant to that certain Registration Rights Agreement dated August 3, 2007 between the Company and certain of the Holders (the "**2007 Registration Rights Agreement**"), and (ii) second, if necessary, (A) one-half (½) by the securities proposed to be issued by the Company, and (B) one-half (½) by the Registrable Securities proposed to be included in such registration by the Holders, on a pro rata basis, based upon the number of Registrable Securities then held by each such Holder. The shares of the Company's common stock that are excluded from the underwritten public offering pursuant to the preceding sentence shall be withheld from the market by the holders thereof for a period, not to exceed 90 days from the closing of such underwritten public offering, that the managing underwriter reasonably determines as necessary in order to effect such underwritten public offering. Notwithstanding anything to the contrary contained herein, the amount of Registrable Securities required to be included in the initial Registration Statement as described in this Section 8

shall be equal to the lesser of (a) the amount of Registrable Securities that Holders request to have so registered pursuant to this Section 8 and (b) the maximum amount of Registrable Securities which may be included in a Registration Statement without exceeding the Rule 415 Amount.

9. Reports Under Exchange Act. With a view to making available to the Holders the benefits of Rule 144 promulgated under the Securities Act and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration, the Company shall:

(a) make and keep public information available, as those terms are understood and defined in Rule 144, at all times after the date hereof and so long as the Company is subject to the periodic reporting requirements under Sections 13 or 15(d) of the Exchange Act;

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

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144, the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC which permits the selling of any such securities without registration or pursuant to such form.

10. Mergers. The Company shall not, directly or indirectly, enter into any merger, consolidation or reorganization in which the Company shall not be the surviving corporation unless the proposed surviving corporation shall, prior to such merger, consolidation or reorganization, agree in writing to assume the obligations of the Company under this Agreement, and for that purpose references hereunder to "Registrable Securities" shall be deemed to be references to the securities which the Holders would be entitled to receive in exchange for

Registrable Securities under any such merger, consolidation or reorganization, provided, however, that the provisions of this Agreement shall not apply in the event of any merger, consolidation or reorganization in which the Company is not the surviving corporation if the Holders are entitled to receive in exchange therefor (i) cash or (ii) securities of the acquiring corporation which may be immediately sold to the public pursuant to an effective registration statement under the Securities Act or pursuant to an exemption therefrom which permits sales without limitation as to volume or the manner of sale on a nationally recognized exchange in the United States or on a Principal Market.

11. Miscellaneous.

(a) Governing Law. This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the State of Delaware, without giving effect to principles of conflicts of law or choice of law that would cause the laws of any other jurisdiction to apply.

(b) Transfer of Registration Rights. Any Holder that is a partnership, corporation or limited liability company may transfer or assign its registration rights provided pursuant to this Agreement with respect to any Registrable Securities to any partner, shareholder, member or affiliate of such Holder; provided, however, that (i) such Holder shall give the Company written notice prior to the time of such transfer or assignment stating the name and address of the transferee and identifying the Registrable Securities with respect to which the rights under this Agreement are being transferred and (ii) such transferee or assignee agrees in writing, the form and substance of which shall be reasonably satisfactory to the Company, to be bound as a Holder by the provisions of this Agreement, following which any such transferee or assignee shall be deemed a "Holder" pursuant to this Agreement.

(c) Amendment, Waiver and Termination. Any provision of this Agreement may be amended and the observance thereof may be waived (either generally or in a particular instance and either retroactively or prospectively) and this Agreement may be terminated, only upon the written consent of both the Company and the Holders of not less than a majority of the then outstanding Registrable Securities.

(d) Entire Agreement. This Agreement, the Notes, the Warrants and the Note and Warrant Purchase Agreement constitute the entire agreement between the parties relative to the specific subject matter hereof. Any previous agreement among the parties relative to the specific subject matter hereof is superseded by this Agreement; provided, that the 2007 Registration Rights Agreement shall remain in full force and effect notwithstanding this Agreement; provided, however, that the definition of Registrable Securities as defined in the 2007 Registration Rights Agreement shall be amended and be deemed not to include any Registrable Securities as defined in this Agreement.

(e) Third Party Beneficiaries. There shall be no third party beneficiaries or intended beneficiaries of this Agreements.

(f) Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given in accordance with the Note and Warrant Purchase Agreement.

(g) Severability. In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

(h) Counterparts. This Agreement may be executed in counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile or other electronic transmission, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) the same with the same force and effect as if such facsimile signature page were an original thereof.

(i) Successors and Assigns. The provisions hereof shall inure to the benefit of, and be binding upon, the successors and assigns of the parties hereto.

