

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4092498

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	CHANGE OF NAME	
CONVEYING PARTY DATA		
	Name	Execution Date
	BIONANOMATRIX, INC.	09/17/2013
RECEIVING PARTY DATA		
Name:	BIONANO GENOMICS, INC.	
Street Address:	3701 MARKET STREET, 4TH FLOOR	
City:	PHILADELPHIA	
State/Country:	PENNSYLVANIA	
Postal Code:	19104	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	13765353
CORRESPONDENCE DATA		
Fax Number:	(949)760-9502	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>		
Phone:	(949) 760-0404	
Email:	efiling@knobbe.com	
Correspondent Name:	KNOBBE, MARTENS, OLSON & BEAR, LLP	
Address Line 1:	2040 MAIN STREET, 14TH FLOOR	
Address Line 4:	IRVINE, CALIFORNIA 92614	
ATTORNEY DOCKET NUMBER:	BNGEN.003C1	
NAME OF SUBMITTER:	SCOTT SIERA	
SIGNATURE:	/Scott Siera/	
DATE SIGNED:	10/11/2016	
Total Attachments: 29		
source=Articles of Incorporation - Sep 2013#page1.tif		
source=Articles of Incorporation - Sep 2013#page2.tif		
source=Articles of Incorporation - Sep 2013#page3.tif		
source=Articles of Incorporation - Sep 2013#page4.tif		
source=Articles of Incorporation - Sep 2013#page5.tif		
source=Articles of Incorporation - Sep 2013#page6.tif		

source=Articles of Incorporation - Sep 2013#page7.tif
source=Articles of Incorporation - Sep 2013#page8.tif
source=Articles of Incorporation - Sep 2013#page9.tif
source=Articles of Incorporation - Sep 2013#page10.tif
source=Articles of Incorporation - Sep 2013#page11.tif
source=Articles of Incorporation - Sep 2013#page12.tif
source=Articles of Incorporation - Sep 2013#page13.tif
source=Articles of Incorporation - Sep 2013#page14.tif
source=Articles of Incorporation - Sep 2013#page15.tif
source=Articles of Incorporation - Sep 2013#page16.tif
source=Articles of Incorporation - Sep 2013#page17.tif
source=Articles of Incorporation - Sep 2013#page18.tif
source=Articles of Incorporation - Sep 2013#page19.tif
source=Articles of Incorporation - Sep 2013#page20.tif
source=Articles of Incorporation - Sep 2013#page21.tif
source=Articles of Incorporation - Sep 2013#page22.tif
source=Articles of Incorporation - Sep 2013#page23.tif
source=Articles of Incorporation - Sep 2013#page24.tif
source=Articles of Incorporation - Sep 2013#page25.tif
source=Articles of Incorporation - Sep 2013#page26.tif
source=Articles of Incorporation - Sep 2013#page27.tif
source=Articles of Incorporation - Sep 2013#page28.tif
source=Articles of Incorporation - Sep 2013#page29.tif

Delaware

PAGE 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "BIONANO GENOMICS, INC.", FILED IN THIS OFFICE ON THE SEVENTEENTH DAY OF SEPTEMBER, A.D. 2013, AT 8 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.

3618272 8100

131094778

You may verify this certificate online
at corp.delaware.gov/authver.shtml




Jeffrey W. Bullock, Secretary of State
AUTHENTICATION: 0740228

DATE: 09-17-13

PATENT
REEL: 040317 FRAME: 0334

**FOURTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
BIONANO GENOMICS, INC.**

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

BioNano Genomics, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware, as the same may be amended from time to time (the "**General Corporation Law**").

DOES HEREBY CERTIFY:

1. That the original name of this corporation was BioNanomatrix, Inc. and the Certificate of Incorporation of this corporation was originally filed with the Secretary of State of the State of Delaware on August 16, 2007.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Third Amended and Restated Certificate of Incorporation (the "**Restated Certificate**"), of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Restated Certificate of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is BioNano Genomics, Inc. (the "**Corporation**").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 52,620,000 shares of Common Stock, \$0.0001 par value per share ("**Common Stock**") and (ii) 42,033,192 shares of Preferred Stock, par value \$0.0001 per share, 2,041,290 shares of which are designated "Series A Convertible Participating Preferred Stock" (the "**Series A Preferred Stock**"), 17,198,446 shares of which are designated "Series B Convertible Participating Preferred Stock" (the "**Series B Preferred Stock**") and 22,793,456 shares of which are designated "Series B-1 Convertible Participating Preferred Stock" (the "**Series B-1 Preferred Stock**" and (i) together with the Series B Preferred Stock, the "**Series B/B-1 Preferred Stock**," and (ii) together with the Series A Preferred Stock and the Series B Preferred Stock, the "**Series Preferred**").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. Except as required by law or as provided in this Fourth Amended and Restated Certificate of Incorporation (this “**Certificate of Incorporation**”), all shares of Common Stock shall be identical in all respects and shall entitle the holders thereof to the same rights and privileges, subject to the same qualifications, limitations and restrictions. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Series Preferred set forth herein.

2. Dividends and Distributions. Subject to the provisions of this Certificate of Incorporation, including Section B.1 of Article Fourth, the holders of shares of Common Stock shall be entitled to receive such dividends and distributions, payable in cash or otherwise, as may be declared thereon by the Board of Directors of the Corporation (the “**Board**”) from time to time out of assets or funds of the Corporation legally available therefor. The holders of shares of Common Stock shall be entitled to share equally, on a per share basis, in such dividends or distributions, subject to the limitations described below.

