
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

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

January 21, 2011

Date of Report (Date of earliest event reported)

PRO-PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in Charter)

NEVADA
**(State or Other Jurisdiction
of Incorporation)**

000-32877
**(Commission
File Number)**

04-3562325
**(IRS Employer
Identification No.)**

**7 WELLS AVENUE
NEWTON, MASSACHUSETTS
02459**
(Address of Principal Executive Offices) (Zip Code)

(617) 559-0033
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
-
-

Item 1.01. Entry into a Material Definitive Agreement

On January 21, 2011, Pro-Pharmaceuticals, Inc. (the “Company”) entered into an agreement (the “Agreement”) with 10X Fund, L.P., a Delaware limited partnership (“10X Fund”) which is the holder of all of the issued and outstanding shares of the Company’s Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock (collectively, the “Series B Preferred Stock”) and all Class A-1 Warrants (the “Class A-1 Warrants”), Class A-2 Warrants (the “Class A-2 Warrants”) and Class B Warrants (the “Class B Warrants”) issued in connection with the Series B Preferred Stock. The obligation of the Company to amend the terms of these securities was subject to a representation of 10X Fund contained in the Agreement that its partners had amended its partnership agreement so as to bar the limited partners from withdrawals of Series B Preferred Stock until May 12, 2016, provided that 10X Fund had implemented a quarterly liquidity program in which the limited partners are entitled to participate in sales of Company common stock (“Common Stock”) owned by 10X Fund.

Amendments to the Certificate of Designation of Series B Preferred Stock

Pursuant to the Agreement, the Company amended and restated the Certificate of Designation of Preferences, Rights and Limitations for the Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock, as previously amended (the “Certificate of Designation”), to (i) delete Section 5(c) (entitled “Mandatory Conversion”) in order to remove the Company’s right to compel conversion of the Series B Preferred Stock to shares of its Common Stock, (ii) amend the definitions in Section 1 (entitled “Definitions”) of the terms “Series B-1 Redemption Date” and the “Series B-2 Redemption Date” in order to extend such redemption dates to be the earlier of February 12, 2019, or the date of a promissory note issued to David Platt, Ph.D. pursuant to a separation agreement between him and the Company, (iii) amend Section 3 (entitled “Dividends”) such that dividends are payable in cash or shares of Common Stock valued at 100% of the volume weighted average price of the Common Stock for the 20 consecutive trading days prior to the dividend payment date on and after September 30, 2011, and (iv) insert new Section 5(d) (entitled “Automatic Conversion Upon Transfer”) to require that any request for transfer of shares of Series B Preferred Stock to another holder shall result in an automatic conversion to shares of Common Stock.

The foregoing description of the amended and restated Certificate of Designation is not complete and is qualified in its entirety by reference to the full text of the Amended and Restated Certificate of Designation, a copy of which is filed herewith as Exhibit 3.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Amendments to Class A-1 Warrants, Class A-2 Warrants and Class B Warrants

Pursuant to the Agreement, the Class A-1 Warrants and Class A-2 Warrants are amended to extend the termination date of these warrants from thirty to ninety days after the date on which the Company issues a termination notice based on the then trading price of the Common Stock having triggered the mandatory exercise condition for the warrants. Pursuant to the Agreement, the Class B Warrants are amended such that one-half of these warrants may be exercised on a “cashless” basis and shall be re-named the Class B-1 Warrants.

The foregoing description of the Class A-1 Warrants, Class A-2 Warrants and Class B-1 Warrants is not complete and is qualified in its entirety by reference to the full text of the forms of the Class A-1 Warrants, Class A-2 Warrants and Class B-1 Warrants, a copy of each of which is filed herewith as Exhibit 4.1, Exhibit 4.2 and Exhibit 4.3, respectively, to this Current Report on Form 8-K and is incorporated herein by reference. The form of the Class B Warrants was filed as Exhibit 4.3 to the Form

The foregoing description of the Agreement is not complete and is qualified in its entirety by reference to the full text of the Agreement, a copy of which is filed herewith as Exhibit 10.1 and is incorporated herein by reference.

Item 5.03. Amendments to Certificate of Incorporation or Bylaws; Change in Fiscal Year.

On January 26, 2011, the Company filed with the Secretary of State of the State of Nevada the Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series B-1 and Series B-2 Convertible Preferred Stock. A copy of the Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock is filed herewith as Exhibit 3.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

- (a) *Financial Statements of Businesses Acquired.*
Not applicable.
- (b) *Pro Forma Financial Information.*
Not applicable.
- (c) *Shell Company Transactions.*
Not applicable.
- (d) *Exhibits.*

| <u>Exhibit No.</u> | <u>Description</u> |
|--------------------|--|
| 3.1 | Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock. |
| 4.1 | Form of Class A-1 Common Stock Purchase Warrant. |
| 4.2 | Form of Class A-2 Common Stock Purchase Warrant. |
| 4.3 | Form of Class B-1 Common Stock Purchase Warrant. |
| 10.1 | Agreement dated January 21, 2011 between the Company and 10X Fund. |

SIGNATURES

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

PRO-PHARMACEUTICALS, INC.

By: _____ /s/ ANTHONY SQUEGLIA

Name: **Anthony Squeglia**

Title: **Chief Financial Officer**

Date: January 27, 2011

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description</u> |
|------------------------|--|
| 3.1 | Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock. |
| 4.1 | Form of Class A-1 Common Stock Purchase Warrant. |
| 4.2 | Form of Class A-2 Common Stock Purchase Warrant. |
| 4.3 | Form of Class B-1 Common Stock Purchase Warrant. |
| 10.1 | Agreement dated January 21, 2011 between the Company and 10X Fund. |

PRO-PHARMACEUTICALS, INC.
AMENDED AND RESTATED
CERTIFICATE OF DESIGNATION OF PREFERENCES,
RIGHTS AND LIMITATIONS
OF
SERIES B-1 CONVERTIBLE PREFERRED STOCK
AND
SERIES B-2 CONVERTIBLE PREFERRED STOCK
PURSUANT TO SECTION 78.56 OF THE
NEVADA GENERAL CORPORATION LAW

The undersigned, Maureen Foley, does hereby certify that:

