

**EIGHTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
ALTOR BIOSCIENCE CORPORATION**

Altor BioScience Corporation, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"),

DOES HEREBY CERTIFY:

FIRST: That the name of the Corporation is Altor BioScience Corporation. The Corporation was originally incorporated under the same name; and the original Certificate of Incorporation, the Amended and Restated Certificate of Incorporation, the Second Amended and Restated Certificate of Incorporation, the Third Amended and Restated Certificate of Incorporation, the Fourth Amended and Restated Certificate of Incorporation, the Fifth Amended and Restated Certificate of Incorporation, the Sixth Amended and Restated Certificate of Incorporation and the Seventh Amended and Restated Certificate of Incorporation of the Corporation were filed with the Secretary of State of the State of Delaware on June 11, 2002, August 1, 2002, February 25, 2005, November 14, 2005, May 24, 2007, August 1, 2008, September 23, 2009 and January 10, 2011, respectively.

SECOND: That by unanimous written consent of the Board of Directors of the Corporation, filed with the minutes of the Corporation, resolutions were duly adopted setting forth the proposed amendments to the Seventh Amended and Restated Certificate of Incorporation of the Corporation and declaring said amendments to be advisable.

THIRD: That thereafter, pursuant to resolution of its Board of Directors, the stockholders of the Corporation took action by executing a written consent in lieu of a meeting in accordance with Section 228 of the General Corporation Law of the State of Delaware to approve such amendments.

FOURTH: That said amendments and restatement were duly adopted in accordance with the provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware. This Eighth Amended and Restated Certificate of Incorporation restates and integrates and further amends the provisions of the Seventh Amended and Restated Certificate of Incorporation of the Corporation. See attached.

FIFTH: That the capital of said Corporation shall not be reduced under or by reason of said amendments.

IN WITNESS WHEREOF, the Corporation has caused this Eighth Amended and Restated Certificate of Incorporation to be signed by its duly authorized officer, this 5 day of July, 2012.

ALTOR BIOSCIENCE CORPORATION

By: 
Hing C. Wong, President

EIGHTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
ALTOR BIOSCIENCE CORPORATION

ARTICLE I

The name of this corporation is Altor BioScience Corporation (the "Corporation").

ARTICLE II

The address of the registered office of this Corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, 19801, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE III

The nature of the business of the Corporation and the objects or purposes to be transacted, promoted or carried on by it are to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware (the "General Corporation Law").

ARTICLE IV

A. Classes of Stock.

1. Classes of Stock. This Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares that this Corporation is authorized to issue is One Hundred Ninety Eight Million Two Hundred Two Thousand Four Hundred Ninety Nine (198,202,499) shares. One Hundred Twelve Million (112,000,000) shares shall be Common Stock each with a par value of \$0.001 per share and Eighty Six Million Two Hundred Two Thousand Four Hundred Ninety Nine (86,202,499) shares shall be Preferred Stock, each with a par value of \$0.001 per share.

B. Rights, Preferences and Restrictions of Preferred Stock. The Preferred Stock authorized by this Eighth Amended and Restated Certificate of Incorporation may be issued from time to time in one or more series. The rights, preferences, privileges, and restrictions granted to and imposed on the Series A-1 Preferred Stock, which series shall consist of Five Million Eight Hundred Seventeen Thousand Four Hundred Four (5,817,404) shares (the "Series A-1 Preferred Stock"), the Series A-2 Preferred Stock, which series shall consist of Three Million Six Hundred Thousand (3,600,000) shares (the "Series A-2 Preferred Stock" and, together with the Series A-1 Preferred Stock, the "Series A Preferred Stock"), the Series B-1 Preferred Stock, which series shall consist of Thirty-Six Million (36,000,000) shares (the "Series B-1 Preferred Stock"), the Series C-1 Preferred Stock, which series shall consist of Twenty-One Million Two Hundred One Thousand Forty (21,201,040) shares (the "Series C-1 Preferred Stock"), and the Series D Preferred Stock, which series shall consist of Nineteen Million Five Hundred Eighty Four

Thousand Fifty Five (19,584,055) shares (the "Series D Preferred Stock"), are as set forth below in this Section IV(B). Other than the shares of the Series A Preferred Stock which are outstanding as of the date hereof, no shares of the Series A Preferred Stock will be issued by the Corporation.

1. Dividend Provisions.

(a) The holders of shares of Series D Preferred Stock shall be entitled to receive dividends, on a pari passu basis, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation) on the Series C-1 Preferred Stock, Series B-1 Preferred Stock, the Series A-2 Preferred Stock, Series A-1 Preferred Stock or Common Stock of this Corporation, at the rate of \$0.03462 per share per annum for the Series D Preferred Stock (as adjusted for any stock splits, stock dividends, combinations, recapitalizations or the like (collectively, "Recapitalizations")), payable when, as, and if declared by the Board of Directors. Such dividends shall be cumulative so that, if such dividends in respect of any previous or current annual dividend period, at the annual rate specified above, shall not have been paid, the deficiency shall first be fully paid before any dividend or other distribution shall be paid on or declared and set apart for the Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock, Series A-1 Preferred Stock or Common Stock. Any accumulation of dividends on the Series D Preferred Stock shall not bear interest. Cumulative dividends with respect to a share of Series D Preferred Stock which are accrued, payable and/or in arrears shall, upon conversion of such share into Common Stock, subject to the rights and series of Preferred Stock which may from time to time come into existence, be paid to the extent assets are legally available therefor and any amounts for which assets are not legally available shall be paid promptly as assets become legally available therefor. Any partial payment shall be made ratably among the holders of Series D Preferred Stock in proportion to the payment each such holder would receive if the full amount of such dividends were paid.

(b) After payment of any dividends pursuant to Section IV(B)(1)(a), the holders of shares of Series C-1 Preferred Stock shall be entitled to receive dividends, on a pari passu basis, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation) on the Series B-1 Preferred Stock, Series A-2 Preferred Stock, Series A-1 Preferred Stock or Common Stock of this Corporation, at the rate of \$0.0346 per share per annum for the Series C-1 Preferred Stock (as adjusted for any Recapitalizations), payable when, as, and if declared by the Board of Directors. Such dividends shall not be cumulative. Any partial payment shall be made ratably among the holders of Series C-1 Preferred Stock in proportion to the payment each such holder would receive if the full amount of such dividends were paid.

