

**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
AMIRA PHARMACEUTICALS, INC.**

Walter Tendler hereby certifies that:

ONE: The original name of this company is A-Research, Inc. and the date of filing the original Certificate of Incorporation of this company with the Secretary of State of the State of Delaware was February 23, 2005.

TWO: He is the duly elected and acting Chief Financial Officer of Amira Pharmaceuticals, Inc., a Delaware corporation.

THREE: The Certificate of Incorporation of this company is hereby amended and restated to read as follows:

I.

The name of this company is Amira Pharmaceuticals, Inc. (the "*Company*" or the "*Corporation*").

II.

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

III.

The purpose of the Company is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("*DGCL*").

IV.

A. The Company is authorized to issue two classes of stock to be designated, respectively, "*Common Stock*" and "*Preferred Stock*." The total number of shares which the Company is authorized to issue is 92,695,712 shares, 50,000,000 shares of which shall be Common Stock (the "*Common Stock*") and 42,695,712 shares of which shall be Preferred Stock (the "*Preferred Stock*"). The Preferred Stock shall have a par value of \$0.001 per share and the Common Stock shall have a par value of \$0.001 per share.

B. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by the

affirmative vote of the holders of a majority of the stock of the Company entitled to vote (voting together as a single class on an as-if-converted basis).

C. 14,616,000 of the authorized shares of Preferred Stock are hereby designated "Series A Preferred Stock" (the "*Series A Preferred*"), 20,833,335 of the authorized shares of Preferred Stock are hereby designated "Series B Preferred Stock" (the "*Series B Preferred*"), and 7,246,377 of the authorized shares of Preferred Stock are hereby designated "Series B-1 Preferred Stock" (the "*Series B-1 Preferred*" and, together with the Series A Preferred and Series B Preferred, the "*Series Preferred*").

D. The rights, preferences, privileges, restrictions and other matters relating to the Series Preferred are as follows:

1. DIVIDEND RIGHTS.

(a) Holders of Series B Preferred and Series B-1 Preferred, *pari passu* with each other and in preference to the holders of Series A Preferred and Common Stock, shall be entitled to receive, when, as and if declared by the Board of Directors (the "*Board*"), but only out of funds that are legally available therefor, cash dividends at the rate of eight percent (8%) of the Original Issue Price (as defined below) of the Series B Preferred and Series B-1 Preferred, respectively, per annum on each outstanding share of Series B Preferred and Series B-1 Preferred, respectively. Such dividends shall be payable only when, as and if declared by the Board and shall be non-cumulative.

(b) After payment of any dividends pursuant to Section 1(a) above, holders of Series A Preferred, in preference to the holders of Common Stock, shall be entitled to receive, when, as and if declared by the Board, but only out of funds that are legally available therefor, cash dividends at the rate of eight percent (8%) of the Original Issue Price of the Series A Preferred per annum on each outstanding share of Series A Preferred. Such dividends shall be payable only when, as and if declared by the Board and shall be non-cumulative.

(c) The "*Original Issue Price*" of (i) the Series A Preferred shall be \$1.00, (ii) the Series B Preferred shall be \$1.20 and (iii) the Series B-1 Preferred shall be \$1.38 per share (each as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares after the Filing Date (as defined below)).

(d) So long as any shares of Series Preferred are outstanding, the Company shall not pay or declare any dividend, whether in cash or property, or make any other distribution on the Common Stock, or purchase, redeem or otherwise acquire for value any shares of Common Stock until all dividends as set forth in Section 1(a) and Section 1(b) above on the Series Preferred shall have been paid or declared and set apart, except for:

(i) acquisitions of Common Stock by the Company pursuant to agreements which permit the Company to repurchase such shares at cost (or the lesser of cost or fair market value) upon termination of services to the Company;

(ii) acquisitions of Common Stock in exercise of the Company's right of first refusal to repurchase such shares approved by the Board; or

(iii) distributions to holders of Common Stock in accordance with Sections 3 and 4.

(e) In the event dividends are paid on any share of Common Stock, the Company shall pay an additional dividend on all outstanding shares of Series Preferred in a per share amount equal (on an as-if-converted to Common Stock basis) to the amount paid or set aside for each share of Common Stock.

(f) The provisions of Sections 1(d) and 1(e) shall not apply to a dividend payable solely in Common Stock to which the provisions of Section 5(f) hereof are applicable, or any repurchase of any outstanding securities of the Company that is approved by (i) the Board and (ii) the Series Preferred as may be required by this Certificate of Incorporation.

(g) As authorized by Section 402.5(c) of the California General Corporation Law ("CGCL"), Sections 502 and 503 shall not apply with respect to distributions on shares junior to the Series Preferred as they relate to repurchases of shares of Common Stock at the lower of cost or fair market value upon termination of employment or service as a consultant or director that are approved by the Board.