1. She is the Chief Operating Officer and Corporate Secretary of Pro-Pharmaceuticals, Inc., a Nevada corporation (the "Corporation").
2. The Corporation is authorized to issue 20,000,000 shares of undesignated stock, par value \$0.01 per share, of which 900,000 have been designated for issuance as Series B-1 Convertible Preferred Stock, and 2,100,000 have been designated for issuance as Series B-2 Convertible Preferred Stock (collectively, the "Series B Preferred Stock").
3. On January 14, 2011, the Board of Directors of the Corporation voted to approve, subject to reaching an agreement with 10X Fund, L.P. ("10X Fund"), the sole holder of the issued and outstanding shares of Series B Preferred Stock (the "Agreement"), certain amendments to the Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock (the "Certificate of Designation"), and to file an amended and restated Certificate of Designation, which incorporates the amendments approved on January 14, 2011, and prior amendments thereto.
4. The Corporation and 10X Fund entered into the Agreement on January 21, 2011.
5. As of January 21, 2011, there were 900,000 shares of Series B-1 Convertible Preferred Stock outstanding, all of which voted to approve the following amendments, and 2,100,000 shares of Series B-2 Convertible Preferred Stock outstanding, all of which voted to approve the following amendments.
6. There is no class or series of stock which is senior to the Series B Preferred Stock as to the payment of distributions upon dissolution of the Corporation, and therefore the approval of any other class or series of stock of the Corporation to the amendments to the Certificate of Designation is not required pursuant to NRS 78.1955(3).

7. The Certificate of Designation is hereby amended and restated in the following manner:

TERMS OF SERIES B-1 AND B-2 CONVERTIBLE PREFERRED STOCK

Section 1. Definitions. Capitalized terms used and not otherwise defined herein that are defined in the Purchase Agreement shall have the meanings given such terms in the Purchase Agreement. For the purposes hereof, the following terms shall have the following meanings:

“Commission” means the Securities and Exchange Commission.

“Common Stock” means the Corporation’s common stock, par value \$0.001 per share, and stock of any other class of securities into which such securities may hereafter have been reclassified or changed into.

“Common Stock Equivalents” means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Conversion Amount” means the sum of the Stated Value plus all accrued but unpaid dividends on the Preferred Stock as of the Conversion Date.

“Conversion Date” shall have the meaning set forth in Section 5(a).

“Conversion Price” shall have the meaning set forth in Section 5(b).

“Conversion Shares” means, collectively, the shares of Common Stock into which the shares of Preferred Stock are convertible in accordance with the terms hereof.

“Dividend Shares” means, collectively, the shares of Common Stock which the Corporation may issue to a Holder in payment of dividends due on the Preferred Stock from time to time in accordance with the terms hereof.

“Dividend Payment Date” shall have the meaning set forth in Section 3(a).

“Effective Date” means the date that the Registration Statement is declared effective by the Commission.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Exempt Issuance” means the issuance of (a) shares of Common Stock or options to employees, officers, directors or other permitted grantees of the Corporation pursuant to any stock or option plan duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, (b) securities upon the exercise or

exchange of or conversion of any Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise, exchange or conversion price of such securities, (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Corporation, provided that any such issuance shall only be to a Person which is, itself or through its subsidiaries, an operating company in a business compatible with the business objectives of the Corporation and in which the Corporation receives benefits in addition to the investment of funds, but shall not include a transaction in which the Corporation is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, and (d) securities pursuant to written contractual obligations entered into prior to the Initial Closing Date which have been approved in writing by the Holder.

“Final Purchase Date” means May 25, 2010.

“Holder” means a holder of Preferred Stock.

“Indebtedness” means (a) any liabilities for borrowed money or amounts owed in excess of \$100,000 (other than trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Corporation’s balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of \$50,000 due under leases required to be capitalized in accordance with GAAP.

“Initial Redemption Date” shall mean the Series B-1 Redemption Date or the Series B-2 Redemption Date, as applicable.

“Liens” means a lien, charge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

“Notice of Conversion” shall have the meaning given such term in Section 5(a).

“Original Issue Date” shall mean the date of the first issuance of each issuance of shares of the Preferred Stock regardless of the number of transfers of any particular shares of Preferred Stock and regardless of the number of certificates which may be issued to evidence such Preferred Stock.

“Permitted Indebtedness” means the Indebtedness existing on the Initial Closing Date and approved in writing by the Holder.

“Permitted Lien” means the individual and collective reference to the following: (a) Liens for taxes, assessments and other governmental charges or levies not yet due or Liens for taxes, assessments and other governmental charges or levies being contested in good faith and by appropriate proceedings for which adequate reserves (in the good faith

judgment of the management of the Corporation) have been established in accordance with GAAP; (b) Liens imposed by law which were incurred in the ordinary course of the Corporation's business, such as carriers', warehousemen's and mechanics' Liens, statutory landlords' Liens, and other similar Liens arising in the ordinary course of the Corporation's business, and which (x) do not individually or in the aggregate materially detract from the value of such property or assets or materially impair the use thereof in the operation of the business of the Corporation and its consolidated subsidiaries or (y) are being contested in good faith by appropriate proceedings, which proceedings have the effect of preventing for the foreseeable future the forfeiture or sale of the property or asset subject to such Lien; (c) Liens incurred in connection with Permitted Indebtedness under clauses (b) thereunder, provided that such Liens are not secured by assets of the Corporation or its subsidiaries other than the assets so acquired or leased.

"Person" means a corporation, an association, a partnership, an organization, a business, an individual, a government or political subdivision thereof or a governmental agency.

"Preferred Stock" shall have the meaning given such term in Section 2.

"Purchase Agreement" means the Securities Purchase Agreement to which the Corporation and the original Holders are parties, as amended, modified or supplemented from time to time in accordance with its terms.

"Registration Rights Agreement" means the Registration Rights Agreement, dated as of the date of the Purchase Agreement, to which the Corporation and the original Holder are parties, as amended, modified or supplemented from time to time in accordance with its terms.

"Registration Statement" means a registration statement that meets the requirements of the Registration Rights Agreement and registers the resale of all Conversion Shares and Dividend Shares by the Holder, who shall be named as a "selling stockholder" thereunder, all as provided in the Registration Rights Agreement.

"Registration Statement Condition" means that a Registration Statement is effective, and not subject to any stop order or suspension, and all related blue sky filings have been made.