(c) After payment of any dividends pursuant to Section IV(B)(1)(a) and IV(B)(1)(b), the holders of shares of Series B-1 Preferred Stock shall be entitled to receive dividends, on a pari passu basis, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock

or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation) on the Series A-2 Preferred Stock, Series A-1 Preferred Stock or Common Stock of this Corporation, at the rate of \$0.0306 per share per annum for the Series B-1 Preferred Stock (as adjusted for any Recapitalizations), payable when, as, and if declared by the Board of Directors. Such dividends shall not be cumulative. Any partial payment shall be made ratably among the holders of Series B-1 Preferred Stock in proportion to the payment each such holder would receive if the full amount of such dividends were paid.

(d) After payment of any dividends pursuant to Section IV(B)(1)(a), IV(B)(1)(b) and IV(B)(1)(c), the holders of shares of Series A-2 Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation) on the Series A-1 Preferred Stock and the Common Stock of this Corporation, at the rate of \$0.02228 per share per annum for the Series A-2 Preferred Stock (as adjusted for any Recapitalizations), payable when, as, and if declared by the Board of Directors. Such dividends shall not be cumulative. Any partial payment shall be made ratably among the holders of Series A-2 Preferred Stock in proportion to the payment each such holder would receive if the full amount of such dividends were paid.

(e) After payment of any dividends pursuant to Section IV(B)(1)(a), IV(B)(1)(b), IV(B)(1)(c) and IV(B)(1)(d), the holders of shares of Series A-1 Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this Corporation) on the Common Stock of this Corporation, at the rate of \$0.01746 per share per annum for the Series A-1 Preferred Stock (as adjusted for any Recapitalizations), payable when, as, and if declared by the Board of Directors. Such dividends shall not be cumulative. Any partial payment shall be made ratably among the holders of Series A-1 Preferred Stock in proportion to the payment each such holder would receive if the full amount of such dividends were paid.

(f) After payment of any dividends pursuant to Sections IV(B)(1)(a), IV(B)(1)(b), IV(B)(1)(c), IV(B)(1)(d) and IV(B)(1)(e), any additional dividends shall be distributed among all holders of Common Stock and all holders of Series D Preferred Stock in proportion to the number of shares of Common Stock which would be held by such holders if all shares of such series of Preferred Stock were converted into Common Stock at the then effective conversion rate for such series of Preferred Stock.

(g) Notwithstanding the foregoing, upon the Corporation's actual receipt in cash of any upfront payments, royalties, milestone payments or any other similar payments (collectively, the "Royalties") in connection with any agreements entered into by the Corporation with third parties relating to Pagibaximab (which such payments the Corporation shall use its good faith efforts to actually obtain as soon as is reasonably practicable),

(i) The holders of shares of Series D Preferred Stock shall be entitled to receive as soon as practicable: (x) first, an amount equal to, per share, the sum of the Original Series D Issue Price (as defined below) and a 10% internal rate of return (the "First Royalty Payment") and (y) second, after the payment of the First Royalty Payment, an amount equal to the dividends to be received by the holders of Series D Preferred Stock pursuant to Section IV(B)(1)(a) (the "Second Royalty Payment"). Any partial payments shall be made ratably among the holders of the Series D Preferred Stock in proportion to the payment each such holder would receive if the full amount of such payments were made under this Section IV(B)(1)(g)(i). The 10% internal rate of return which comprises a portion of the First Royalty Payment (the "IRR Amount") shall be paid after the full Original Series D Issue Price is paid pursuant to Section IV(B)(1)(g)(i)(x). The outstanding IRR Amount shall be calculated at the time of any distribution of Royalties and shall accrue and increase based upon the remaining portion, at all times, of the Original Series D Issue Price which, at such times, has not yet been returned to the holders of shares of Series D Preferred Stock pursuant to Section IV(B)(1)(g)(i)(x), such that when the entire Original Series D Issue Price has been so returned to such holders the outstanding IRR Amount shall cease to further accrue and increase (but, to the extent unpaid, shall remain outstanding and payable pursuant to the terms hereof). Notwithstanding the foregoing, in no event shall the aggregate IRR Amount payable hereunder be greater than 1.0 times the Original Series D Issue Price or less than 0.61051 times the Original Series D Issue Price. At the time of any distribution of Royalties, the Second Royalty Payment shall be calculated based upon the full Original Series D Issue Price. At the time of any distribution of Royalties, all outstanding amounts pursuant to the terms of this Section IV(B)(1)(g)(i) shall be calculated and satisfied prior to any Royalty distributions pursuant to Section IV(B)(1)(g)(ii) and/or Section IV(B)(1)(g)(iii) below.

(ii) If, after the payment to the holders of Series D Preferred Stock, of the First Royalty Payment and the Second Royalty Payment, the amount of the remaining Royalties equals or exceeds \$6,000,000 (in the aggregate, based on all Royalties received), the holders of shares of Series C-1 Preferred Stock, the holders of shares of Series B-1 Preferred Stock, the holders of shares of Series A-2 Preferred Stock and the holders of shares of Series A-1 Preferred Stock (in such order of priority and preference) shall be entitled to receive cash in amounts equal to dividends to be received by the holders of each such series of Preferred Stock from the date of the closing of the initial sale of shares of Series D Preferred Stock to the date of such payment, respectively, in accordance with Sections IV(B)(1)(b), IV(B)(1)(c), IV(B)(1)(d) and IV(B)(1)(e) (without adjustment for any Recapitalizations) (the "Preferred Dividend Payments"). Any partial payment shall be made ratably among the holders of the Series C-1 Preferred Stock, the holders of the Series B-1 Preferred Stock, the holders of the Series A-2 Preferred Stock and the holders of the Series A-1 Preferred Stock (in such order of priority and preference) in proportion to the payment each such holder would receive if the full amount of such dividends were paid. At the time of any distribution of Royalties, all outstanding amounts pursuant to the terms of Section IV(B)(1)(g)(i) and this Section IV(B)(1)(g)(ii), as applicable, shall be calculated and satisfied prior to any Royalty distributions pursuant to Section IV(B)(1)(g)(iii) below.