(j) Independent Nature of Holders' Obligations and Rights. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder hereunder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder hereunder. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Holder pursuant hereto or thereto, shall be deemed to constitute the Holders as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Holders are in any way acting in concert with respect to such obligations or the transactions contemplated by this Agreement. Each Holder shall be entitled to protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Holder to be joined as an additional party in any proceeding for such purpose.

(k) Remedies. In the event of a breach by the Company or by a Holder, of any of their respective obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, will be entitled to specific performance of its rights under this Agreement.

(l) Titles and Subtitles. The titles of the sections and subsections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Registration Rights Agreement as of the date and year first set forth above.

PHARMATHENE, INC.

By: _____
Name: David P. Wright
Title: President and CEO

[Signature page to Registration Rights Agreement]

INVESTORS:

By: _____
Name:
Title:

ANNEX A

Plan of Distribution

The shares covered by this prospectus may be offered and sold from time to time by the selling stockholders. The term "selling stockholder" includes pledgees, donees, transferees or other successors in interest selling shares received after the date of this prospectus from each selling stockholder as a pledge, gift, partnership distribution or other non-sale related transfer. The number of shares beneficially owned by a selling stockholder will decrease as and when it effects any such transfers. The plan of distribution for the selling stockholders' shares sold hereunder will otherwise remain unchanged, except that the transferees, pledgees, donees or other successors will be selling stockholders hereunder. To the extent required, we may amend and supplement this prospectus from time to time to describe a specific plan of distribution.

The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. The selling stockholders may make these sales at prices and under terms then prevailing or at prices related to the then current market price. The selling stockholders may also make sales in negotiated transactions. The selling stockholders may offer their shares from time to time pursuant to one or more of the following methods:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- one or more block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- publicly or privately negotiated transactions;

- on the NYSE Amex (or through the facilities of any national securities exchange or U.S. inter-dealer quotation system of a registered national securities association, on which the shares are then listed, admitted to unlisted trading privileges or included for quotation);
- through underwriters, brokers or dealers (who may act as agents or principals) or directly to one or more purchasers;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

In connection with distributions of the shares or otherwise, the selling stockholders may:

- enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares in the course of hedging the positions they assume;
- sell the shares short and redeliver the shares to close out such short positions;
- enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to them of shares offered by this prospectus, which they may in turn resell; and
- pledge shares to a broker-dealer or other financial institution, which, upon a default, they may in turn resell.

In addition to the foregoing methods, the selling stockholders may offer their shares from time to time in transactions involving principals or brokers not otherwise contemplated above, in a combination of such methods or described above or any other lawful methods. The selling stockholders may also transfer, donate or assign their shares to lenders, family members and others and each of such persons will be deemed to be a selling stockholder for purposes of this prospectus. The selling stockholders or their successors in interest may from time to time pledge or grant a security interest in some or all of the shares of common stock, and if the selling stockholders default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from to time under this prospectus; provided however in the event of a pledge or then default on a secured obligation by the selling stockholder, in order for the shares to be sold under this registration statement, unless permitted by law, we must distribute a prospectus supplement and/or amendment to this registration statement amending the list of selling stockholders to include the pledgee, secured party or other successors in interest of the selling stockholder under this prospectus.

The selling stockholders may also sell their shares pursuant to Rule 144 under the Securities Act, which permits limited resale of shares purchased in a private placement subject to the satisfaction of certain conditions.

Sales through brokers may be made by any method of trading authorized by any stock exchange or market on which the shares may be listed or quoted, including block trading in negotiated transactions. Without limiting the foregoing, such brokers may act as dealers by purchasing any or all of the shares covered by this prospectus, either as agents for others or as principals for their own accounts, and reselling such shares pursuant to this prospectus. The selling stockholders may effect such transactions directly, or indirectly through underwriters, broker-dealers or agents acting on their behalf. In effecting sales, broker-dealers or agents engaged by the selling stockholders may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the selling stockholders, in amounts to be negotiated immediately prior to the sale (which compensation as to a particular broker-dealer might be in excess of customary commissions for routine market transactions).

In offering the shares covered by this prospectus, the selling stockholders, and any broker-dealers and any other participating broker-dealers who execute sales for the selling stockholders, may be deemed to be “underwriters” within the meaning of the Securities Act in connection with these sales. Any profits realized by the selling stockholders and the compensation of such broker-dealers may be deemed to be underwriting discounts and commissions.

The Company is required to pay all fees and expenses incident to the registration of the shares.

The Company has agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.