"Rights Offering" means a registered offering of up to \$20,000,000 of Common Stock by the Company to its Common Stockholders.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Series A Preferred Stock" means the Corporation's Series A 12% Convertible Preferred Stock, par value \$0.01 per share.

"Series B Directors" shall have the meaning given such term in Section 4.

“Series B-1 Redemption Date” means the earlier of (i) February 12, 2019, or (ii) the date of issuance of a promissory note to David Platt, Ph.D. pursuant to Paragraph 3(f) of the Separation Agreement between the Company and Dr. Platt dated February 9, 2009 as a result of the Company’s failure to pay the Milestone Amount (as defined therein) by the due date thereof.

“Series B-2 Redemption Date” means the earlier of (i) February 12, 2019, or (ii) the date of issuance of a promissory note to David Platt, Ph.D. pursuant to Paragraph 3(f) of the Separation Agreement between the Company and Dr. Platt dated February 9, 2009 as a result of the Company’s failure to pay the Milestone Amount (as defined therein) by the due date thereof.

“Share Delivery Date” shall have the meaning given such term in Section 5(c)(i).

“Stated Value” shall have the meaning given such term in Section 2.

“Subsidiary” means any entity in which the Corporation, directly or indirectly, beneficially owns 20% or more the voting securities thereof, including any entity formed or acquired after the date hereof.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any one of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq SmallCap Market, the American Stock Exchange, the New York Stock Exchange, the Nasdaq National Market, the OTC Bulletin Board, or “Pink Sheets.”

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg Financial L.P. (based on a Trading Day from 9:30 a.m. Eastern Time to 4:00 p.m. Eastern Time); (b) if the Common Stock is then listed or quoted on the OTC Bulletin Board, the average of the high and low price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board; or (c) if prices for the Common Stock are then reported in the “Pink Sheets” published by the Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported. As used in clause (a) of this definition, the term “Trading Market” excludes the OTC Bulletin Board and the Pink Sheets.

Section 2. Designation, Amount and Par Value. Two series of preferred stock shall be designated as the Corporation’s (a) Series B-1 Convertible Preferred Stock (the “Series B-1 Preferred”), of which the number of shares so designated shall be 900,000, and (b) Series B-2 Convertible Preferred Stock (the “Series B-2 Preferred,” and collectively with the Series B-1 Preferred, the “Preferred Stock”), of which the number of shares so designated shall be 2,100,000, for a total of 3,000,000 shares (the “Maximum Amount”). Each share of

Preferred Stock shall have a par value of \$0.01 per share and a stated value equal to \$2.00 (the "Stated Value"). Capitalized terms not otherwise defined herein shall have the meaning given such terms in Section 1 hereof.

Section 3. Dividends. Holders shall be entitled to receive, and the Corporation shall pay, cumulative dividends at the rate per share (as a percentage of the Stated Value per share) of 12% per annum (compounding monthly), payable in arrears quarterly on March 31, June 30, September 30 and December 31, beginning with June 30, 2009 (except that, if such date is not a Trading Day, the payment date shall be the next succeeding Trading Day) ("Dividend Payment Date"). With respect to any dividends payable on or before the Dividend Payment Date falling on June 30, 2011, the dividends shall be payable in duly authorized, fully paid and non-assessable shares of Common Stock valued at \$0.50 per share, but may be paid only if the Registration Statement Condition is true as of the Dividend Payment Date; provided that the Registration Statement Condition must only be true as of the Dividend Payment Date falling on December 31, 2010 or any subsequent Dividend Payment Date. With respect to any dividends payable on or after the Dividend Payment Date falling on September 30, 2011, the dividends shall be payable at the Corporation's option either in cash or, if the Registration Statement Condition is true as of the Dividend Payment Date and the issuance of shares of Common Stock for dividends would not trigger any anti-dilution provisions to which the Corporation is subject, in duly authorized, fully paid and non-assessable shares of Common Stock valued at 100% of the average of the VWAPs for the twenty (20) consecutive Trading Days ending on the Trading Day that is immediately prior to the Dividend Payment Date; provided that the Registration Statement Condition must only be true as of the Dividend Payment Date falling on December 31, 2010 or any subsequent Dividend Payment Date. Dividends on the Preferred Stock shall be calculated on the basis of a 360-day year, shall accrue daily commencing on the Original Issue Date, and shall be deemed to accrue from such date whether or not earned or declared and whether or not there are profits, surplus or other funds of the Corporation legally available for the payment of dividends. The Corporation covenants that all shares of Common Stock that are issued in satisfaction of dividends due on the Preferred Stock shall, upon issue, be duly and validly authorized, issued and fully paid, nonassessable and registered for public sale in accordance with the Registration Statement. Except as otherwise provided herein, if at any time the Corporation pays dividends partially in cash and partially in shares, then such payment shall be distributed ratably among the Holders based upon the number of shares of Preferred Stock held by each Holder. If the Corporation does not pay any dividend on the Preferred Stock, either in cash or in shares of Common Stock, on or prior to the Dividend Payment Date on which the dividend is due, then from that Dividend Payment Date until such time as all accrued but unpaid dividends due on the Preferred Stock have been paid in full, dividends shall accrue on the Preferred Stock at the rate of 15% per annum (compounding monthly).

Section 4. Voting Rights. Except as set forth specifically below, the holder of each share of the Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which such share of Preferred Stock would be convertible under the circumstances described in Section 5 hereof on the record date for the vote or consent of shareholders, and shall otherwise have voting rights and powers equal to the voting rights and powers of the Common Stock. The foregoing notwithstanding, with