3. Voting. The holders of shares of Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Series Preferred if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Certificate of Incorporation or pursuant to the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Series Preferred that may be required by the terms of this Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote (voting together as a single class) without the approval of the holders of Common Stock voting as a separate class, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

4. Liquidation. After the payments to holders of Series Preferred pursuant to Section B.2 of Article Fourth, the holders of Common Stock shall be entitled to liquidation distributions, if any, with holders of Series Preferred on an as converted basis pursuant to Subsection B.2.2 of Article Fourth.

B. PREFERRED STOCK

Unless otherwise indicated, references to “Sections” or “Subsections” in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth.

1. Dividends.

1.1 Series Preferred Dividends. From and after the applicable date of the issuance of any shares of Series Preferred, dividends at the rate per annum (based on a 365 day year) of eight percent (8%) of the applicable Original Issue Price (as defined below) shall accrue on such shares of Series Preferred (the "**Series Preferred Accruing Dividends**"). Series Preferred Accruing Dividends shall accrue from day to day, whether or not declared, and shall be cumulative. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in this Certificate of Incorporation) the holders of the Series Preferred then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Series Preferred in an amount at least equal to the greater of (i) the amount of the applicable aggregate Series Preferred Accruing Dividends then accrued on such share of Series Preferred and not previously paid and (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series Preferred as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of such series of Series Preferred, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of such series of Series Preferred determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any reorganization, stock dividend, stock split, combination or other similar recapitalization affecting such shares) and (2) multiplying such fraction by an amount equal to the applicable Original Issue Price for such series; provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Series Preferred pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Series Preferred dividend for such series. The "**Original Issue Price**" shall be \$1.3995 per share for the Series B-1 Preferred Stock, \$1.3995 per share for the Series B Preferred Stock and \$2.733 per share for the Series A Preferred Stock, each subject to appropriate adjustment in the event of any reorganization, stock split, combination, reclassification, recapitalization or other similar event involving or affecting a change in the Corporation's capital structure.

1.2 Adjustments. All numbers relating to the calculation of dividends pursuant to this Section 1 shall be subject to appropriate adjustment whenever there shall occur a reorganization, stock split, combination, reclassification, recapitalization or other similar event involving or affecting a change in the Corporation's capital structure to provide to the holders of Series Preferred the same economic return as they would have received in the absence of such event.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

3.

2.1 Preferential Payments to Holders of Series Preferred.

2.1.1 Series Preferred Liquidation Preference. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, or in the event of its insolvency, whether under the General Corporation Law, federal bankruptcy laws, or other applicable federal or state laws (each such event, a “**Liquidation Event**”), the holders of shares of Series Preferred, on a *pari passu* basis, shall be entitled to receive, prior to and in preference to any payment or distribution (or any setting aside of any payment or distribution) to the holders of Common Stock or any other class or series of capital stock ranking on liquidation junior to the Series Preferred, by reason of their ownership thereof, an amount per share equal to the applicable Liquidation Preference (as defined below). As used herein, the “**Liquidation Preference**” means and shall be equal to the sum of (i) the applicable Original Issue Price for such series, plus (ii) the amount of any unpaid Series Preferred Accruing Dividends for such series, whether or not declared, together with any other dividends declared but unpaid thereon (the “**Aggregate Dividend Amount**”). If upon any Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay all of the holders of shares of Series Preferred the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Series Preferred shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full. In no event shall the payment of all or any portion of the Liquidation Preference be deemed to be a payment of accrued and unpaid dividends on any shares of Series Preferred to the extent permitted by applicable law.

2.2 Distribution of Remaining Assets. Upon a Liquidation Event, after the payment of the full Liquidation Preference as set forth in Subsection 2.1 above to all holders of shares of Series Preferred, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of the shares of Series Preferred and Common Stock, pro rata based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to Common Stock pursuant to the terms of this Certificate of Incorporation immediately prior to such Liquidation Event; provided, however, that if the aggregate amount which the holders of Series Preferred are entitled to receive under Subsection 2.1 and this Subsection 2.2 shall exceed three times (3x) the applicable Original Issue Price for such series (as applicable, the “**Maximum Participation Amount**”), each holder of Series Preferred shall be entitled to receive upon such Liquidation Event the greater of (i) the Maximum Participation Amount and (ii) the amount such holder would have received if such holder had converted his, her or its shares of Series Preferred into Common Stock immediately prior to such Liquidation Event (and if this clause (ii) applies, Subsection 2.1 above shall not apply).