2. VOTING RIGHTS.

(a) **General Rights.** Each holder of shares of the Series Preferred shall be entitled to the number of votes equal to the number of shares of Common Stock into which such shares of Series Preferred could be converted (pursuant to Section 5 hereof) immediately after the close of business on the record date fixed for such meeting or the effective date of such written consent and shall have voting rights and powers equal to the voting rights and powers of the Common Stock and shall be entitled to notice of any stockholders' meeting in accordance with the bylaws of the Company. Except as otherwise provided herein or as required by law, the Series Preferred shall vote together with the Common Stock at any annual or special meeting of the stockholders and not as a separate class, and may act by written consent in the same manner as the Common Stock.

(b) **Separate Vote of Series Preferred.** In addition to any other vote or consent required herein or by law, the vote or written consent of the holders of at least sixty percent (60%) of the outstanding Series Preferred shall be necessary for effecting or validating the following actions (whether by merger, recapitalization or otherwise):

(i) Any amendment, waiver, modification, termination or any other change in the rights, preferences or privileges of the Series Preferred;

(ii) Any amendment, waiver, alteration, or repeal of any provision of the Certificate of Incorporation or the Bylaws of the Company (including any filing of a Certificate of Designation);

(iii) Any increase or decrease in the authorized number of shares of Common Stock or Preferred Stock;

(iv) Any authorization or any designation, whether by reclassification or otherwise, of any new class or series of stock or any other securities convertible into equity securities of the Company ranking on a parity with or senior to the Series Preferred in right of redemption, liquidation preference, voting or dividend rights or any increase in the authorized or designated number of any such new class or series;

(v) Any redemption, repurchase, payment or declaration of dividends or other distributions with respect to Common Stock or Preferred Stock (except for acquisitions of Common Stock by the Company permitted by Section 1(d)(i), (ii) and (iii) hereof);

(vi) Any agreement by the Company or its stockholders regarding an Asset Transfer or Acquisition (each as defined in Section 4 hereof); or

(vii) Any increase or decrease in the authorized number of members of the Company's Board.

(c) Separate Vote of Series B Preferred and Series B-1 Preferred.
In addition to any other vote or consent required herein or by law, the vote or written consent of the holders of at least sixty-five percent (65%) of the outstanding Series B Preferred and Series B-1 Preferred (voting together as a single class) shall be necessary for effecting or validating the following actions (whether by merger, recapitalization or otherwise):

(i) Any alteration or change in the rights, preferences or privileges of the Series B Preferred or Series B-1 Preferred, so as to affect them adversely and in a manner different than other classes of stock; *provided, however*, that the authorization or issuance after the Filing Date of shares of one or more series of Preferred Stock having voting, liquidation, dividend or other powers, preferences or special rights, whether senior or *pari passu* to the Series B Preferred or Series B-1 Preferred or otherwise, shall not be deemed to be an alteration or change that affects the Series B Preferred or Series B-1 Preferred adversely and in a manner different than other classes of stock; and

(ii) Any increase or decrease in the authorized number of shares of Series B Preferred or Series B-1 Preferred.

(d) Election of Board of Directors.

(i) The holders of Series A Preferred, voting as a separate class, shall be entitled to elect three (3) members of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors.

(ii) The holders of Series B Preferred, voting 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 Company's stockholders for the election of directors, and to remove from office such director and to fill any vacancy caused by the resignation, death or removal of such directors.

(iii) The holders of Common Stock, voting 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 Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors.

(iv) The holders of Common Stock and Series Preferred, voting together as a single class on an as-if-converted basis, shall be entitled to elect all remaining members of the Board at each meeting or pursuant to each consent of the Company's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors.

3. LIQUIDATION RIGHTS.

(a) Upon any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary (a "*Liquidation Event*"), before any distribution or payment shall be made to the holders of any Series A Preferred or Common Stock, the holders of Series B Preferred and Series B-1 Preferred shall be entitled to be paid out of the assets of the Company legally available for distribution for each share of Series B Preferred or Series B-1 Preferred held by them, an amount per share of Series B Preferred and Series B-1 Preferred equal to applicable Original Issue Price plus all declared and unpaid dividends on such Series B Preferred or Series B-1 Preferred, as applicable. If, upon any such Liquidation Event, the assets of the Company shall be insufficient to make payment in full to all holders of Series B Preferred and Series B-1 Preferred of the liquidation preference set forth in this Section 3(a), then such assets (or consideration) shall be distributed among the holders of Series B Preferred and Series B-1 Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled under this Section 3(a).