respect to the election of directors, the holders of the Preferred Stock shall vote together as a separate class to elect two (2) members of the Board of Directors (the "Series B Directors"), and the Corporation shall take all reasonably necessary or desirable actions within its control (including, without limitation, calling special meetings of the Board of Directors, nominating such persons designated by the holders of the Preferred Stock as directors on the applicable proxy statements and recommending their election) to permit the holders of the Preferred Stock to appoint two additional (2) members of the Board of Directors (the "Series B Nominees"), who shall be subject to election by all shares of voting stock of the Corporation voting together as a single group, until such time as the Maximum Amount has been issued, after which the number of Series B Nominees shall be three (3), and shall remain three (3) until there are no longer any shares of Preferred Stock outstanding. The holders of Preferred Stock shall vote together with the holders of Common Stock and other voting capital stock of the Corporation to elect all other members of the Board of Directors. In the event the holders of Preferred Stock do not exercise their right to elect Series B Directors, such holders will be permitted to send a non-voting representative in an observer capacity to all meetings of the Board of Directors of the Corporation, with respect to which reasonable notice shall be provided to such holders, including notice of all written consents taken in lieu of a meeting of the Board of Directors of the Corporation prior to execution of any such consents. Each holder of a share of the Preferred Stock shall be entitled to receive the same prior notice of any shareholders' meeting as provided to the holders of Common Stock in accordance with the Bylaws of the Corporation, as well as prior notice of all shareholder actions to be taken by legally available means in lieu of meeting, and shall vote with holders of the Common Stock upon any matter submitted to a vote of shareholders, except those matters required by law, or by the terms hereof, to be submitted to a class vote of the holders of Preferred Stock.

Section 5. Conversion.

a) Conversions at Option of Holder. Each share of Preferred Stock shall be convertible into that number of shares of Common Stock determined by dividing the Conversion Amount of such share of Preferred Stock by the Conversion Price, at the option of the Holder, at any time and from time to time from and after the Original Issue Date. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as Annex A (a "Notice of Conversion"). Each Notice of Conversion shall specify the number of shares of Preferred Stock to be converted, the number of shares of Preferred Stock owned prior to the conversion at issue, the number of shares of Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the Holder delivers such Notice of Conversion to the Corporation by facsimile (the "Conversion Date"). If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be the date that such Notice of Conversion to the Corporation is deemed delivered hereunder. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. To effect conversions of shares of Preferred Stock, a Holder shall surrender the certificate(s) representing such shares of Preferred Stock to the Corporation promptly following the Conversion Date at issue. Shares of Preferred Stock converted into Common Stock or redeemed in accordance with the terms hereof shall be canceled and may not be reissued. If the number of shares of Preferred Stock represented by the Preferred

Stock certificate(s) submitted for conversion is greater than the number of shares of Preferred Stock being converted, then the Corporation shall, as soon as practicable and at the Corporation's expense, issue and deliver to the holder a new Preferred Stock certificate representing the number of shares of Preferred Stock not converted.

b) Conversion Price. The conversion price for the Preferred Stock shall equal \$0.50 (the "Conversion Price"), subject to adjustment as set forth in Section 6(a).

c) Mechanics of Conversion.

i. Delivery of Certificate Upon Conversion. Not later than five (5) Trading Days after each Conversion Date (the "Share Delivery Date"), the Corporation shall deliver or cause to be delivered to the Holder (A) a certificate or certificates which, after the Effective Date, shall be free of restrictive legends and trading restrictions (other than those required by the Purchase Agreement) representing the number of shares of Common Stock being acquired upon the conversion of shares of Preferred Stock, and (B) a bank check in the amount of accrued and unpaid dividends (if the Corporation has elected or is required to pay accrued dividends in cash). After the Effective Date, the Corporation shall, upon request of the Holder, deliver any certificate or certificates required to be delivered by the Corporation under this Section electronically through the Depository Trust Corporation or another established clearing corporation performing similar functions. If in the case of any Notice of Conversion such certificate or certificates are not delivered to or as directed by the applicable Holder by the fifth Trading Day after the Conversion Date, the Holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such certificate or certificates thereafter, to rescind such conversion, in which event the Corporation shall immediately return the certificates representing the shares of Preferred Stock tendered for conversion.

ii. Obligation Absolute; Partial Liquidated Damages. The Corporation's obligations to issue and deliver the Conversion Shares upon conversion of Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by the Holder or any other person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to the Holder in connection with the issuance of such Conversion Shares. In the event a Holder shall elect to convert any or all of its Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or any one associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, unless an injunction from a court, on notice, restraining and or enjoining conversion of all or part of this Preferred Stock shall have been sought and obtained. In the absence of an injunction precluding the same, the Corporation shall issue Conversion Shares upon a properly noticed conversion. Nothing herein shall limit a Holder's right to pursue actual damages for

the Corporation's failure to deliver certificates representing shares of Common Stock upon conversion within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief.

iii. Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock solely for the purpose of issuance upon conversion of the Preferred Stock and payment of dividends on the Preferred Stock, each as herein provided, free from preemptive rights or any other actual contingent purchase rights of persons other than the Holder (and the other Holders of the Preferred Stock), not less than such number of shares of the Common Stock as shall (subject to any additional requirements of the Corporation as to reservation of such shares set forth in the Purchase Agreement) be issuable (taking into account the adjustments and restrictions of Section 6) upon the conversion of all outstanding shares of Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly and validly authorized, issued and fully paid, nonassessable and, if the Registration Statement is then effective under the Securities Act, registered for public sale in accordance with such Registration Statement.

iv. Fractional Shares. Upon a conversion hereunder, the Corporation shall not be required to issue stock certificates representing fractions of shares of the Common Stock, but may, if otherwise permitted, make a cash payment in respect of any final fraction of a share based on the VWAP as of the Conversion Date. If the Corporation elects not, or is unable, to make such a cash payment, the Holder shall be entitled to receive, in lieu of the final fraction of a share, one whole share of Common Stock.

v. Transfer Taxes. The issuance of certificates for shares of the Common Stock on conversion of Preferred Stock shall be made without charge to the Holder hereof for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such certificate, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate upon conversion in a name other than that of the Holder of such shares of Preferred Stock so converted and the Corporation shall not be required to issue or deliver such certificates unless or until the person or persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid.

d) Automatic Conversion Upon Transfer. In the event the original Holder of the Preferred Stock transfers any shares of Preferred Stock to a third party for any reason, the shares of Preferred Stock presented for transfer will automatically be converted into shares of Common Stock on the terms set forth in Sections 5(a), (b) and (c) herein. A request made to the Corporation to transfer shares of Preferred Stock to a third party shall be deemed a Notice of Conversion with respect to those shares, and the Conversion Date shall be deemed the date the request for transfer is received by the Corporation.