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a “**Deemed Liquidation Event**” unless each of (x) the holders of at least 67% of the then-outstanding shares of Series B/B-1 Preferred Stock, voting together as a single class, and (y) the holders of at least 60% of the then-outstanding shares of Series A Preferred Stock, voting as a

separate class (together (x) and (y), the “**Requisite Holders**”), elect otherwise by written notice sent to the Corporation at least five (5) days prior to the effective date of any such event:

- (a) a merger or consolidation in which
 - (i) the Corporation is a constituent party; or
 - (ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation (provided that, for the purpose of this Subsection 2.3.1, all shares of Common Stock issuable upon exercise of Options (as defined below) outstanding immediately prior to such merger or consolidation or upon conversion of Convertible Securities (as defined below) outstanding immediately prior to such merger or consolidation shall be deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as the actual outstanding shares of Common Stock are converted or exchanged); or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

2.3.2 Transaction Payment. At least ten (10) business days prior to the consummation of a Deemed Liquidation Event, the Corporation, or if the Corporation is not a party to such transaction, the holders of shares of capital stock of the Corporation that are parties to such transaction, shall provide the holders of Series Preferred written notice of such event (the “**Event Notice**”). Unless the Requisite Holders deliver a notice to the Corporation within five (5) days after receipt of an Event Notice stating that such Deemed Liquidation Event shall not be treated as a Liquidation Event, a Deemed Liquidation Event shall be deemed to have been elected by such holders to be treated as a Liquidation Event in which case the Corporation shall, and each holder of Series Preferred shall be entitled to require that, prior to or concurrently with consideration from any such Deemed Liquidation Event being paid to the Corporation (if the consideration is to be received by the Corporation in an asset transaction), or by any third party to stockholders of the Corporation other than holders of Series Preferred (if the consideration is

to be received directly by such stockholders in a merger, consolidation, stock purchase or similar transaction), a payment (the "**Transaction Payment**") shall be made to the holders of Series Preferred in an amount equal to the amount that such holders would have received had the entire consideration in the transaction (with respect to a Deemed Liquidation Event involving the sale of all or substantially all the assets of the Corporation, net of any liabilities of the Corporation not assumed or otherwise paid by the acquiring entity) been deemed available assets for distribution to the stockholders of the Corporation upon liquidation pursuant to Subsections 2.1 and 2.2. In no event shall the payment of all or any portion of the Transaction Payment be deemed to be a payment of accrued and unpaid dividends on any shares of Series Preferred to the extent permitted by applicable law. The Corporation shall not have the power to effect a Deemed Liquidation Event unless the agreement or plan of merger or consolidation provides that the consideration payable to the stockholders of the Corporation shall be allocated among the stockholders of the Corporation in accordance with Subsections 2.1 and 2.2.

2.3.3 Payment of Transaction Payment. If securities of the acquiring entity (the "**Acquiring Entity Stock**") or other property are issued to the holders of the Series Preferred and Common Stock in the Deemed Liquidation Event, then, the Transaction Payment shall be paid to the holders of Series Preferred in such portions of cash, property or Acquiring Entity Stock, such that all holders of Series Preferred and Common Stock shall receive the same proportion of cash, property and Acquiring Entity Stock in respect of the amounts to which they are entitled pursuant to Subsections 2.1 and 2.2. The Acquiring Entity Stock utilized to make the Transaction Payment, if any, shall have the same rights, preferences and restrictions (including whether the issuance or sale of such Acquiring Entity Stock is registered or entitled to registration rights) as the Acquiring Entity Stock issued to the holders of Common Stock in the Deemed Liquidation Event. Notwithstanding the foregoing, neither the Corporation nor the acquiring entity shall be obligated to deliver certificates evidencing the Acquiring Entity Stock or other property deliverable to a holder of Series Preferred as a result of the Liquidity Event unless and until the certificates representing shares of Series Preferred held by such holder are either delivered to the Corporation or the acquiring entity, or their respective transfer agents, as the Corporation and the acquiring entity may require, duly endorsed in blank for transfer, or the holder certifies in writing to the Corporation or the acquiring entity, or their respective transfer agents, as the Corporation and the acquiring entity may require, that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Corporation or such acquiring entity to indemnify the Corporation and/or such acquiring entity from any loss incurred by it in connection with such certificates. The value of the Acquiring Entity Stock or other property determined as follows shall be used for purposes of determining the amount of the entire consideration in the transaction, the Transaction Payment and the payment thereof. If the consideration received by the Corporation or its stockholders ("**Proceeds**") is other than cash or evidences of indebtedness (for which the value thereof shall be deemed to be the principal amount thereof), its value will be deemed its fair market value, determined as follows:

(a) Any securities (including any Acquiring Entity Stock) included in the Proceeds shall be valued as follows:

- (i) If traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the

securities on such exchange or system over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Deemed Liquidation Event;

- (ii) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Deemed Liquidation Event; and
- (iii) If there is no active public market, the value shall be the fair market value thereof, as determined in good faith, by the Board on the date such determination is made.

(b) Any Proceeds other than cash, evidences of indebtedness, and securities shall have the fair market value of such Proceeds as determined in good faith, by the Board on the date such determination is made.

(c) The foregoing methods for valuing Proceeds to be distributed or delivered in connection with a Deemed Liquidation Event shall, upon approval by the shareholders of the definitive agreements governing the Deemed Liquidation Event, be superseded by any determination of such value set forth in the definitive agreements governing such Deemed Liquidation Event.