(b) After payment of the full liquidation preference of the Series B Preferred and Series B-1 Preferred as set forth in Section 3(a) above, before any distribution or payment shall be made to the holders of any Common Stock, the holders of Series A Preferred shall be entitled to be paid out of the assets of the Company legally available for distribution for each share of Series A Preferred held by them, an amount per share of Series A Preferred equal to the Original Issue Price of the Series A Preferred plus all declared and unpaid dividends on the Series A Preferred. If, upon any such Liquidation Event, the assets of the Company shall be insufficient to make payment in full to all holders of Series A Preferred of the liquidation preference set forth in this Section 3(b), then such assets (or consideration) shall be distributed among the holders of Series A Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled under this Section 3(b).

(c) After the payment of the full liquidation preference of the Series Preferred as set forth in Sections 3(a) and 3(b) above, the remaining assets of the Company legally available for distribution, if any, shall be distributed ratably to the holders of the Common Stock.

(d) Shares of Series Preferred shall not be entitled to be converted into shares of Common Stock in order to participate in any distribution, or series of distributions, as shares of Common Stock, without first foregoing participation in the distribution, or series of distributions, as shares of Series Preferred. Notwithstanding the foregoing, in the event of a Liquidation Event, a holder of Series Preferred shall be entitled to receive, for each share of Series Preferred then held, out of the proceeds of such Liquidation Event, the greater of the amount of cash, securities or other property to which such holder would be entitled to receive in a Liquidation Event pursuant to (i) Section 3(a) or 3(b) above, as applicable, or (ii) the amount of cash, securities or other property to which such holder would be entitled to receive in a Liquidation Event with respect to such shares if such shares had been converted to Common Stock immediately prior to such Liquidation Event.

4. ASSET TRANSFER OR ACQUISITION RIGHTS.

(a) Unless otherwise agreed to by the holders of at least 60% of the outstanding Series Preferred, in the event that the Company is a party to an Acquisition or Asset Transfer (as hereinafter defined), then each holder of Series Preferred shall be entitled to receive, for each share of Series Preferred then held, out of the proceeds of such Acquisition or Asset Transfer, the greater of the amount of cash, securities or other property to which such holder would be entitled to receive in a Liquidation Event pursuant to (i) Section 3(a) or 3(b) above, as applicable, or (ii) the amount of cash, securities or other property to which such holder would be entitled to receive in a Liquidation Event with respect to such shares if such shares had been converted to Common Stock immediately prior to such Acquisition or Asset Transfer.

(b) For the purposes of this Section 4: (i) "**Acquisition**" shall mean (A) any consolidation or merger of the Company with or into any other corporation or other entity or person, or any other corporate reorganization, other than any such consolidation, merger or reorganization in which the stockholders of the Company immediately prior to such consolidation, merger or reorganization, continue to hold at least a majority of the voting power of the surviving entity in substantially the same proportions (or, if the surviving entity is a wholly owned subsidiary, its parent) immediately after such consolidation, merger or reorganization; or (B) any transaction or series of related transactions to which the Company is a party in which in excess of fifty percent (50%) of the Company's voting power is transferred; provided that an Acquisition shall not include any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by the Company or any successor or indebtedness of the Company is cancelled or converted or a combination thereof; and (ii) "**Asset Transfer**" shall mean a sale of all or substantially all of the assets of the Company or the exclusive license of substantially all of the intellectual property of the Company material to the business of the Company resulting in the Company being unable to continue its business as in effect prior to such license.

(c) In any Acquisition or Asset Transfer, if the consideration to be received is securities of a corporation or other property other than cash, its value will be deemed its fair market value as determined in good faith by the Board on the date such determination is made.

5. CONVERSION RIGHTS.

The holders of the Series Preferred shall have the following rights with respect to the conversion of the Series Preferred into shares of Common Stock (the “*Conversion Rights*”):

(a) **Optional Conversion.** Subject to and in compliance with the provisions of this Section 5, any shares of Series Preferred may, at the option of the holder, be converted at any time into fully-paid and nonassessable shares of Common Stock. The number of shares of Common Stock to which a holder of Series A Preferred shall be entitled upon conversion shall be the product obtained by multiplying the “*Series A Preferred Conversion Rate*” then in effect (determined as provided in Section 5(b)) by the number of shares of Series A Preferred being converted. The number of shares of Common Stock to which a holder of Series B Preferred shall be entitled upon conversion shall be the product obtained by multiplying the “*Series B Preferred Conversion Rate*” then in effect (determined as provided in Section 5(c)) by the number of shares of Series B Preferred being converted. The number of shares of Common Stock to which a holder of Series B-1 Preferred shall be entitled upon conversion shall be the product obtained by multiplying the “*Series B-1 Preferred Conversion Rate*” then in effect (determined as provided in Section 5(c)) by the number of shares of Series B-1 Preferred being converted.

(b) Conversion Rate.