Section 6. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while this Preferred Stock is outstanding: (A) pays a stock dividend or otherwise make a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation pursuant to this Preferred Stock, the Corporation's Series A 12% Convertible Preferred Stock or the Corporation's Series C Super Dividend Convertible Preferred Stock), (B) subdivides outstanding shares of Common Stock into a larger number of shares, (C) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (D) issues by reclassification of shares of the Common Stock any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to this Section 6(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Calculations. All calculations under this Section 6 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 6, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

c) Notice to Holders. Whenever the Conversion Price is adjusted pursuant to any of this Section 6, the Corporation shall promptly mail to each Holder a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

Section 7. Redemption. (a) The Corporation shall at any time, upon the receipt of written notice or notices delivered to the Corporation by any Holders of Preferred Stock on or after the Initial Redemption Date for such shares of Preferred Stock, redeem part or all of the then outstanding shares of Preferred Stock held by such Holders, as specified in such notice or notices, by paying in cash to the Holders thereof in respect of each such share the Redemption Price (defined below), within thirty (30) Trading Days after receipt of such written notice (the "*Redemption Date*"). The price payable for each redeemed share of Preferred Stock (the "*Redemption Price*") shall be equal to the Conversion Amount on the Redemption Date.

(b) The Corporation may, any time on thirty (30) days prior written notice to the Holder, redeem all Preferred Stock which is outstanding for the Redemption Price, provided that the number of shares of Preferred Stock which is outstanding is less than 10% of the number of shares of Preferred Stock originally issued by the Final Purchase Date. Any such redemption by the Corporation shall be effective on the thirtieth (30th) day after notice of

redemption is sent by the Corporation to the Holder (a “*Redemption Date*”), and the Holder shall receive payment of the Redemption Price upon surrender of all shares of Preferred Stock called for redemption. After the Redemption Date, all shares of Preferred Stock shall no longer be considered issued and outstanding, and shall have no right to vote on any matter upon which shares would be entitled to vote if still issued and outstanding. Nothing shall prohibit the Holder from exercising any right to convert the Preferred Stock into Common Stock between the date notice of redemption is sent by the Corporation and the Redemption Date.

(c) On or before the date of a scheduled Redemption Date and in connection therewith, each holder of shares of Preferred Stock requesting redemption under Section 7(a) shall, as a condition to such redemption, surrender the certificate representing such shares to the Corporation and shall receive payment of the Redemption Price in cash on the Redemption Date. Unless otherwise provided herein, upon the surrender of any shares for redemption under this Section 7(c), the shares so redeemed shall no longer be issued and outstanding, and upon such payment shall have no right to vote on any matter upon which shares would be entitled to vote if still issued and outstanding. If less than all the shares represented by a surrendered certificate are redeemed, the Corporation shall issue a new certificate representing the unredeemed shares.

(d) The right to redemption established by this Section 7 in respect of Preferred Stock shall be deemed absolute and vested upon the occurrence of the conditions specified herein. In the event the Corporation shall fail for any reason to pay the Redemption Price in cash on the Redemption Date, then the Holder(s) of the Preferred Stock requesting redemption shall, at the option of the Holder(s) on written notice to the Corporation, automatically convert into an obligation of the Corporation bearing interest at the rate of 15% per year and secured by a lien on all assets of the Corporation. The Corporation shall execute a promissory note and security agreement in the form attached hereto as Exhibit A, which shall be held in escrow and released to the Holder when and if the Holder certifies under oath that the Corporation has failed to pay the Redemption Price on the Redemption Date after proper demand on the Corporation. The Corporation agrees to execute any and all such documents that the Holder reasonably requests to perfect its security interest in any assets of the Corporation promptly after the date hereof. In the event the Corporation fails to pay more than one Holder the Redemption Price on a Redemption Date, and by virtue of such acts more than one Holder obtains a lien on the assets of the Corporation, the liens of all Holders shall rank *pari passu*.

Section 8. Liquidation Rights.

(a) In the event of any liquidation, dissolution or winding up of the Corporation, either voluntary or involuntary, the holders of the Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of Common Stock by reason of their ownership thereof, but *pari passu* with the holders of the Corporation’s Series A Preferred Stock, an amount per share equal to Conversion Amount of the Preferred Stock as of the record date for distribution, provided that the record date for the distribution may be no more than twenty (20) calendar days prior to the date of the distribution. If upon the occurrence of such event, the assets and funds

thus distributed among the holders of the Preferred Stock and the Series A Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts and the *pari passu* amounts due in respect of the Series A Preferred Stock, then the entire assets and funds of the Corporation legally available for distribution shall be distributed ratably among the holders of the Preferred Stock and the Series A Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

(b) Upon the completion of the distribution required by subparagraph (a) of this Section 8 and any other distribution that may be required with respect to any other series of preferred stock that may from time to time come into existence, the remaining assets of the Corporation available for distribution to shareholders shall be distributed among the holders of Common Stock.

(c) (i) For purposes of this Section 8, a liquidation, dissolution or winding up of the Corporation shall be deemed to be occasioned by, or to include, any of the following (a “*Sale, Merger, or Reorganization*”): (x) the merger or consolidation of the Corporation into or with another corporation or entity, reorganization or sale of the Corporation, or sale of capital stock by the Corporation, in which the shareholders of the Corporation immediately preceding such merger, consolidation, or reorganization (solely by virtue of their shares or other securities of the Corporation) shall own less than fifty percent (50%) of the voting securities of the surviving corporation; (y) the sale, transfer or lease (but not including a permitted transfer or lease by pledge or mortgage to a *bona fide* lender), whether in a single transaction or pursuant to a series of related transactions or plan, of 50% or more of the assets of the Corporation, based on the fair market value of the Corporation’s assets as mutually determined by the Corporation and the holders of at least a majority of the voting power of all then outstanding shares of the Preferred Stock, which assets shall include for these purposes fifty percent (50%) or more of the outstanding voting capital stock of any subsidiaries of the Corporation, the assets of which constitute all or substantially all of the assets of the Corporation and its subsidiaries taken as a whole; or (z) the sale, transfer or lease (but not including a permitted transfer or lease by pledge or mortgage to a *bona fide* lender), whether in a single transaction or pursuant to a series of related transactions, of all or substantially all of the assets of the subsidiaries of the Corporation, the assets of which constitute all or substantially all of the assets of the Corporation and such subsidiaries taken as a whole.