(d) Contingent Consideration. In the event of a Deemed Liquidation Event, if any portion of the consideration payable to the stockholders of the Corporation is placed into escrow or is payable to the stockholders of the Corporation subject to contingencies, then, in such event, the definitive acquisition agreement relating to such Deemed Liquidation Event shall provide that (i) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the “**Initial Consideration**”) shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event and (ii) any additional consideration which becomes payable to the stockholders of the Corporation upon release from escrow or satisfaction of the applicable contingency shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration and any other amounts previously released from escrow or paid upon satisfaction of any contingency to the stockholders of the Corporation as part of the same transaction.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written

consent of stockholders in lieu of meeting), each holder of outstanding shares of Series Preferred shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Series Preferred held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of this Certificate of Incorporation, holders of Series Preferred shall vote together with the holders of Common Stock as a single class. Each holder of Series Preferred shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation at the same time and in the same manner as notice is given to all other stockholders entitled to vote at such meetings.

3.2 Election of Directors. The number of directors constituting the Board shall be five (5).

3.2.1 Series B/B-1 Director. For so long as any shares of Series B/B-1 Preferred Stock remain outstanding, the holders of Series B/B-1 Preferred Stock, voting together as a single class, shall be entitled to elect one (1) member (the "**Series B/B-1 Director**") of the Board at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors.

3.2.2 Series A Director. For so long as any shares of Series A Preferred Stock remain outstanding, the holders of Series A Preferred Stock voting as a separate class shall be entitled to elect one (1) member (the "**Series A Director**") of the Board at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors.

3.2.3 Common Director. The holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect one (1) member of the Board at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, which will be the Corporation's Chief Executive Officer.

3.2.4 Remaining Directors. The balance of the total number of directors of the Corporation shall be elected by the holders of record of a majority of the shares of Series Preferred and Common Stock, voting together as a single class.

3.2.5 At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the classes or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Any director elected as provided in this Subsection 3.2 may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the classes or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. A vacancy in any directorship filled by the holders of any classes or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such classes or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2.

3.2.6 Additional Voting Rights. The Series Preferred shall have the additional voting rights specified in Subsection 3.3.

3.3 Series Preferred Protective Provisions. At any time when any shares of Series Preferred are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation, reorganization, via a subsidiary or otherwise, do any of the following without (in addition to any other vote required by law or this Certificate of Incorporation) the written consent or affirmative vote of the Requisite Holders, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

(a) amend, alter or repeal any provision of this Certificate of Incorporation or the Bylaws of the Corporation or take any action that adversely affects the rights, preferences and privileges of the Series Preferred;

(b) effect any Liquidation Event or Deemed Liquidation Event or any voluntary recapitalization, reorganization or bankruptcy, or consent to any of the foregoing;

(c) create, or authorize the creation of, or issue or obligate itself to issue any equity security, or any security directly or indirectly convertible into or exchangeable or exercisable for any equity security (other than securities issued pursuant to the terms of the Note and Warrant Purchase Agreement dated on or about the date hereof among the Corporation and certain purchasers listed therein (as may be amended from time to time, the "Purchase Agreement"));

(d) increase the number of shares of the Corporation's capital stock reserved for issuance upon exercise of Options or Convertible Securities or upon the grant or award of stock or stock related rights to employees, officers or directors of, or consultants, advisors or service providers to, the Corporation pursuant to equity compensation or incentive plans or arrangements above the number of shares authorized on the filing date of this Certificate of Incorporation (subject to appropriate adjustment in the event of any reorganization, stock split, combination, reclassification, recapitalization or other similar event involving or affecting a change in the Corporation's capital structure);

(e) declare or pay any dividends on or make any distribution on, or agree or obligate itself to declare or pay any dividends on or make any distribution on, Common Stock or any other capital stock of the Corporation ranking junior to the Series Preferred with respect the payment of dividends;

(f) increase or decrease the authorized number of directors constituting the Board;

(g) increase the authorized number of shares of any class or series of capital stock;

(h) repurchase or redeem (or permit any subsidiary to repurchase or redeem) any shares of capital stock of the Corporation, or any security directly or indirectly exercisable, convertible or exchangeable for capital stock other than (i) redemptions of the Series Preferred as expressly authorized herein, and (ii) repurchases of stock from former

employees, officers, consultants or service providers of the Corporation or any subsidiary in connection with the cessation of their employment or service as approved by the Board, including the approval of the Series B/B-I Director and the Series A Director;

(i) mortgage or pledge, or create a security interest in, or permit any subsidiary to mortgage, pledge or create a security interest in, all or substantially all of the property or assets of the Corporation or such subsidiary;

(j) create or fund any subsidiary, or permit any subsidiary to hold capital stock in any other subsidiary or any other corporation, partnership, limited liability company or other entity;

(k) guarantee any indebtedness except for trade accounts of the Corporation or any subsidiary arising in the ordinary course of business;

(l) create or incur or authorize the creation or incurrence of any new indebtedness for borrowed money (or any increase of any existing indebtedness for borrowed money) in excess of \$100,000 in the aggregate;

(m) enter into new lines of business or materially change the nature of the Corporation's existing line of business;

(n) enter into or modify any material transaction with senior management or any affiliates of senior management, or with any stockholders or affiliates of stockholders of the Corporation, except for (i) arms-length employment agreements, and (ii) any transaction that is in the ordinary course of business;

(o) enter into or become a party to any transaction or agreement, or otherwise take any action, which would result in or give rise to the taxation of holders of Series Preferred under Section 305 Internal Revenue Code of 1986, as amended; or

(p) enter into a binding agreement to do any of the foregoing.