(iii) After the payments set forth in Section IV(B)(1)(g)(i) and IV(B)(1)(g)(ii) have been made, at least 75% (or such higher percentage as is approved by the Board of Directors of this Corporation) of any remaining Royalties shall be distributed among all

holders of Preferred Stock and Common Stock in proportion to the number of shares of Common Stock which would be held by such holder if all shares of such Preferred Stock were converted into Common Stock at the then effective conversion rate for such series of Preferred Stock.

2. Liquidation Preference.

(a) In the event of any liquidation, dissolution or winding up of this Corporation, either voluntary and involuntary, and subject to Section IV(B)(2)(g) below, the holders of Series D Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of this Corporation to the holders of Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the sum of (A) \$0.577 (the "Original Series D Issue Price") for each outstanding share of Series D Preferred Stock and (B) an amount equal to all (1) cumulative dividends on such share which are accrued, payable and/or in arrears plus (2) declared but unpaid dividends on such share (subject to adjustment for Recapitalizations) (in aggregate, the "Series D Liquidation Preference"). If upon the occurrence of such event, the assets and funds thus distributed among the holders of the Series D Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of this Corporation legally available for distribution to stockholders shall be distributed ratably among the holders of the Series D Preferred Stock in proportion to the full preferential amount each such holder is otherwise entitled to receive under this Section IV(B)(2)(a).

(b) Upon completion of the distribution required by Section IV(B)(2)(a) and subject to Section IV(B)(2)(g) below, the holders of Series C-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of this Corporation to the holders of Series B-1 Preferred Stock, Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the sum of (A) \$0.577 (the "Original Series C-1 Issue Price") for each outstanding share of Series C-1 Preferred Stock and (B) an amount equal to all declared but unpaid dividends on such share (subject to adjustment for Recapitalizations). If upon the occurrence of such event, the assets and funds thus distributed among the holders of the Series C-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of this Corporation legally available for distribution to stockholders shall be distributed ratably among the holders of the Series C-1 Preferred Stock in proportion to the full preferential amount each such holder is otherwise entitled to receive under this Section IV(B)(2)(b).

(c) Upon completion of the distribution required by Section IV(B)(2)(a) and IV(B)(2)(b) and subject to Section IV(B)(2)(g) below, the holders of Series B-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of this Corporation to the holders of Series A Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the sum of (A) \$0.51 (the "Original Series B-1 Issue Price") for each outstanding share of Series B-1 Preferred Stock and (B) an amount equal to all declared but unpaid dividends on such share (subject to adjustment for Recapitalizations). If upon the occurrence of such event, the assets and funds thus distributed among the holders of the Series B-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of this Corporation legally

available for distribution to stockholders shall be distributed ratably among the holders of the Series B-1 Preferred Stock in proportion to the full preferential amount each such holder is otherwise entitled to receive under this Section IV(B)(2)(c).

(d) Upon completion of the distribution required by Section IV(B)(2)(a), IV(B)(2)(b) and IV(B)(2)(c) and subject to Section IV(B)(2)(g) below, the holders of Series A-2 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of this Corporation to the holders of Series A-1 Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the sum of (A) \$0.5571 (the "Original Series A-2 Issue Price") for each outstanding share of Series A-2 Preferred Stock and (B) an amount equal to all dividends declared on such share after the date hereof but not yet paid (subject to adjustment for Recapitalizations). If upon the occurrence of such event, the assets and funds thus distributed among the holders of the Series A-2 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of this Corporation legally available for distribution to stockholders shall be distributed ratably among the holders of the Series A-2 Preferred Stock in proportion to the full preferential amount each such holder is otherwise entitled to receive under this Section IV(B)(2)(d).

(e) Upon completion of the distribution required by Section IV(B)(2)(a), IV(B)(2)(b), IV(B)(2)(c) and IV(B)(2)(d) and subject to Section IV(B)(2)(g) below, the holders of Series A-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of this Corporation to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the sum of (A) \$0.43651 (the "Original Series A-1 Issue Price") for each outstanding share of Series A-1 Preferred Stock and (B) an amount equal to all dividends declared on such share after the date hereof but not yet paid (subject to adjustment for Recapitalizations). If upon the occurrence of such event, the assets and funds thus distributed among the holders of the Series A-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of this Corporation legally available for distribution to stockholders shall be distributed ratably among the holders of the Series A-1 Preferred Stock in proportion to the full preferential amount each such holder is otherwise entitled to receive under this Section IV(B)(2)(e).

(f) Upon completion of the distributions required by Sections IV(B)(2)(a), IV(B)(2)(b), IV(B)(2)(c), IV(B)(2)(d) and IV(B)(2)(e), all of the remaining assets of this Corporation available for distribution to stockholders shall be distributed among the holders of Series D Preferred Stock pro rata based on the number of shares of Series D Preferred Stock held by each until the holders of Series D Preferred Stock shall have received an amount per share equal to the Original Series D Issue Price, and thereafter, any remaining assets of this Corporation available for distribution to the stockholders shall be distributed among the holders of Common Stock pro rata based on the number of shares of Common Stock held by each.

(g) Notwithstanding the foregoing, in the event of any liquidation, dissolution or winding up of this Corporation, each holder of Preferred Stock shall be entitled to receive in respect of the shares of Preferred Stock held by such holder, an amount equal to the greater of (i) the amounts set forth in Sections IV(B)(2)(a), IV(B)(2)(b), IV(B)(2)(c), IV(B)(2)(d), IV(B)(2)(e)

and/or IV(B)(2)(f), as applicable, and (ii) the value in liquidation of the shares of Common Stock (including fractional shares thereof) into which such shares of Preferred Stock are convertible immediately prior to such liquidation, dissolution or winding up of this Corporation.