(ii) In any of such events, if the consideration received by the Corporation is other than cash, its value will be deemed its fair market value, as mutually determined by the Corporation and the holders of at least a majority of the voting power of all then outstanding shares of the Preferred Stock.

Section 9. Protective Provisions.

(a) Actions Requiring Majority Approval of Preferred Stock. In addition to any other rights provided by law, so long as any shares of Preferred Stock are then outstanding,

except where the vote or written consent of the holders of a greater number of shares is required by law or by another provision of the Articles of Incorporation, without first obtaining the affirmative vote or written consent of the holders of at least a majority of the total number of shares of the Preferred Stock outstanding, voting as a separate class, the Corporation shall not:

(i) change the size of the Corporation's Board of Directors from nine (9) members;

(ii) amend or repeal any provision of, or add any provision to, the Corporation's Articles of Incorporation or Bylaws or file any articles of amendment designating the preferences, limitations and relative rights of any series of preferred stock, or engage in any other action, that would alter or change the preferences, rights, privileges or powers of, or restrictions provided for the benefit of the Preferred Stock;

(iii) create or increase, or authorize the creation or increase of the authorized amount of any additional class or series of shares of stock, unless the same ranks junior to the Preferred Stock as to dividends, redemption and the distribution of assets on the liquidation, dissolution or winding up of the Corporation; or create or authorize any obligation or security convertible into shares of Common Stock, Preferred Stock or any other class or series of stock, whether voting or non-voting, unless an adequate number of shares have been reserved for the issuance of such shares of Common Stock, Preferred Stock or other class or series of stock upon such conversion; regardless of whether any such creation, authorization or increase shall be by means of amendment to the Articles of Incorporation, or by merger, consolidation or otherwise;

(iv) increase or decrease the authorized number of shares of the Preferred Stock;

(v) purchase, redeem or otherwise acquire for value any shares of any class of its capital stock or cause or permit any employee stock ownership plan, including any Employee Stock Ownership Plan as defined in § 4975(e)(7) of the Internal Revenue Code of 1986, as amended, to purchase shares of any class of its capital stock unless the outstanding shares of Preferred Stock, and any other shares of capital stock held by the holders of the Preferred Stock, shall have first been purchased, redeemed or otherwise acquired for value;

(vi) merge or consolidate into or with any other corporation or sell, assign, lease, pledge, encumber or otherwise dispose of all or substantially all of its assets or those of any subsidiary;

(vii) voluntarily or involuntarily liquidate, dissolve or wind up the Corporation or its business;

(viii) pay or declare dividends on any capital stock other than the Preferred Stock, unless the Preferred Stock share ratably in such dividend and all accrued dividends payable with respect to the Preferred Stock have been paid prior to the payment or declaration of such dividend;

(ix) acquire an equitable interest in, or the assets or business of any other entity in any form of transaction;

(x) create or commit the Corporation to enter into a joint venture, licensing agreement or exclusive marketing or other distribution agreement with respect to the Corporation's products, other than in the ordinary course of business;

(xi) permit the Corporation or any subsidiary of the Corporation to sell or issue any security of such subsidiary to any person or entity other than the Corporation;

(xii) other than Permitted Indebtedness, enter into, create, incur, assume, guarantee or suffer to exist any indebtedness for borrowed money of any kind, including but not limited to, a guarantee, on or with respect to any of its property or assets now owned or hereafter acquired or any interest therein or any income or profits therefrom;

(xiii) other than Permitted Liens, enter into, create, incur, assume or suffer to exist any Liens of any kind, on or with respect to any of its property or assets now owned or hereafter acquired or any interest therein or any income or profits therefrom;

(xiv) other than in connection with an Exempt Issuance or the Rights Offering, issue any Common Stock or Common Stock Equivalents;

(xv) increase the number of shares of Common Stock that may be issued pursuant to options, warrants or rights to employees, directors, officers, consultants or advisors above 1,500,000 (which number shall be appropriately adjusted for any stock splits, stock dividends, recapitalizations or similar events);

(xvi) amend the provisions of this Subsection 9(a).

(b) Notwithstanding anything to the contrary contained herein, nothing shall be deemed to limit the Company's ability to consummate the Rights Offering or require the consent of Series B Stockholders or Series B Directors prior to such consummation (other than as may be required by law); provided that nothing herein shall prohibit the Series B Directors from voting on the Rights Offering and its terms as a group with all other directors.

The Corporation agrees that its breach of this Section 9 will result in irreparable harm to the Holders, and therefore the Holder shall be entitled to obtain injunctive relief against the Corporation to preclude any such transaction that would be in violation of this Section, for which the Corporation expressly waives any requirement that the Holder post bond, which remedy shall be in addition to all remedies available to it at law or in equity.

Section 10. Events of Noncompliance.

(a) An "Event of Noncompliance" shall have occurred if:

(i) the Corporation breaches or otherwise fails to perform in any material respect any of the covenants or any of its obligations to the holders of the Preferred

Stock and fails to cure such breach or failure after any holder of Preferred Stock provides written notice of such breach or failure and the Corporation had had a reasonable opportunity (but not in any event more than 30 days) to cure such failure or breach; or

(ii) the Corporation or any subsidiary makes an assignment for the benefit of creditors or admits in writing its inability to pay its debts generally as they become due; or an order, judgment or decree is entered adjudicating the Corporation or any subsidiary bankrupt or insolvent; or any order for relief with respect to the Corporation or any subsidiary is entered under the Federal Bankruptcy Code; or the Corporation or any subsidiary petitions or applies to any tribunal for the appointment of a custodian, trustee, receiver or liquidator of the Corporation or any subsidiary or of any substantial part of the assets of the Corporation or any subsidiary, or commences any proceeding (other than a proceeding for the voluntary liquidation and dissolution of a subsidiary) relating to the Corporation or any subsidiary under any bankruptcy, reorganization, arrangement, insolvency, readjustment of debt, dissolution or liquidation law of any jurisdiction; or any such petition or application is filed, or any such proceeding is commenced, against the Corporation or any subsidiary and either (a) the Corporation or any such subsidiary by any act indicates its approval thereof, consent thereto or acquiescence therein or (b) such petition, application or proceeding is not dismissed within 60 days.