4. Optional Conversion.

The holders of the Series Preferred shall have conversion rights as follows (the "**Conversion Rights**");

4.1 Right to Convert.

4.1.1 Series Preferred Conversion Ratio. Each share of Series Preferred shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into fully paid and nonassessable shares of Common Stock. The number of shares of Common Stock which a holder of Series Preferred shall be entitled to receive upon conversion shall be equal to the product obtained by multiplying (a) the number of shares of Series Preferred being converted at any time by (b) the applicable Conversion Rate (as defined below) then in effect. Upon conversion, and upon the election of the Corporation (and, with respect to a conversion pursuant

to this Subsection 4.1.1 as opposed to a mandatory conversion pursuant to Section 5, as requested by the electing holder), holders of Series Preferred shall be entitled to receive a cash payment in an amount equal to the applicable Aggregate Dividend Amount immediately prior to such conversion. The "**Conversion Rate**" in effect at any time shall be equal to the sum of (x) the quotient obtained by dividing the applicable Original Conversion Value (as defined below), by the applicable Conversion Price (as defined below) then in effect plus (y) the quotient obtained by dividing an amount equal to the applicable Aggregate Dividend Amount on each share of Series Preferred by an amount equal to the then current fair market value, as determined in good faith by the Board, of one share of Common Stock at the time of any such conversion; *provided, however*, that if the Corporation elects to pay all or a portion of an amount equal to the applicable Aggregate Dividend Amount on each share of Series Preferred (A) as part of the applicable Liquidation Preference or (B) in cash upon the conversion of the Series Preferred, then the portion of the applicable Aggregate Dividend Amount included in the applicable Liquidation Preference or paid in cash upon conversion shall not be included in determining the applicable Conversion Rate. The "**Original Conversion Value**" and the "**Conversion Price**" shall initially be equal to \$1.3995 per share for each of the Series B-1 Preferred Stock, the Series B Preferred Stock and the Series A Preferred Stock (each as adjusted in the event of any reorganization, stock split, combination, reclassification, recapitalization or other similar event involving or affecting a change in the Corporation's capital structure). The initial Conversion Price of each series of Series Preferred, and the rate at which shares of Series Preferred may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.1.2 Termination of Conversion Rights. In the event of a notice of redemption of any shares of Series Preferred pursuant to Section 6, the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the last full day preceding the date fixed for redemption, unless the redemption price is not fully paid on such redemption date, in which case the Conversion Rights for such shares shall continue until such price is paid in full. In the event of a Liquidation Event or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Series Preferred.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Series Preferred. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Series Preferred the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Series Preferred to voluntarily convert shares of Series Preferred into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Series Preferred (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit

and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Series Preferred (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of the Series Preferred represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form reasonably satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such certificates (or lost certificate affidavit and agreement) and notice shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, issue and deliver to such holder of Series Preferred, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof, together with cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion.

4.3.2 Reservation of Shares. The Corporation shall at all times when any shares of Series Preferred are outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Series Preferred, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Series Preferred; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series Preferred, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in reasonable best efforts to obtain the requisite stockholder approval of any necessary amendment to this Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Conversion Price for any series of Series Preferred below the then par value of the shares of Common Stock issuable upon conversion of such series of Series Preferred, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Conversion Price, as applicable.

4.3.3 Effect of Conversion. All shares of Series Preferred which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote, shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment in cash of the applicable Aggregate Dividend Amount, and if so elected pursuant to Subsection 4.1.1. Any shares of Series Preferred so converted shall be retired and cancelled and shall not be reissued as shares of such series, and the Corporation (without the

need for stockholder action) may from time to time take such appropriate action as may be necessary to reduce the authorized number of shares of Series Preferred accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the applicable Conversion Price shall be made for any declared but unpaid dividends on the Series Preferred surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes (but not any income or similar taxes) that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Series Preferred pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Series Preferred so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) **“Convertible Securities”** shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(b) **“Option”** shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(c) **“Series Preferred Original Issue Date”** shall mean the Series A Original Issue Date with respect to the Series A Preferred Stock and the Series B Original Issue Date with respect to the Series B/B-1 Preferred Stock.

(d) **“Series A Original Issue Date”** shall mean the date on which the first share of Series A Preferred Stock was issued.

(e) **“Series B Original Issue Date”** shall mean the date on which the first share of Series B Preferred Stock was issued.

(f) **“Additional Shares of Common Stock”** shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the applicable Series Preferred Original Issue Date, other than the following shares of Common Stock, and shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (collectively **“Exempted Securities”**):

- (i) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on the Series Preferred;

- (ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsections 4.5, 4.6, 4.7 or 4.8 below;
- (iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board;
- (iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;
- (v) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing, customer, vendor, supplier or other similar agreements or strategic transactions entered into for primarily non-equity financing purposes where both the transaction and its status as not constituting an anti-dilution trigger are approved by the Board;
- (vi) shares of Common Stock, Options or Convertible Securities issued in connection with equipment lease financing arrangements, bank financing transactions, in each case, approved by the Board;
- (vii) shares of Common Stock, Options or Convertible Securities issued in connection with acquisitions or business combinations, in each case, approved by the Requisite Holders; or
- (viii) shares of Common Stock, Options or Convertible Securities issued or issuable pursuant to the terms of any Options, Convertible Securities or any arrangements or agreements to issue Options or Convertible Securities outstanding immediately prior to the filing of this Certificate of Incorporation.