(h) (i) For purposes of this Section IV(B)(2), a liquidation, dissolution or winding up of this Corporation shall be deemed to be occasioned by, or to include (unless the holders of at least eighty-five percent (85%) until the Second Closing (as defined in the Stock Purchase Agreement dated as of January 18, 2011), and after the Second Closing, seventy-five percent (75%) of the Series D Preferred Stock then outstanding, voting together as a single class, in each case, with voting rights determined in accordance with Section IV(B)(5), shall determine otherwise), (A) the acquisition of this Corporation by another entity by means of any reorganization, merger or consolidation (but excluding any reorganization, merger or consolidation effected exclusively for the purpose of changing the domicile of the Corporation), or any transaction or series of related transactions in which the Corporation's stockholders of record as constituted immediately prior to such transaction or series of related transactions will, immediately after such transaction or series of related transactions (by virtue of securities issued in such transaction or series of related transactions) fail to hold at least fifty percent (50%) of the voting power of the resulting or surviving Corporation following such transaction or series of related transactions; or (B) a sale of all or substantially all of the assets of this Corporation to another entity in which the Corporation's stockholders of record as constituted immediately prior to such sale will, immediately after such sale, fail to hold at least fifty (50%) of the voting power of the purchasing entity; provided, however, that the issuance and sale of the shares of the Series D Preferred Stock shall not be deemed to be a liquidation, dissolution or winding up of this Corporation.

(ii) In any of such events, if the consideration received by this Corporation is other than cash, its value will be deemed its fair market value as determined in good faith by the Board of Directors of this Corporation. Any securities shall be valued as follows:

(A) The value of securities not subject to investment letter or other similar restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder's status as an affiliate or former affiliate) shall be:

(1) 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 thirty (30) day period (or portion thereof) ending three (3) days prior to the closing;

(2) 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 thirty (30) day period (or portion thereof) ending three (3) days prior to the closing; and

(3) if there is no active public market, the value shall be the fair market value thereof, as determined by the Board of Directors of this Corporation.

(B) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder's status as an affiliate or former affiliate) shall be to make an appropriate discount from the value determined as above in Section IV(B)(2)(h)(ii)(A) to reflect the approximate fair market value thereof, as determined by the Board of Directors of this Corporation.

(iii) In the event the requirements of this Section IV(B)(2)(h) are not complied with, this Corporation shall forthwith either:

(A) cause such closing to be postponed until such time as the requirements of this Section IV(B)(2)(h) have been complied with; or

(B) cancel such transaction, in which event the rights, preferences and privileges of the holders of the Series D Preferred Stock, Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock and Series A-1 Preferred Stock shall revert to and be the same as such rights, preferences and privileges existing immediately prior to the date of the first notice referred to in Section IV(B)(2)(h)(iv) hereof.

(iv) This Corporation shall give each holder of record of Series D Preferred Stock, Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock and Series A-1 Preferred Stock written notice of such impending transaction not later than twenty (20) days prior to the stockholders' meeting called to approve such transaction, or twenty (20) days prior to the closing of such transaction, whichever is earlier, and shall also notify such holders in writing of the final approval of such transaction. The first of such notices shall describe the material terms and conditions of the impending transaction, and this Corporation shall thereafter give such holders prompt notice of any material changes. The transaction shall in no event take place sooner than twenty (20) days after this Corporation has given the first notice provided for herein or sooner than ten (10) days after this Corporation has given notice of any material changes provided for herein; provided, however, that such periods may be shortened upon the written consent of the holders of Preferred Stock that are entitled to such notice rights or similar notice rights and that represent at least a majority of the voting power of all then outstanding shares of such Preferred Stock.

3. Redemption.

(a) Subject to the rights of Preferred Stock which may from time to time come into existence, at any time after the fourth anniversary date of the initial closing of the sale of shares of Series D Preferred Stock, after the receipt by the Corporation of a written request from the holders of not less than eighty-five percent (85%) until the Second Closing, and after the Second Closing, seventy-five percent (75%), of the then outstanding Series D Preferred Stock that all shares of Series D Preferred Stock be redeemed, the Corporation shall redeem from any source of funds legally available therefor, the Series D Preferred Stock beginning on the ninetieth (90th) day after the day of receipt of such written notice, and continuing thereafter on the anniversary of such redemption date (each a "Series D Redemption Date") until the sixth anniversary of such date, whereupon the remaining Series D Preferred Stock outstanding shall be

redeemed. The Corporation shall effect such redemptions on the applicable Series D Redemption Dates by paying in cash in exchange for the shares of Series D Preferred Stock to be redeemed a sum equal to the Series D Liquidation Preference on such shares at such time of actual redemption (the "Series D Redemption Price"). The number of shares of Series D Preferred Stock that the Corporation shall be required under this Section IV(B)(3)(a) to redeem on any one Series D Redemption Date shall be equal to the amount determined by dividing the (i) the aggregate number of shares of Series D Preferred Stock outstanding immediately prior to the Series D Redemption Date by (ii) the number of remaining Series D Redemption Dates (including the Series D Redemption Date to which such calculation applies). Any redemption effected pursuant to this Section IV(B)(3)(a) shall be made on a pro rata basis among the holders of the Series D Preferred Stock in proportion to the number of shares of Series D Preferred Stock then held by such holders. To the extent that the Corporation's cash flow does not permit the full amount of the Series D Redemption Price to be paid on any Series D Redemption Date, the amount of the Series D Redemption Price which is not paid in cash on a Series D Redemption Date shall be paid by the Corporation by the delivery of a promissory note, containing commercially reasonable standard terms and bearing interest at the rate of 10% per annum to each such holder of shares of Series D Preferred Stock.

(b) Neither the Corporation nor the holders of Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock or Series A-1 Preferred Stock shall have the unilateral right to call or redeem or cause to have called or redeemed any shares of the Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock or Series A-1 Preferred Stock.