(b) If an Event of Noncompliance has occurred, and in the event the Series B Directors and Series B Nominees constitute less than a majority of the Corporation's Board of Directors, the number of directors constituting the Corporation's Board of Directors shall, at the request of the holders of a majority of the Preferred Stock then outstanding, be increased by such number which shall, together with the existing Series B Directors and Series B Nominees elected or nominated by the holders of the Preferred Stock, if any, constitute a minimum majority of the Board of Directors, and the holders of Preferred Stock shall have the special right, voting together as a single class (with each share being entitled to one vote) and to the exclusion of all other classes of the Corporation's capital stock, to elect individuals to fill such newly created directorships, to remove any individuals elected to such directorships and to fill any vacancies in such directorships; provided, however, that the special right of the holders of Preferred Stock to elect a majority of the members of the Board of Directors shall exist only after such Event of Noncompliance has continued and remained in effect for 30 days after notice to the Corporation by any holder of Preferred Stock. Such special right may be exercised at the special meeting called pursuant to this subparagraph (b), at any annual or other special meeting of shareholders and, to the extent and in the manner permitted by applicable law, pursuant to a written consent in lieu of a shareholders meeting. Such special right shall continue until such time as there is no longer any Event of Noncompliance in existence, at which time such special right shall terminate subject to revesting upon the occurrence and continuation of any Event of Noncompliance which gives rise to such special right hereunder.

At any time when such special right has vested in the holders of Preferred Stock, a proper officer of the Corporation shall, upon the written request of the holder(s) of at least 10% of the Preferred Stock then outstanding, addressed to the secretary of the Corporation, call a special meeting of the holders of Preferred Stock for the purpose of electing directors pursuant to this subparagraph. Such meeting shall be held at the earliest legally permissible

date at the principal office of the Corporation, or at such other place designated by the holders of at least 10% of the Preferred Stock then outstanding who first requested the meeting. If such meeting has not been called by a proper officer of the Corporation within 10 days after personal service of such written request upon the secretary of the Corporation or within 20 days after mailing the same to the secretary of the Corporation at its principal office, then the holders of at least 10% of the Preferred Stock then outstanding may designate in writing one of their number to call such meeting at the expense of the Corporation, and such meeting may be called by such person or entity so designated upon the notice required for annual meetings of shareholders and shall be held at the Corporation's principal office, or at such other place designated by such person. Any holder of Preferred Stock so designated shall be given access to the stock record books of the Corporation for the purpose of causing a meeting of shareholders to be called pursuant to this subparagraph.

At any meeting or at any adjournment thereof at which the holders of Preferred Stock have the special right to elect directors, the presence, in person or by proxy, of the holders of a majority of the Preferred Stock then outstanding shall be required to constitute a quorum for the election or removal of any director by the holders of the Preferred Stock exercising such special right. The vote of a majority of such quorum shall be required to elect or remove any such director. Any director so elected by the holders of Preferred Stock shall continue to serve as a director until the expiration of the lesser of (a) a period of six months following the date on which there is no longer any Event of Noncompliance in existence or (b) the remaining period of the full term for which such director has been elected. After the expiration of such six-month period or when the full term for which such director has been elected ceases (provided that the special right to elect directors has terminated), as the case may be, the number of directors constituting the Board of Directors of the Corporation shall decrease to such number as constituted the whole Board of Directors of the Corporation immediately prior to the occurrence of the Event or Events of Noncompliance giving rise to the special right to elect directors.

If any Event of Noncompliance exists, each holder of Preferred Stock shall also have any other rights which such holder is entitled to under any contract or agreement at any time and any other rights which such holder may have pursuant to applicable law.

Section 11. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holder hereunder, including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by facsimile, by e-mail or sent by a nationally recognized overnight courier service, addressed to the Corporation, at the address set forth above, facsimile number (617) 928-3450, Attn: Maureen Foley, e-mail address (Foley@pro-pharmaceuticals.com) or such other address, facsimile number or electronic mail address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, by e-mail, sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile telephone number, e-mail address or

address of such Holder appearing on the books of the Corporation, or if no such facsimile telephone number, e-mail address or address appears, at the principal place of business of the Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission (accompanied by confirmation of such transmission), if such notice or communication is delivered via facsimile or e-mail at the facsimile telephone number or e-mail address, as applicable, specified in this Section prior to 5:30 p.m. (New York City time), (ii) the date after the date of transmission (accompanied by confirmation of such transmission), if such notice or communication is delivered via facsimile or e-mail at the facsimile telephone number or e-mail address, as applicable, specified in this Section later than 5:30 p.m. (New York City time) on any date and earlier than 11:59 p.m. (New York City time) on such date, (iii) the first Trading Day following the date of mailing, if sent by nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

b) Lost or Mutilated Preferred Stock Certificate. If a Holder's Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Preferred Stock so mutilated, lost, stolen or destroyed but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership hereof, and indemnity, if requested, all reasonably satisfactory to the Corporation.

c) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of Nevada, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by any of the Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in Delaware. Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the such Delaware courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, or such Delaware courts are improper or inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Certificate of Designation or the transactions contemplated hereby. If either party shall commence an action or proceeding to enforce any provisions of this

Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

d) Waiver. Any waiver by the Corporation or the Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation. The failure of the Corporation or the Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation. Any waiver must be in writing.

e) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any person or circumstance, it shall nevertheless remain applicable to all other persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates applicable laws governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum permitted rate of interest.

f) Next Trading Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Trading Day, such payment shall be made on the next succeeding Trading Day.

g) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

h) Status of Converted Preferred Stock. Shares of Preferred Stock may only be issued pursuant to the Purchase Agreement. In case any shares of Preferred Stock shall be converted or reacquired by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series B-1 Convertible Preferred Stock or Series B-2 Convertible Preferred Stock.

IN WITNESS WHEREOF, the undersigned have executed this Amended and Restated Certificate of Designation this 26th day of January, 2011.