(i) **Series A Preferred Conversion Rate.** The conversion rate in effect at any time for conversion of the Series A Preferred (the “*Series A Preferred Conversion Rate*”) shall be the quotient obtained by dividing the Original Issue Price of the Series A Preferred by the “*Series A Preferred Conversion Price*,” calculated as provided in Section 5(c)(i).

(ii) **Series B Preferred Conversion Rate.** The conversion rate in effect at any time for conversion of the Series B Preferred (the “*Series B Preferred Conversion Rate*”) shall be the quotient obtained by dividing the Original Issue Price of the Series B Preferred by the “*Series B Preferred Conversion Price*,” calculated as provided in Section 5(c)(ii).

(iii) **Series B-1 Preferred Conversion Rate.** The conversion rate in effect at any time for conversion of the Series B-1 Preferred (the “*Series B-1 Preferred Conversion Rate*”) shall be the quotient obtained by dividing the Original Issue Price of the Series B-1 Preferred by the “*Series B-1 Preferred Conversion Price*,” calculated as provided in Section 5(c)(iii).

(iv) **References to Conversion Rate.** The Series A Preferred Conversion Rate, Series B Preferred Conversion Rate and the Series B-1 Preferred Conversion Rate are each referred to herein as a "**Conversion Rate.**"

(c) **Conversion Price.**

(i) **Series A Preferred Conversion Price.** The conversion price for the Series A Preferred shall initially be the Original Issue Price of the Series A Preferred (the "**Series A Preferred Conversion Price**"). Such initial Series A Preferred Conversion Price shall be adjusted from time to time in accordance with this Section 5. All references to the Series A Preferred Conversion Price herein shall mean the Series A Preferred Conversion Price as so adjusted.

(ii) **Series B Preferred Conversion Price.** The conversion price for the Series B Preferred shall initially be the Original Issue Price of the Series B Preferred (the "**Series B Preferred Conversion Price**"). Such initial Series B Preferred Conversion Price shall be adjusted from time to time in accordance with this Section 5. All references to the Series B Preferred Conversion Price herein shall mean the Series B Preferred Conversion Price as so adjusted.

(iii) **Series B-1 Preferred Conversion Price.** The conversion price for the Series B-1 Preferred shall initially be the Original Issue Price of the Series B-1 Preferred (the "**Series B-1 Preferred Conversion Price**"). Such initial Series B-1 Preferred Conversion Price shall be adjusted from time to time in accordance with this Section 5. All references to the Series B-1 Preferred Conversion Price herein shall mean the Series B-1 Preferred Conversion Price as so adjusted.

(iv) **References to Conversion Price.** The Series A Preferred Conversion Price, the Series B Preferred Conversion Price, and the Series B-1 Preferred Conversion Price are each referred to herein as a "**Conversion Price.**"

(d) **Mechanics of Conversion.** Each holder of Series Preferred who desires to convert the same into shares of Common Stock pursuant to this Section 5 shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Company or any transfer agent for the Series Preferred, and shall give written notice to the Company at such office that such holder elects to convert the same. Such notice shall state the number of shares of Series Preferred being converted. Thereupon, the Company shall promptly issue and deliver at such office to such holder a certificate or certificates for the number of shares of Common Stock to which such holder is entitled and shall promptly pay (i) in cash or, to the extent sufficient funds are not then legally available therefor, in Common Stock (at the Common Stock's fair market value determined by the Board as of the date of such conversion), any declared and unpaid dividends on the shares of Series Preferred being converted and (ii) in cash (at the Common Stock's fair market value determined by the Board as of the date of conversion) the value of any fractional share of Common Stock otherwise issuable to any holder of Series Preferred. Such conversion shall be deemed to have been made at the close of business on the date of such surrender of the certificates representing the shares of Series Preferred to be

converted, and the person entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock on such date.

(e) **Adjustment for Stock Splits and Combinations.** If at any time or from time to time after the filing date of this Amended and Restated Certificate of Incorporation (the "**Filing Date**"), the Company effects a subdivision of the outstanding Common Stock without a corresponding subdivision of the Series Preferred, the Conversion Price applicable to such series that is in effect immediately before that subdivision shall be proportionately decreased. Conversely, if at any time or from time to time after the Filing Date the Company combines the outstanding shares of Common Stock into a smaller number of shares without a corresponding combination of the Series Preferred, the Conversion Price applicable to such series that is in effect immediately before the combination shall be proportionately increased. Any adjustment under this Section 5(e) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) **Adjustment for Common Stock Dividends and Distributions.** If at any time or from time to time on or after the Filing Date, the Company pays to holders of Common Stock a dividend or other distribution in additional shares of Common Stock without a corresponding dividend or other distribution to holders of Preferred Stock, the Conversion Price applicable to such series that is then in effect shall be decreased as of the time of such issuance, as provided below:

(i) The applicable Conversion Price shall be adjusted by multiplying the Conversion Price then in effect by a fraction equal to:

(A) the numerator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance, and

(B) the denominator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

(ii) If the Company fixes a record date to determine which holders of Common Stock are entitled to receive such dividend or other distribution, the Conversion Price shall be fixed as of the close of business on such record date and the number of shares of Common Stock shall be calculated immediately prior to the close of business on such record date; and

(iii) If such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price shall be adjusted pursuant to this Section 5(f) to reflect the actual payment of such dividend or distribution.