4. Conversion. The holders of the Series D Preferred Stock, Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock and Series A-1 Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert. Each share of Series D Preferred Stock, Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock and Series A-1 Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of this Corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price for each such series of Preferred Stock by the Conversion Price applicable to such share, determined as hereafter provided, in effect on the date the certificate is surrendered for conversion. The initial Conversion Price per share for shares of Series D Preferred Stock shall be the Original Series D Issue Price, the initial Conversion Price per share for shares of Series C-1 Preferred Stock shall be the Original Series C-1 Issue Price, the initial Conversion Price per share for shares of Series B-1 Preferred Stock shall be the Original Series B-1 Issue Price, the initial Conversion Price per share for shares of Series A-2 Preferred Stock shall be the Original Series A-2 Issue Price, and the initial Conversion Price per share for shares of Series A-1 Preferred Stock shall be the Original Series A-1 Issue Price; provided, however, that the Conversion Price for the Series D Preferred Stock, Series C-1 Preferred Stock, Series B-1 Preferred Stock, Series A-2 Preferred Stock and Series A-1 Preferred Stock shall be subject to adjustment as set forth in Section IV(B)(4)(d).

(b) Automatic Conversion.

(i) Each share of Series D Preferred Stock shall automatically be converted into shares of Common Stock at the Conversion Price at the time in effect for such series of Preferred Stock immediately upon the earlier of (i) except as provided in Section IV(B)(4)(c), this Corporation's sale of its Common Stock in a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act of 1933, as amended (the "Act"), the public offering price of which is not less than \$2.00 per share (as adjusted for any stock splits, stock dividends, recapitalizations or the like) and \$30,000,000 in the aggregate (a "Qualified Public Offering") or (ii) the date specified by written consent or agreement of the holders of at least eighty-five percent (85%) until the Second Closing, and after the Second Closing, seventy-five percent (75%), of the then outstanding shares of Series D Preferred Stock voting together as a single class with voting power determined as provided in Section IV(B)(5) below.

(ii) Each share of Series C-1 Preferred Stock shall automatically be converted into shares of Common Stock at the Conversion Price at the time in effect for such series of Preferred Stock immediately upon the earlier of (i) except as provided in Section IV(B)(4)(c), this Corporation's sale of its Common Stock in a Qualified Public Offering, (ii) the date specified by written consent or agreement of the holders of at least two-thirds (66 ⅔%) of the then outstanding shares of Series C-1 Preferred Stock voting together as a single class with voting power determined as provided in Section IV(B)(5) below or (iii) upon conversion of the shares of Series D Preferred Stock into shares of Common Stock pursuant to Section IV(B)(4)(b)(i) above.

(iii) Each share of Series B-1 Preferred Stock shall automatically be converted into shares of Common Stock at the Conversion Price at the time in effect for such series of Preferred Stock immediately upon the earlier of (i) except as provided in Section IV(B)(4)(c), this Corporation's sale of its Common Stock in a Qualified Public Offering, (ii) the date specified by written consent or agreement of the holders of at least two-thirds (66 ⅔%) of the then outstanding shares of Series B-1 Preferred Stock voting together as a single class with voting power determined as provided in Section IV(B)(5) below or (iii) upon conversion of the shares of Series D Preferred Stock into shares of Common Stock pursuant to Section IV(B)(4)(b)(i) above.

(iv) Each share of Series A-2 Preferred Stock and Series A-1 Preferred Stock shall automatically be converted into shares of Common Stock at the Conversion Price at the time in effect for such series of Preferred Stock immediately upon the earlier of (i) except as provided in Section IV(B)(4)(c), this Corporation's sale of its Common Stock in a Qualified Public Offering, (ii) the date specified by written consent or agreement of the holders of at least a majority of the then outstanding shares of Series A-2 Preferred Stock and Series A-1 Preferred Stock voting together as a single class with voting power determined as provided in Section IV(B)(5) below or (iii) upon conversion of the shares of Series D Preferred Stock into shares of Common Stock pursuant to Section IV(B)(4)(b)(i) above.

(c) Mechanics of Conversion. Before any holder of Preferred Stock shall be entitled to convert the same into shares of Common Stock, he, she or it shall surrender the certificate or certificates therefor, duly endorsed, at the office of this Corporation or of any transfer agent for the Preferred Stock, and shall give written notice to this Corporation at its

principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. This Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date. If the conversion is in connection with an underwritten offering of securities registered pursuant to the Act, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the persons entitled to receive the Common Stock upon conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities.

(d) Conversion Price Adjustments of Preferred Stock. The Conversion Prices of the Series D Preferred Stock, Series C-1 Preferred Stock, Series B-1 Preferred Stock and Series A Preferred Stock shall be subject to adjustment from time to time as follows:

(i) (A) If this Corporation shall issue, after the date hereof (the "Purchase Date"), any Additional Stock (as defined below) without consideration or for a consideration per share less than the Conversion Price for a particular series of Preferred Stock in effect immediately prior to the issuance of such Additional Stock, the Conversion Price for such series of Preferred Stock in effect immediately prior to each such issuance shall forthwith (except as otherwise provided in this Section IV(B)(4)(d)(i)) be adjusted to a price determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding and deemed issued pursuant to Section IV(B)(4)(d)(i)(E) immediately prior to such issuance plus the number of shares of Common Stock that the aggregate consideration received by this Corporation for such issuance would purchase at such Conversion Price; and the denominator of which shall be the number of shares of Common Stock outstanding and deemed issued pursuant to Section IV(B)(4)(d)(i)(E) immediately prior to such issuance plus the number of shares of such Additional Stock.

(B) No adjustment of the Conversion Price for any series of Preferred Stock shall be made in an amount less than one cent per share, provided that any adjustments that are not required to be made by reason of this sentence shall be carried forward and shall be either taken into account in any subsequent adjustment made prior to three (3) years from the date of the event giving rise to the adjustment being carried forward, or shall be made at the end of three (3) years from the date of the event giving rise to the adjustment being carried forward. Except to the limited extent provided for in Sections IV(B)(4)(d)(i)(E)(3) and IV(B)(4)(d)(i)(E)(4), no adjustment of such Conversion Price pursuant to this Section IV(B)(4)(d)(i) shall have the effect of increasing the Conversion Price above the Conversion Price in effect immediately prior to such adjustment.

(C) In the case of the issuance of Additional Stock for cash, the consideration shall be deemed to be the amount of cash paid therefor before deducting any reasonable discounts, commissions or other expenses allowed, paid or incurred by this Corporation for any underwriting or otherwise in connection with the issuance and sale thereof.

(D) In the case of the issuance of the Additional Stock for a consideration in whole or in part other than cash, the consideration other than cash shall be deemed to be the fair value thereof as determined by the Board of Directors irrespective of any accounting treatment.