4.4.2 No Adjustment of Applicable Conversion Price. No adjustment in the Conversion Price for the Series B/B-1 Preferred Stock shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least 67% of the then outstanding shares of Series B/B-1 Preferred Stock, voting together as a single class, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Conversion Price for the Series A Preferred Stock shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least 60% of the then outstanding shares of Series A Preferred Stock, voting as a separate class, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the applicable Series Preferred Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the applicable Conversion Price for any series of Series Preferred pursuant to the terms of Subsections 4.4.4 or 4.4.5 below, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the applicable Conversion Price for such series of Series Preferred computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such applicable Conversion Price as would have been obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the applicable Conversion Price for any series of Series Preferred to an amount which exceeds the lower of (i) the applicable Conversion Price for such series in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the applicable Conversion Price for such series

that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the applicable Conversion Price for any series of Series Preferred pursuant to the terms of Subsections 4.4.4 or 4.4.5 below (either because the consideration per share (determined pursuant to Subsection 4.4.6 hereof) of the Additional Shares of Common Stock subject thereto was equal to or greater than the applicable Conversion Price for each such series then in effect, or because such Option or Convertible Security was issued before the applicable Series Preferred Original Issue Date), are revised after the Series Preferred Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.3(a) above) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the applicable Conversion Price for any series of Series Preferred pursuant to the terms of Subsections 4.4.4 or 4.4.5 below, the applicable Conversion Price for such series shall be readjusted to such applicable Conversion Price as would have been obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be determined at the time such Option or Convertible Security is issued or amended, any adjustment to the applicable Conversion Price for any series of Series Preferred that would result under the terms of this Subsection 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first determinable (assuming for purposes of calculating such adjustment to the applicable Conversion Price for such series that such issuance or amendment took place at the time such determination can be made).

4.4.4 Adjustment of Conversion Price for Series B-1 Preferred Stock Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the applicable Series Preferred Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to

Subsection 4.4.3), without consideration or for a consideration per share less than the Conversion Price for the Series B-1 Preferred Stock in effect immediately prior to such issue, then the Conversion Price for the Series B-1 Preferred Stock shall be reduced, concurrently with such issue, to the Effective Price (as defined below) of such issuance (calculated to the nearest one-hundredth of a cent). The “**Effective Price**” of Additional Shares of Common Stock shall mean the quotient determined by dividing (1) the aggregate consideration received, or deemed to have been received by the Corporation (determined pursuant to Subsection 4.4.6 hereof), for such Additional Shares of Common Stock, by (2) the total number of Additional Shares of Common Stock issued or sold, or deemed to have been issued or sold by the Corporation under this Subsection 4.4.4.

4.4.5 Adjustment of Conversion Price for Series B Preferred Stock and Series A Preferred Stock Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the applicable Series Preferred Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Conversion Price for the Series B Preferred Stock or Series A Preferred Stock, as applicable, in effect immediately prior to such issue, then the Conversion Price for the Series B Preferred Stock or Series A Preferred Stock, as applicable, shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(a) CP_2 shall mean the Conversion Price for the Series B Preferred Stock or Series A Preferred Stock, as applicable, in effect immediately after such issue of Additional Shares of Common Stock;

(b) CP_1 shall mean the Conversion Price for the Series B Preferred Stock or Series A Preferred Stock, as applicable, in effect immediately prior to such issue of Additional Shares of Common Stock;

(c) “A” shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Series Preferred) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue and all other shares of Common Stock reserved for issuance to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan approved by the Board);

(d) “B” shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(e) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.6 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issuance of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

- (i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;
- (ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board; and
- (iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

- (i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

- (ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.7 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Conversion Price for any series of Series Preferred pursuant to the terms of Subsections 4.4.4 or 4.4.5 above, and such issuance dates occur within a period of no more than ninety (90) days from the first such issuance to the final such issuance, then, upon the final such issuance, the applicable Conversion Price for such series shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the applicable Series Preferred Original Issue Date effect a subdivision of the outstanding Common Stock, the Conversion Price for each series of Series Preferred in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the applicable Series Preferred Original Issue Date combine the outstanding shares of Common Stock, the Conversion Price for each series of Series Preferred in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the applicable Series Preferred Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Conversion Price for each series of Series Preferred in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the applicable Conversion Price for such series then in effect by a fraction equal to:

- (1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and
- (2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing, (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price for each series of Series Preferred shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price for each series shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of Series Preferred simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series Preferred had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the applicable Series Preferred Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Series Preferred shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Series Preferred had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation, merger or similar event involving the Corporation in which the Common Stock (but not the Series Preferred) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.4, 4.6 or 4.7 then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Series Preferred shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Series Preferred immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions in this Section 4 with

respect to the rights and interests thereafter of the holders of the Series Preferred, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the applicable Conversion Price for any series of Series Preferred) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Series Preferred.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price for any series of Series Preferred pursuant to this Section 4, the Corporation at its expense shall as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Series Preferred a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Series Preferred is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Series Preferred (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Conversion Price for such series then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Series Preferred.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Series Preferred) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security;