(g) **Adjustment for Reclassification, Exchange, Substitution, Reorganization, Merger or Consolidation.** If at any time or from time to time on or after the Filing Date the Common Stock issuable upon the conversion of the Series Preferred is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification, merger, consolidation or otherwise (other than an Acquisition or Asset Transfer as defined in Section 4 or a subdivision or combination of shares or stock dividend provided for elsewhere in this Section 5), in any such event each holder of Series Preferred shall then have the right to convert such stock into the kind and amount of stock and other securities and property receivable upon such recapitalization, reclassification, merger, consolidation or other change by holders of the maximum number of shares of Common Stock into which such shares of Series Preferred could have been converted immediately prior to such recapitalization, reclassification, merger, consolidation or change, all subject to further adjustment as provided herein or with respect to such other securities or property by the terms thereof. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 5 with respect to the rights of the holders of Series Preferred after the capital reorganization to the end that the provisions of this Section 5 (including adjustment of the Conversion Price then in effect and the number of shares issuable upon conversion of the Series Preferred) shall be applicable after that event and be as nearly equivalent as practicable.

(h) **Sale of Shares Below Series Preferred Conversion Price.**

(i) If at any time or from time to time after the Filing Date the Company issues or sells, or is deemed by the express provisions of this Section 5(h) to have issued or sold, Additional Shares of Common Stock (as defined below), other than as provided in Section 5(e), 5(f) or 5(g) above, for an Effective Price (as defined below) less than the then effective Series A Preferred Conversion Price, Series B Preferred Conversion Price or Series B-1 Preferred Conversion Price (a "*Qualifying Dilutive Issuance*"), then and in each such case, the then existing Series A Preferred Conversion Price, Series B Preferred Conversion Price and/or Series B-1 Preferred Conversion Price, as applicable, shall be reduced, as of the opening of business on the date of such issue or sale, to a price determined by multiplying each such Conversion Price in effect immediately prior to such issuance or sale by a fraction:

(A) the numerator of which shall be (A) the number of shares of Common Stock deemed outstanding (as determined below) immediately prior to such issue or sale, plus (B) the number of shares of Common Stock which the Aggregate Consideration (as defined below) received or deemed received by the Company for the total number of Additional Shares of Common Stock so issued would purchase at such then-existing Conversion Price, as applicable, and

(B) the denominator of which shall be the number of shares of Common Stock deemed outstanding (as determined below) immediately prior to such issue or sale plus the total number of Additional Shares of Common Stock so issued.

For the purposes of the preceding sentence, the number of shares of Common Stock deemed to be outstanding as of a given date shall be the sum of (A) the number of shares of Common Stock outstanding, (B) the number of shares of Common Stock into which the then

outstanding shares of Series Preferred could be converted if fully converted on the day immediately preceding the given date, and (C) the number of shares of Common Stock which are issuable upon the exercise or conversion of all other rights, options and convertible securities outstanding on the day immediately preceding the given date.

(ii) No adjustment shall be made to the any Conversion Price in an amount less than \$0.01 per share. Any adjustment required by this Section 5(h) shall be rounded to the nearest \$0.01 per share. Any adjustment otherwise required by this Section 5(h) that is not required to be made due to the preceding two sentences shall be included in any subsequent adjustment to such Conversion Price.

(iii) For the purpose of making any adjustment required under this Section 5(h), the aggregate consideration received by the Company for any issue or sale of securities (the "**Aggregate Consideration**") shall be defined as: (A) to the extent it consists of cash, be computed at the gross amount of cash received by the Company before deduction of any underwriting or similar commissions, compensation or concessions paid or allowed by the Company in connection with such issue or sale and without deduction of any expenses payable by the Company, (B) to the extent it consists of property other than cash, be computed at the fair value of that property as determined in good faith by the Board, and (C) if Additional Shares of Common Stock, Convertible Securities (as defined below) or rights or options to purchase either Additional Shares of Common Stock or Convertible Securities are issued or sold together with other stock or securities or other assets of the Company for a consideration which covers both, be computed as the portion of the consideration so received that may be reasonably determined in good faith by the Board to be allocable to such Additional Shares of Common Stock, Convertible Securities or rights or options.