(E) In the case of the issuance (whether before, on or after the applicable Purchase Date) of options to purchase or rights to subscribe for Common Stock, securities by their terms convertible into or exchangeable for Common Stock or options to purchase or rights to subscribe for such convertible or exchangeable securities, the following provisions shall apply for all purposes of this Section IV(B)(4)(d)(i) and Section IV(B)(4)(d)(ii):

(1) The aggregate maximum number of shares of Common Stock deliverable upon exercise (assuming the satisfaction of any conditions to exercisability, including, without limitation, the passage of time) of such options to purchase or rights to subscribe for Common Stock shall be deemed to have been issued at the time such options or rights were issued and for a consideration equal to the consideration (determined in the manner provided in Sections IV(B)(4)(d)(i)(C) and IV(B)(4)(d)(i)(D)), if any, received by this Corporation upon the issuance of such options or rights plus the minimum exercise price provided in such options or rights for the Common Stock covered thereby.

(2) The aggregate maximum number of shares of Common Stock deliverable upon conversion of, or in exchange (assuming the satisfaction of any conditions to exercisability, including, without limitation, the passage of time) for any such convertible or exchangeable securities or upon the exercise of options to purchase or rights to subscribe for such convertible or exchangeable securities and subsequent conversion or exchange thereof shall be deemed to have been issued at the time such securities were issued or such options or rights were issued and for a consideration equal to the consideration, if any, received by this Corporation for any such securities and related options or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the minimum additional consideration, if any, to be received by this Corporation upon the conversion or exchange of such securities or the exercise of any related options or rights (the consideration in each case to be determined in the manner provided in Sections IV(B)(4)(d)(i)(C) and IV(B)(4)(d)(i)(D)).

(3) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to this Corporation upon exercise of such options or rights or upon conversion of or in exchange for such convertible or exchangeable securities, including, but not limited to, a change resulting from the antidilution provisions thereof, the Conversion Price of each series of Preferred

Stock, to the extent in any way affected by or computed using such options, rights or securities, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options or rights or the conversion or exchange of such securities.

(4) Upon the expiration of any such options or rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, the Conversion Price of each series of Preferred Stock, to the extent in any way affected by or computed using such options, rights or securities or options or rights related to such securities, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and convertible or exchangeable securities that remain in effect) actually issued upon the exercise of such options or rights, upon the conversion or exchange of such securities or upon the exercise of the options or rights related to such securities.

(5) The number of shares of Common Stock deemed issued and the consideration deemed paid therefor pursuant to Sections IV(B)(4)(d)(i)(E)(1) and IV(B)(4)(d)(i)(E)(2) shall be appropriately adjusted to reflect any change, termination or expiration of the type described in either Section IV(B)(4)(d)(i)(E)(3) or IV(B)(4)(d)(i)(E)(4).

(ii) "Additional Stock" shall mean any shares of Common Stock issued (or deemed to have been issued pursuant to Section IV(B)(4)(d)(i)(E)) by this Corporation after the applicable Purchase Date other than:

(A) shares of Common Stock issued pursuant to a transaction described in Section IV(B)(4)(d)(iii) hereof;

(B) shares of Common Stock issued or deemed issued to employees, consultants, officers, directors or vendors (if in transactions with primarily non-financing purposes) of this Corporation directly or pursuant to a stock option plan or restricted stock purchase plan (I) approved by the holders of at least a majority of the then outstanding shares of Preferred Stock and (II) approved by the Board of Directors unless such issuance exceeds the number of shares currently authorized under existing stock option plans or restricted stock purchase plans;

(C) shares of Common Stock issued or issuable pursuant to the closing of the Qualified Public Offering;

(D) shares of Common Stock issued pursuant to the conversion or exercise of convertible or exercisable securities outstanding as of the date hereof;

(E) shares of Common Stock issued or issuable in connection with a bona fide business acquisition of or by this Corporation, whether by merger, consolidation, sale of assets, sale or exchange of stock or otherwise, each as unanimously approved by the Board of Directors of this Corporation;

(F) (i) shares of Common Stock, up to an aggregate amount of 200,000 shares, issued or issuable to persons or entities with which this Corporation has business relationships, provided such issuances are for other than primarily equity financing purposes and (ii) shares of Common Stock, in any amount, issued or issuable to persons or entities with which this Corporation has business relationships, provided such issuances are for other than primarily equity financing purposes, so long as such issuances (in excess of 200,000 shares) have been unanimously approved by the Board of Directors of this Corporation and the holders of at least eighty-five percent (85%) until the Second Closing, and after the Second Closing seventy-five percent (75%), of the then outstanding shares of Series D Preferred Stock voting separately as a single class; or

(G) shares of Common Stock issued or issuable in connection with any transaction where such securities so issued are excepted from the definition "Additional Stock" by the unanimous vote of the Board of Directors.

(iii) In the event this Corporation should at any time or from time to time after the applicable Purchase Date fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "Common Stock Equivalents") without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Conversion Prices of each series of Preferred Stock shall be appropriately 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 and those issuable with respect to such Common Stock Equivalents.

(iv) If the number of shares of Common Stock outstanding at any time after the applicable Purchase Date is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Conversion Prices for each series of Preferred Stock shall be appropriately 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 outstanding shares.

(e) Other Distributions. In the event this Corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this Corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in Section IV(B)(4)(d)(iii), then, in each such case for the purpose of this Section IV(B)(4)(e), the holders of each series of Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Common Stock of this Corporation into which their shares of such series of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of this Corporation entitled to receive such distribution.

(f) Recapitalizations. If at any time or from time to time there shall be a recapitalization of the Common Stock (other than a subdivision, combination or merger or sale of assets transaction provided for elsewhere in Section IV(B)(2) or this Section IV(B)(4)) provision shall be made so that the holders of each series of the Preferred Stock shall thereafter be entitled to receive upon conversion of such series of Preferred Stock the number of shares of stock or other securities or property of this Corporation or otherwise, to which a holder of the number of shares of Common Stock deliverable upon conversion of the Preferred Stock held by such holder would have been entitled on such recapitalization. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section IV(B)(4) with respect to the rights of the holders of each series of Preferred Stock after the recapitalization to the end that the provisions of this Section IV(B)(4) (including adjustment of the Conversion Price then in effect and the number of shares purchasable upon conversion of each such series of Preferred Stock) shall be applicable after that event as nearly equivalent as may be practicable.