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Series Preferred a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Series Preferred) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Series Preferred and the Common Stock. Such notice shall be sent at least ten (10) days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the closing of the sale of shares of Common Stock to the public at a price of at least three times (3X) the Original Issue Price of the Series B Preferred Stock and resulting in at least \$40,000,000 in gross proceeds to the Corporation, in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the Requisite Holders (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the “**Mandatory Conversion Time**”), (i) all outstanding shares of Series Preferred shall automatically be converted into shares of Common Stock, at the then effective conversion rate and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Series Preferred shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Series Preferred pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Series Preferred shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 5. At the Mandatory Conversion Time, all outstanding shares of Series Preferred shall be deemed to have been converted into shares of Common Stock, which shall be deemed to be outstanding of record, and all rights with respect to the Series Preferred so converted, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the last sentence of this Subsection 5.2. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form reasonably satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. As soon as practicable after the Mandatory Conversion Time and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Series Preferred, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment in cash of the applicable Aggregate Dividend Amount for each such series, and if so elected pursuant to Subsection 4.1.1, on the shares of Series Preferred converted.

5.3 Effect of Mandatory Conversion. All certificates evidencing shares of Series Preferred which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the Mandatory Conversion Time, be deemed to have been

retired and cancelled and the shares of Series Preferred represented thereby converted into Common Stock for all purposes, notwithstanding the failure of the holder or holders thereof to surrender such certificates on or prior to such date. Such converted Series Preferred may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of each such series of Series Preferred accordingly.

6. Special Mandatory Conversion.

6.1 For purposes of this Section 6, the following definitions shall apply:

(a) An “**Affiliate**” of any Eligible Holder shall mean (A) any partner or retired partner of such Eligible Holder which is a partnership; (B) any member or former member of such Eligible Holder which is a limited liability company; (C) any family member of, or trust for the benefit of, an individual Eligible Holder or (D) any affiliated (as defined under the Securities Exchange Act of 1934, as amended, and the rules promulgated thereunder) investment fund of such Eligible Holder.

(b) “**Closing**”, “**Initial Closing**” and “**Final Closing Date**” shall each have the meaning set forth in the Purchase Agreement.

(c) An “**Eligible Holder**” shall mean (i) any holder (together with its Affiliates) of at least an aggregate of 500,000 shares of Series B Preferred Stock and/or Series B-1 Preferred Stock as of immediately prior to the Initial Closing and (ii) any third party to whom all shares of Series Preferred held by any such holder and its Affiliates are transferred on or prior to the Final Closing Date.

(d) A Non-Participating Holder’s “**Full Common Conversion Amount**” shall mean the number of shares of Common Stock equal to the number of shares of Series Preferred held by such Non-Participating Holder as of the Final Closing Date.

(e) A “**Non-Participating Holder**” shall mean any Eligible Holder that together with the Affiliates of such Eligible Holder, cumulatively purchases less than 50% of such Eligible Holder’s Pay-to-Play Pro Rata Share in all Closings (for clarity, all shares of Series Preferred held by an Eligible Holder and its Affiliates, and all investment amounts of an Eligible Holder and its Affiliates, shall be aggregated together for the purpose of making the determinations described herein).

(f) A Partially-Participating Holder’s “**Partial Common Conversion Amount**” shall mean, with respect to each series of Series Preferred, the number of shares of Common Stock equal to the product of (A) the number of shares of such series of Series Preferred held by such Partially-Participating Holder as of the Final Closing Date multiplied by (B) such Partially-Participating Holder’s Partial Common Conversion Percentage. By way of example, if a Partially-Participating Holder held 1,000 shares of each series of Series Preferred as of the Final Closing Date, had a Pay-to-Play Pro Rata Share in the amount of \$1,000 and together with its Affiliates invested \$750 in all Closings, then such Partially-Participating Holder’s Partial Common Conversion Amount for each series of Series Preferred would be equal to 250 shares of Common Stock $[(1,000) * (1 - (\$750 / \$1,000))] = 250$, and such Partially-

Participating Holder would receive an aggregate of 750 shares of Common Stock (250 shares for each of the three series of Series Preferred held) upon conversion of Series Preferred in accordance with Subsection 6.3.

(g) A Partially-Participating Holder's "**Partial Common Conversion Percentage**" shall mean the percentage equal to one minus the quotient obtained by dividing the aggregate investment amount of such Partially-Participating Holder and its Affiliates in all Closings by such Partially-Participating Holder's Pay-to-Play Pro Rata Share. By way of example, if a Partially-Participating Holder had a Pay-to-Play Pro Rata Share in the amount of \$1,000 and together with its Affiliates invested \$750 in all Closings, then such Partially-Participating Holder's Partial Common Conversion Percentage would be equal to 25% $[(1-(\$750/\$1,000)) = 25\%]$.

(h) A "**Partially-Participating Holder**" shall mean any Eligible Holder that together with the Affiliates of such Eligible Holder, cumulatively purchases at least 50% of such Eligible Holder's Pay-to-Play Pro Rata Share but less than such Eligible Holder's full Pay-to-Play Pro Rata Share in all Closings (for clarity, all shares of Series Preferred held by an Eligible Holder and its Affiliates, and all investment amounts of an Eligible Holder and its Affiliates, shall be aggregated together for the purpose of making the determinations described herein).

(i) An Eligible Holder's "**Pay-to-Play Pro Rata Share**" shall mean the dollar amount set forth opposite such Eligible Holder's name on Exhibit A to the Purchase Agreement under the heading "Pro Rata Share."