(iv) For the purpose of the adjustment required under this Section 5(h), if the Company issues or sells (x) Preferred Stock or other stock, options, warrants, purchase rights or other securities convertible into, Additional Shares of Common Stock (such convertible stock or securities being herein referred to as "**Convertible Securities**") or (y) rights or options for the purchase of Additional Shares of Common Stock or Convertible Securities and if the Effective Price of such Additional Shares of Common Stock is less than the Series A Preferred Conversion Price, Series B Preferred Conversion Price, or Series B-1 Preferred Conversion Price, as the case may be, in each case the Company shall be deemed to have issued at the time of the issuance of such rights or options or Convertible Securities the maximum number of Additional Shares of Common Stock issuable upon exercise or conversion thereof and to have received as consideration for the issuance of such shares an amount equal to the total amount of the consideration, if any, received by the Company for the issuance of such rights or options or Convertible Securities plus:

(A) in the case of such rights or options, the minimum amounts of consideration, if any, payable to the Company upon the exercise of such rights or options; and

(B) in the case of Convertible Securities, the minimum amounts of consideration, if any, payable to the Company upon the conversion thereof (other

than by cancellation of liabilities or obligations evidenced by such Convertible Securities); *provided* that if the minimum amounts of such consideration cannot be ascertained, but are a function of antidilution or similar protective clauses, the Company shall be deemed to have received the minimum amounts of consideration without reference to such clauses; provided however, that if the minimum amount of consideration payable to the Company upon the exercise or conversion of rights, options or Convertible Securities is reduced over time or on the occurrence or non-occurrence of specified events other than by reason of antidilution adjustments, the Effective Price shall be recalculated using the figure to which such minimum amount of consideration is reduced; *provided further*, that if the minimum amount of consideration payable to the Company upon the exercise or conversion of such rights, options or Convertible Securities is subsequently increased, the Effective Price shall be again recalculated using the increased minimum amount of consideration payable to the Company upon the exercise or conversion of such rights, options or Convertible Securities.

(v) No further adjustment of the Series A Preferred Conversion Price, Series B Conversion Price or the Series B-1 Preferred Conversion Price, as adjusted upon the issuance of such rights, options or Convertible Securities, shall be made as a result of the actual issuance of Additional Shares of Common Stock or the exercise of any such rights or options or the conversion of any such Convertible Securities. If any such rights or options or the conversion privilege represented by any such Convertible Securities shall expire without having been exercised, the Series A Preferred Conversion Price, Series B Conversion Price or Series B-1 Preferred Conversion Price, as adjusted upon the issuance of such rights, options or Convertible Securities shall be readjusted to the Series A Preferred Conversion Price, Series B Conversion Price or Series B-1 Preferred Conversion Price which would have been in effect had an adjustment been made on the basis that the only Additional Shares of Common Stock so issued were the Additional Shares of Common Stock, if any, actually issued or sold on the exercise of such rights or options or rights of conversion of such Convertible Securities, and such Additional Shares of Common Stock, if any, were issued or sold for the consideration actually received by the Company upon such exercise, plus the consideration, if any, actually received by the Company for the granting of all such rights or options, whether or not exercised, plus the consideration received for issuing or selling the Convertible Securities actually converted, plus the consideration, if any, actually received by the Company (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities) on the conversion of such Convertible Securities, *provided* that such readjustment shall not apply to prior conversions of Series A Preferred, Series B Preferred or Series B-1 Preferred.

(vi) For the purpose of making any adjustment to the Conversion Price of the Series Preferred required under this Section 5(h), "***Additional Shares of Common Stock***" shall mean all shares of Common Stock issued by the Company or deemed to be issued pursuant to this Section 5(h) (including shares of Common Stock subsequently reacquired or retired by the Company), other than:

(A) shares of Common Stock issued upon conversion of the Series Preferred; provided that such Series Preferred was initially issued at a price no less than the Original Issuance Price applicable to such Series Preferred;

(B) shares of Common Stock or Convertible Securities issued after the Filing Date to employees, officers or directors of, or consultants or advisors to the Company or any subsidiary pursuant to stock purchase or stock option plans or other arrangements that are approved by the Board;

(C) shares of Common Stock issued pursuant to the exercise of Convertible Securities outstanding as of the Filing Date;

(D) shares of Common Stock or Convertible Securities issued for consideration other than cash pursuant to a merger, consolidation, acquisition, strategic alliance or similar business combination; *provided* that the issuance of shares therein has been approved by the Company's Board;

(E) shares of Common Stock or Convertible Securities issued pursuant to any equipment loan or leasing arrangement, real property leasing arrangement or debt financing from a bank or similar financial institution; *provided* that the issuance of shares therein has been approved by the Company's Board;

(F) shares of Common Stock or Convertible Securities issued to third-party service providers in exchange for or as partial consideration for services rendered to the Company; *provided* that the issuance of shares therein has been approved by the Company's Board; and

(G) any Common Stock or Convertible Securities issued in connection with strategic transactions involving the Company and other entities, including (i) joint ventures, collaborations, manufacturing, marketing or distribution arrangements or (ii) technology transfer or development arrangements; *provided* that the issuance of shares therein has been approved by the Company's Board.