(g) No Impairment. This Corporation will not, by amendment of this Eighth Amended and Restated Certificate of Incorporation or through any reorganization, recapitalization, transfer of assets, consolidation, merger, 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 to be observed or performed hereunder by this Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section IV(B)(4) and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of Preferred Stock against impairment.

(h) No Fractional Shares and Certificate as to Adjustments.

(i) No fractional shares shall be issued upon the conversion of any share or shares of Preferred Stock. 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 then fair market value of a share of Common Stock as determined in good faith by the Board of Directors. The number of shares of Common Stock to be issued upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the number of shares of Common Stock issuable upon such aggregate conversion.

(ii) Upon the occurrence of each adjustment or readjustment of the Conversion Price of any series of Preferred Stock pursuant to this Section IV(B)(4), this Corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of such series of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. This Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (A) such adjustment and readjustment, (B) the Conversion Price for such series of Preferred Stock at the time in effect, and (C) the number of shares of Common Stock and the amount, if any, of other property that at the time would be received upon the conversion of a share of such series of Preferred Stock.

(i) Notices of Record Date. In the event of any taking by this Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right, this Corporation shall mail to each holder of Preferred Stock, at least twenty (20) days prior to the date specified therein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend, distribution or right.

(j) Reservation of Stock Issuable Upon Conversion. This Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Preferred Stock; 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 Preferred Stock, in addition to such other remedies as shall be available to the holder of such Preferred Stock, this Corporation will take such corporate action as may, in the opinion of its counsel, 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 best efforts to obtain the requisite stockholder approval of any necessary amendment to this Eighth Amended and Restated Certificate of Incorporation.

(k) Notices. Any notice required by the provisions of this Section IV(B)(4) to be given to the holders of shares of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of this Corporation.

5. Voting Rights. The holder of each share of Preferred Stock shall have the right to one vote for each share of Common Stock into which such share of Preferred Stock could then be converted. With respect to such vote and except as otherwise expressly provided herein or as required by applicable law, such holder shall have full voting rights and powers equal to the voting rights and powers of the holders of Common Stock, and shall be entitled, notwithstanding any provision hereof, to notice of any stockholders' meeting in accordance with the Bylaws of this Corporation, and shall be entitled to vote, together with holders of Common Stock as a single class, with respect to any matter upon which holders of Common Stock have the right to vote. Fractional votes shall not, however, be permitted and any fractional voting rights available on an as-converted basis (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward).

6. Protective Provisions.

(a) So long as any shares of Series D Preferred Stock are outstanding, this Corporation shall not, without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the then outstanding shares of Series D Preferred Stock, Series C-1 Preferred Stock, Series B-1 Preferred Stock and Series A Preferred

Stock, voting together as a single class, either directly or by amendment, merger, consolidation or otherwise, take any of the following actions which result in, cause or effect:

(i) the liquidation, dissolution, or winding down of the Corporation (as defined in Section IV(B)(2) hereof) and/or the cessation of all or of a substantial part of the business of the Corporation;

(ii) the merger, reorganization, restructuring or sale, exclusive license or other disposition of all or substantially all of the Corporation's assets and/or business;

(iii) the declaration or payment of any dividends (other than dividends on the Preferred Stock);

(iv) the repurchase, redemption or retirement of capital stock (other than repurchases of Common Stock at the Corporation's option from employees, consultants, officers or directors pursuant to arrangements with such person approved by the Board of Directors) or in connection with payments to the holders of Preferred Stock as set forth in Sections IV(B)(1), IV(B)(2) and IV(B)(3);

(v) the issuance or redemption of debt securities or other incurrence of indebtedness or the extension of any credit or loan guarantee in respect of any loan or grant of credit exceeding \$500,000;

(vi) the reservation of additional shares under the Corporation's employee stock incentive plans without the approval of the Compensation Committee of the Board of Directors;

(vii) the assignment or other sale of patents or other intellectual property of the Corporation other than the grant of non-exclusive licenses in the ordinary course of business;

(viii) any increase or decrease (other than by redemption or conversion) in the total number of authorized shares of the Preferred Stock or other capital stock of the Corporation;

(ix) amendments to the Eighth Amended and Restated Certificate of Incorporation or Bylaws of the Corporation;

(x) waivers of any provision of the Eighth Amended and Restated Certificate of Incorporation or Bylaws of the Corporation relative to the Preferred Stock;

(xi) any action, by amendment of the Eighth Amended and Restated Certificate of Incorporation, merger, consolidation or otherwise, that would adversely alter or change the preferences, rights, privileges or powers of, or the restrictions provided for the benefit of, the Preferred Stock;

(xii) the sale, transfer, lease, license or any other disposition of any material asset or business of the Corporation outside the Corporation's ordinary course of

business, including the sale, transfer or other disposition of Corporation's exclusive rights to any intellectual property to a third party; or

(xiii) authorize or issue, or obligate itself to issue, any other equity security, including any other security convertible into or exercisable for any equity security having a preference over, or being on a parity with, any series of Preferred Stock with respect to dividends, liquidation, redemption or voting.

(b) Subject to the rights of series of Preferred Stock which may from time to time come into existence, so long as any shares of Series D Preferred Stock are outstanding, this Corporation shall not take any of the following actions without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least eighty-five percent (85%) until the Second Closing, and after the Second Closing seventy-five percent (75%), of the then outstanding shares of Series D Preferred Stock voting separately as a single class:

(i) any action, by amendment of the Eighth Amended and Restated Certificate of Incorporation, merger, consolidation or otherwise, that would adversely alter or change the preferences, rights, privileges or powers of, or the restrictions provided for the benefit of, such Series D Preferred Stock.