(j) The "**Special Mandatory Conversion Time**" shall mean the opening of business on the first business day following the Final Closing Date.

6.2 Notwithstanding anything to the contrary set forth herein, all shares of Series Preferred held by any Non-Participating Holder as of the Final Closing Date shall automatically and without further action on the part of such Non-Participating Holder be converted, effective as of the Special Mandatory Conversion Time, into a number of shares of Common Stock equal to the Full Common Conversion Amount for such Non-Participating Holder, and all rights of such Non-Participating Holder as a holder of Series Preferred with respect to the shares so automatically converted shall terminate immediately upon such automatic conversion.

6.3 Notwithstanding anything to the contrary set forth herein, the Partial Common Conversion Percentage of the shares of each series of Series Preferred held by any Partially-Participating Holder as of the Final Closing Date shall automatically and without further action on the part of such Partially-Participating Holder be converted, effective as of the Special Mandatory Conversion Time, into a number of shares of Common Stock equal to the Partial Common Conversion Amount for such series of Series Preferred for such Partially-Participating Holder, and all rights of such holder as a holder of Series Preferred with respect to the shares so automatically converted shall terminate immediately upon such automatic conversion.

6.4 Upon the occurrence of any of the events specified in Subsections 6.2 and 6.3 above, the applicable outstanding shares of Series Preferred shall be converted automatically and without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent; provided, however, that the Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such conversion unless the certificates evidencing such shares of converted Series Preferred are either delivered to the Corporation or its transfer agent as provided below, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement reasonably satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. Upon the occurrence of such automatic conversion of applicable outstanding shares of Series Preferred, the holders of such converted Series Preferred shall surrender the certificates representing such shares at the office of the Corporation or any transfer agent for such converted Series Preferred. Thereupon, there shall be issued and delivered to such holder promptly at such office and in its name as shown on such surrendered certificate or certificates, a certificate for the number of shares of Common Stock into which the applicable shares of Series Preferred surrendered were convertible on the date on which such automatic conversion occurred (and, for clarity, there shall be no right to payment of the otherwise applicable Aggregate Dividend Amount for such converted Series Preferred).

6.5 No holder of Series Preferred shall have the right to convert shares of Series Preferred pursuant to Subsection 4.1.1 at any time prior to the Special Mandatory Conversion Time.

7. Redeemed or Otherwise Acquired Shares. Any shares of Series Preferred which are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Series Preferred following redemption.

8. Waiver. Any of the rights, powers, preferences and other terms of the Series B/B-1 Preferred Stock set forth herein may be waived on behalf of all holders of Series B/B-1 Preferred Stock by the affirmative consent or vote of the holders of at least 67% of the shares of Series B/B-1 Preferred Stock then outstanding, voting together as a single class. Any of the rights, powers, preferences and other terms of the Series A Preferred Stock set forth herein may be waived on behalf of all holders of Series A Preferred Stock by the affirmative consent or vote of the holders of at least 60% of the shares of Series A Preferred Stock then outstanding, voting together as a separate class.

9. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Series Preferred shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: The Corporation will not, by amendment of this Certificate of Incorporation or through any reorganization, transfer of capital stock or assets, consolidation,

merger, dissolution, issue of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of the Series Preferred set forth herein, but will at all times in good faith assist in the carrying out of all such terms. Without limiting the generality of the foregoing, the Corporation (a) will not increase the par value of any shares of stock receivable on the conversion of the Series Preferred above the applicable Original Issue Price and (b) will take such action as may be necessary or appropriate in order that the Corporation may validly and legally issue fully-paid and nonassessable shares of stock on the conversion of the Series Preferred from time to time outstanding.

SIXTH: Subject to any additional vote required by this Certificate of Incorporation, in furtherance and not in limitation of the powers conferred by statute, the Board is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books and records of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: The Corporation shall, to the maximum extent permitted from time to time under applicable law, indemnify and hold harmless, and upon request shall advance expenses to any person who is or was a party or is threatened to be made a party to any threatened, pending or completed action, suit, proceeding or claim, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was or has agreed to be a director or officer of the Corporation or while a director or officer is or was serving at the request of the Corporation as a director, officer, employee or agent of any other corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against any and all expenses (including attorney's fees and expenses), judgments, fines, penalties and amounts paid in settlement or incurred in connection with the investigation, preparation to defend or defense of such action, suit, proceeding or claim. Such rights arising

under any bylaw, agreement, vote of directors or stockholders or otherwise shall inure to the benefit of the heirs and legal representatives of such person.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification.

ELEVENTH: The Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An “**Excluded Opportunity**” is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Series Preferred or any partner, member, director, manager, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, “**Covered Persons**”), unless such matter, transaction or interest was presented to, or acquired, created or developed by, or otherwise came into the possession of, a Covered Person expressly and solely in such Covered Person’s capacity as a director of the Corporation. No amendment, repeal or modification of this Article Eleventh shall apply to or have any effect on the liability or alleged liability of any officer, director or stockholder of the Corporation for or with respect to any opportunities which such officer, director or stockholder becomes aware prior to such amendment, modification or repeal.

* * *

3: That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4: That this Fourth Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of the Restated Certificate, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Fourth Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 17th day of September, 2013.

By: /s/ Erik Holmlin
Erik Holmlin
Chief Executive Officer