References to Common Stock in the subsections of this clause (vi) above shall mean all shares of Common Stock issued by the Company or deemed to be issued pursuant to this Section 5(h). The "*Effective Price*" of Additional Shares of Common Stock shall mean the quotient determined by dividing the total number of Additional Shares of Common Stock issued or sold, or deemed to have been issued or sold by the Company under this Section 5(h), into the Aggregate Consideration received, or deemed to have been received by the Company for such issue under this Section 5(h), for such Additional Shares of Common Stock. In the event that the number of shares of Additional Shares of Common Stock or the Effective Price cannot be ascertained at the time of issuance (other than by virtue of antidilution provisions contained therein that have not yet been invoked), such Additional Shares of Common Stock shall be deemed issued immediately upon the occurrence of the first event that makes such number of shares or the Effective Price, as applicable, ascertainable.

(vii) In the event that the Company issues or sells, or is deemed to have issued or sold, Additional Shares of Common Stock in a Qualifying Dilutive Issuance (the "*First Dilutive Issuance*"), then in the event that the Company issues or sells, or is deemed to have issued or sold, Additional Shares of Common Stock in a Qualifying Dilutive Issuance

other than the First Dilutive Issuance as a part of the same transaction or series of related transactions as the First Dilutive Issuance (a "*Subsequent Dilutive Issuance*"), then and in each such case upon a Subsequent Dilutive Issuance the Series A Preferred Conversion Price, Series B Preferred Conversion Price or Series B-1 Preferred Conversion Price, as applicable, shall be reduced to the Series A Preferred Conversion Price, Series B Preferred Conversion Price or Series B-1 Preferred Conversion Price that would have been in effect had the First Dilutive Issuance and each Subsequent Dilutive Issuance all occurred on the closing date of the First Dilutive Issuance. Qualifying Dilutive Issuances occurring within six months of each other shall be deemed to be part of the same transaction for the purposes of this subsection (vii).

(i) **Certificate of Adjustment.** In each case of an adjustment or readjustment of the Conversion Price for any Series Preferred or the number of shares of Common Stock or other securities issuable upon conversion of any Series Preferred, if such Series Preferred is then convertible pursuant to this Section 5, the Company, at its expense, shall compute such adjustment or readjustment in accordance with the provisions hereof and shall, upon request, prepare a certificate showing such adjustment or readjustment, and shall mail such certificate, by first class mail, postage prepaid, to each registered holder of such Series Preferred so requesting at the holder's address as shown in the Company's books. The certificate shall set forth such adjustment or readjustment, showing in detail the facts upon which such adjustment or readjustment is based, including a statement of (i) the consideration received or deemed to be received by the Company for any Additional Shares of Common Stock issued or sold or deemed to have been issued or sold, (ii) the Conversion Price at the time in effect for such Series Preferred, (iii) the number of Additional Shares of Common Stock and (iv) the type and amount, if any, of other property which at the time would be received upon conversion of such Series Preferred. Failure to request or provide such notice shall have no effect on any such adjustment.

(j) **Notices of Record Date.** Upon (i) any taking by the Company 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 or other distribution, or (ii) any Acquisition (as defined in Section 4) or other capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company, any merger or consolidation of the Company with or into any other corporation, or any Asset Transfer (as defined in Section 4), or any voluntary or involuntary dissolution, liquidation or winding up of the Company, the Company shall mail to each holder of Series Preferred at least ten (10) days prior to (x) the record date, if any, specified therein; or (y) if no record date is specified, the date upon which such action is to take effect (or, in either case, such shorter period approved by the holders of at least sixty percent (60%) of the outstanding Series Preferred) a notice specifying (A) the date on which any such record is to be taken for the purpose of such dividend or distribution and a description of such dividend or distribution, (B) the date on which any such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up is expected to become effective, and (C) the date, if any, that is to be fixed as to when the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock (or other securities) for securities or other property deliverable upon such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up.

(k) Automatic Conversion.

(i) Each share of Series Preferred shall automatically be converted into shares of Common Stock, based on the then-effective Conversion Price for such Series Preferred, (A) at any time upon the affirmative election of the holders of at least sixty percent (60%) of the outstanding shares of the Series Preferred, or (B) immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Company in which (i) the per share price is at least \$3.60 (as adjusted for stock splits, dividends, recapitalizations and the like after the Filing Date), and (ii) the gross cash proceeds to the Company (before underwriting discounts, commissions and fees) are at least \$30,000,000. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 5(d).