(c) Subject to the rights of series of Preferred Stock which may from time to time come into existence, so long as any shares of Series C-1 Preferred Stock are outstanding, this Corporation shall not take any of the following actions without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least two-thirds (66 ⅔%) of the then outstanding shares of Series C-1 Preferred Stock voting separately as a single class:

(i) any action, by amendment of the Eighth Amended and Restated Certificate of Incorporation, merger, consolidation or otherwise, that would adversely alter or change the preferences, rights, privileges or powers of, or the restrictions provided for the benefit of, such Series C-1 Preferred Stock.

(d) Subject to the rights of series of Preferred Stock which may from time to time come into existence, so long as any shares of Series B-1 Preferred Stock are outstanding, this Corporation shall not take any of the following actions without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least two-thirds (66 ⅔%) of the then outstanding shares of Series B-1 Preferred Stock voting separately as a single class:

(i) any action, by amendment of the Eighth Amended and Restated Certificate of Incorporation, merger, consolidation or otherwise, that would adversely alter or change the preferences, rights, privileges or powers of, or the restrictions provided for the benefit of, such Series B-1 Preferred Stock.

(e) Subject to the rights of series of Series A Preferred Stock which may from time to time come into existence, so long as any shares of Series A Preferred Stock are outstanding, this Corporation shall not pursue any of the following actions without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least a majority of the then outstanding shares of Series A Preferred Stock voting separately as a single class:

(i) any action, by amendment of the Eighth Amended and Restated Certificate of Incorporation, merger, consolidation or otherwise, that would adversely alter or change the preferences, rights, privileges or powers of, or the restrictions provided for the benefit of, such Series A Preferred Stock.

7. Status of Redeemed or Converted Stock. In the event any shares of Preferred Stock shall be redeemed or converted pursuant to Sections IV(B)(3) or IV(B)(4), the shares so redeemed or converted shall be cancelled and shall not be issuable by this Corporation. This Eighth Amended and Restated Certificate of Incorporation shall be appropriately amended to effect the corresponding reduction in this Corporation's authorized capital stock.

C. Common Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Common Stock are as set forth below in this Section IV(C).

1. Dividend Rights. Subject to the prior rights of holders of all classes of stock at the time outstanding having prior rights as to dividends, the holders of the Common Stock shall be entitled to receive, when and as declared by the Board of Directors, out of any assets of this Corporation legally available therefor, such dividends as may be declared from time to time by the Board of Directors.

2. Liquidation Rights. Upon the liquidation, dissolution or winding up of this Corporation, the assets of this Corporation shall be distributed as provided in Section IV(B)(2).

3. Redemption. The Common Stock is not redeemable.

4. Voting Rights. The holder of each share of Common Stock shall have the right to one vote for each such share, and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of this Corporation, and shall be entitled to vote upon such matters and in such manner as may be provided by law.

ARTICLE V

Except as otherwise provided in this Eighth Amended and Restated Certificate of Incorporation, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter or repeal the Bylaws of the Corporation.

ARTICLE VI

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation, and regulation of the powers of the Corporation and of its directors and of its stockholders or any class thereof, as the case may be, it is further provided:

1. The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed by, or in the manner provided in, the Bylaws. The phrase "whole Board" and the phrase "total number of directors" shall be deemed to have the same meaning, to wit, the total number of directors which the Corporation would have if there

were no vacancies. Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

2. After the original or other Bylaws of the Corporation have been adopted, amended, or repealed, as the case may be, in accordance with the provisions of Section 109 of the General Corporation Law, and, after the Corporation has received any payment for any of its stock, the power to adopt, amend, or repeal the Bylaws of the Corporation may be exercised by the Board of Directors of the Corporation; provided, however, that any provision for the classification of directors of the Corporation for staggered terms pursuant to Section 141(d) of the General Corporation Law shall be set forth in an initial Bylaw or in a Bylaw adopted by the stockholders of the Corporation entitled to vote unless provisions for such classification shall be set forth in this Eighth Amended and Restated Certificate of Incorporation.

3. Whenever the Corporation shall be authorized to issue only one class of stock, each outstanding share shall entitle the holder thereof to notice of, and the right to vote at, any meeting of stockholders. Whenever the Corporation shall be authorized to issue more than one class of stock, no outstanding share of any class of stock which is denied voting power under the provisions of this Eighth Amended and Restated Certificate of Incorporation shall entitle the holder thereof to the right to vote at any meeting of stockholders except as the provisions of Section 242(b)(2) of the General Corporation Law shall otherwise require; provided, that no share of any such class which is otherwise denied voting power shall entitle the holder thereof to vote upon the increase or decrease in the number of authorized shares of said class.

ARTICLE VII

Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof, or on the application of any receiver or receivers appointed for this Corporation under the provisions of Section 291 of Title 8 of the Delaware Code or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under the provisions of Section 279 of Title 8 of the Delaware Code order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as a consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

ARTICLE VIII

A director of this Corporation shall, to the fullest extent permitted by the General Corporation Law as it now exists or as it may hereafter be amended, not be personally liable to

this Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to this Corporation or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law, or (iv) for any transaction from which the director derived any improper personal benefit. If the General Corporation Law is amended, after approval by the stockholders of this Article, to authorize any action by the Corporation which further eliminates or limits the personal liability of directors, then the liability of a director of this Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law, as so amended.

Any amendment, repeal or modification of this Article VIII, or the adoption of any provision of this Eighth Amended and Restated Certificate of Incorporation inconsistent with this Article VIII, shall not adversely affect any right or protection of a director of this Corporation existing at the time of such amendment, repeal, modification or adoption.

ARTICLE IX

The Corporation shall, to the fullest extent permitted by the provisions of Section 145 of the General Corporation Law, as the same may be amended and supplemented, indemnify any and all persons whom it shall have power to indemnify under said section from and against any and all of the expenses, liabilities, or other matters referred to in or covered by said section, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any Bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee, or agent and shall inure to the benefit of the heirs, executors, and administrators of such person.

Any amendment, repeal or modification of this Article IX, or the adoption of any provision of this Eighth Amended and Restated Certificate of Incorporation inconsistent with this Article IX, shall not adversely affect any right or protection existing at the time of such amendment, repeal, modification or adoption.

ARTICLE X

Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of this Corporation may be kept (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of this Corporation.

ARTICLE XI

The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Eighth Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

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