(ii) Upon the occurrence of either of the events specified in Section 5(k)(i) above, the outstanding shares of Series Preferred shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; *provided, however*, that the Company shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such conversion unless the certificates evidencing such shares of Series Preferred are either delivered to the Company or its transfer agent as provided below, or the holder notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company to indemnify the Company from any loss incurred by it in connection with such certificates. Upon the occurrence of such automatic conversion of the Series Preferred, the holders of Series Preferred shall surrender the certificates representing such shares at the office of the Company or any transfer agent for the 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 or certificates for the number of shares of Common Stock into which the shares of Series Preferred surrendered were convertible on the date on which such automatic conversion occurred, and any declared and unpaid dividends shall be paid in accordance with the provisions of Section 5(d).

(l) **Fractional Shares.** No fractional shares of Common Stock shall be issued upon conversion of Series Preferred. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series Preferred by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of any fractional share, the Company shall, in lieu of issuing any fractional share, pay cash equal to the product of such fraction multiplied by the fair market value of one share of Common Stock (as determined by the Board) on the date of conversion.

(m) **Reservation of Stock Issuable Upon Conversion.** The Company 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 the Series Preferred, 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 the Series Preferred. 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 Company will 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 purpose.

(n) **Notices.** Any notice required by the provisions of this Section 5 shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with verification of receipt. All notices shall be addressed to each holder of record at the address of such holder appearing on the books of the Company.

(o) **Payment of Taxes.** The Company will pay all taxes (other than taxes based upon income) and other governmental charges that may be imposed with respect to the issue or delivery of shares of Common Stock upon conversion of shares of Series Preferred, excluding any tax or other charge imposed in connection with any transfer involved in the issue and delivery of shares of Common Stock in a name other than that in which the shares of Series Preferred so converted were registered.

6. NO REISSUANCE OF SERIES PREFERRED.

No shares or shares of Series Preferred acquired by the Company by reason of redemption, purchase, conversion or otherwise shall be reissued.

V.

A. The liability of the directors of the Company for monetary damages shall be eliminated to the fullest extent under applicable law.

B. The Company is authorized to provide indemnification of agents (as defined in Section 317 of the CGCL) for breach of duty to the Company and its stockholders through bylaw provisions or through agreements with the agents, or through stockholder resolutions, or otherwise, in excess of the indemnification otherwise permitted by Section 317 of the CGCL, subject, at any time or times that the Company is subject to Section 2115(b) of the CGCL, to the limits on such excess indemnification set forth in Section 204 of the CGCL.

C. Any repeal or modification of this Article V shall only be prospective and shall not affect the rights under this Article V in effect at the time of the alleged occurrence of any action or omission to act giving rise to liability.

D. In the event that a member of the Board of Directors of the Company who is also a partner or employee of an entity that is a holder of Preferred Stock and that is in the business of investing and reinvesting in other entities, or an employee of an entity that manages such an entity (each, a "*Fund*") acquires knowledge of a potential transaction or other matter in such individual's capacity as a partner or employee of the Fund or the manager or general partner of

the Fund (and other than directly in connection with such individual's service as a member of the Board of Directors of the Company) and that may be an opportunity of interest for both the Company and such Fund (a "*Corporate Opportunity*"), then the Company (i) renounces any expectancy that such director or Fund offer an opportunity to participate in such Corporate Opportunity to the Company and (ii) to the fullest extent permitted by law, waives any claim that such opportunity constituted a Corporate Opportunity that should have been presented by such director or Fund to the Company or any of its affiliates; provided, however, that such director acts in good faith.

VI.

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

A. The management of the business and the conduct of the affairs of the Company shall be vested in its Board. The number of directors which shall constitute the whole Board shall be fixed by the Board in the manner provided in the Bylaws, subject to any restrictions which may be set forth in this Certificate of Incorporation.

B. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the Company. The stockholders shall also have the power to adopt, amend or repeal the Bylaws of the Company; provided however, that, in addition to any vote of the holders of any class or series of stock of the Company required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of the capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt, amend or repeal any provision of the Bylaws of the Company.

C. The directors of the Company need not be elected by written ballot unless the Bylaws so provide.

* * * *

FOUR: This Amended and Restated Certificate of Incorporation has been duly approved by the Board of Directors of the Company.

FIVE: This Amended and Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of said corporation in accordance with Section 228 of the DGCL. This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 242 and 245 of the DGCL by the stockholders of the Company.

IN WITNESS WHEREOF, AMIRA PHARMACEUTICALS, INC. has caused this Amended and Restated Certificate of Incorporation to be signed by its Chief Financial Officer this 15th day of February 2007.

AMIRA PHARMACEUTICALS, INC.

/s/ Walter Tendler

Walter Tendler
Chief Financial Officer