/S/ MAUREEN FOLEY

Name: Maureen Foley

Title: Chief Operating Officer and Corporate Secretary

ANNEX A

NOTICE OF CONVERSION

SERIES B-1 CONVERTIBLE PREFERRED STOCK

(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT SHARES OF PREFERRED STOCK)

The undersigned hereby elects to convert the number of shares of Series B-1 Convertible Preferred Stock indicated below, into shares of common stock, par value \$0.001 per share (the "Common Stock"), of Pro-Pharmaceuticals, Inc., a Nevada corporation (the "Corporation"), according to the conditions hereof, as of the date written below. If shares are to be issued in the name of a person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto and is delivering herewith such certificates and opinions as reasonably requested by the Corporation in accordance therewith. No fee will be charged to the Holder for any conversion, except for such transfer taxes, if any.

Conversion calculations:

Date to Effect Conversion:

Number of shares of Preferred Stock owned prior to Conversion:

Number of shares of Preferred Stock to be Converted:

Stated Value of shares of Preferred Stock to be Converted:

Number of shares of Common Stock to be Issued:

Applicable Conversion Price:

Number of shares of Preferred Stock subsequent to Conversion:

[HOLDER]

By: _____
Name:
Title:

NOTICE OF CONVERSION

SERIES B-2 CONVERTIBLE PREFERRED STOCK

(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT SHARES OF PREFERRED STOCK)

The undersigned hereby elects to convert the number of shares of Series B-2 Convertible Preferred Stock indicated below, into shares of common stock, par value \$0.001 per share (the "Common Stock"), of Pro-Pharmaceuticals, Inc., a Nevada corporation (the "Corporation"), according to the conditions hereof, as of the date written below. If shares are to be issued in the name of a person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto and is delivering herewith such certificates and opinions as reasonably requested by the Corporation in accordance therewith. No fee will be charged to the Holder for any conversion, except for such transfer taxes, if any.

Conversion calculations:

Date to Effect Conversion:

Number of shares of Preferred Stock owned prior to Conversion:

Number of shares of Preferred Stock to be Converted:

Stated Value of shares of Preferred Stock to be Converted:

Number of shares of Common Stock to be Issued:

Applicable Conversion Price:

Number of shares of Preferred Stock subsequent to Conversion:

[HOLDER]

By: _____
Name:
Title:

EXHIBIT A

PROMISSORY NOTE

FOR VALUE RECEIVED, Pro-Pharmaceuticals, Inc., a Nevada corporation (the "Maker"), promises to pay to the order of 10X Fund, L.P., a Delaware limited partnership (the "Holder"), or any subsequent Holder, the Redemption Amount that is outstanding from time to time with interest at the rate of 15% per annum, compounded monthly. All principal and accrued interest on this Note shall be payable on the Maturity Date (as hereinafter defined), and until the Maturity Date the Maker shall make quarterly payments of interest, which shall be due on the first day of each calendar quarter, commencing with the first day of the first calendar quarter occurring after the Effective Date of this Note. This Note shall mature one (1) year after the Effective Date of this Note.

The "Redemption Amount" shall mean any amount the Maker is required to pay the Holder upon any redemption of Preferred Stock by the due date for payment thereof pursuant to the Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock of the Maker, as filed with the Secretary of State of Nevada (the "Certificate of Designation").

"Series B-2 Redemption Date" shall have the meaning it is defined to have in the Certificate of Designation.

The "Effective Date" shall mean the date this Note is released from escrow to the Holder pursuant to Section 7(d) of the Certificate of Designation.

In the event any quarterly interest payment is not made within five (5) days of its due date, the Maker shall pay a late charge of five (5%) percent of the amount of the payment, provided that only one (1) such late charge may be collected on any particular payment however long that payment shall remain past due. Upon acceleration of the unpaid principal balance pursuant to this Note, all amounts due under the Note will bear interest at 18% per annum until paid in full. In the event of default on the part of the Maker hereunder, whether by a failure to make a quarterly interest payment or a failure to pay all principal and accrued interest hereunder after demand by the Holder, the unpaid principal shall bear interest at the rate of fifteen percent (18%) per annum from the date of such default until such default is cured.

Maker may prepay any principal amount of this Note in part or whole without premium or penalty upon thirty (30) days prior written notice to the Holder. Any prepayment shall be applied first to accrued interest and the balance to reduction of the outstanding principal. Any such prepayments shall not postpone the due date of any subsequent quarterly payments nor change the amount of such payments unless otherwise agreed to in writing by Holder.

Principal and interest payments are payable at 1099 Forest Lake Terrace, Niceville, FL 32578, or at such other address that Holder may designate.

If from any circumstances whatsoever fulfillment of any provision of this Note at the time performance of such provision shall be due shall involve transcending the limit prescribed by any applicable usury statute or any other applicable law, with regard to obligations of like character and amount, then, *ipso facto*, the obligation to be fulfilled shall be reduced to the limit of such validity, so that in no event shall any exaction be possible under this Note or under any other instrument evidencing or securing the indebtedness evidenced hereby, that is in excess of the current limit of such validity, but such obligation shall be fulfilled to the limit of such validity.

Presentment for payment, demand, protest and notice of demand, notice of dishonor and notice of nonpayment and all other notices are hereby waived by Maker. No failure to accelerate the debt evidenced hereby by reason of default hereunder, acceptance of a past due installment, or indulgences granted from time to time shall be construed (1) as a novation of this Note or as a restatement of the indebtedness evidenced hereby or as a waiver of such right of acceleration or of the right of the Holder thereafter to insist upon strict compliance with the terms of this Note, or (2) to prevent the exercise of such right of acceleration or any other right granted hereunder or by applicable law; and Maker hereby expressly waives the benefit of any statute or rule of law or equity now provided, or which may hereafter be provided, which would produce a result contrary to or in conflict with the foregoing. No extension of the time for the payment of this Note or any installment due hereunder, made by agreement with any person now or hereafter liable for the payment of this Note shall operate to release, discharge, modify, change or affect the original liability of the Maker under this Note, either in whole or in part, unless the Holder agrees otherwise in writing. This Note may not be changed orally, but only by an agreement in writing signed by the party against whom enforcement of any waiver, change, modification or discharge is sought.

Maker hereby waives and renounces for itself, its heirs, successors and assigns, all rights to the benefits of any statute of limitations, any moratorium, reinstatement, marshaling, forbearance, valuation, stay, extension, redemption, appraisal and exemption now provided, or which may hereafter be provided, by the Constitution and laws of the United States of America and of the State of Massachusetts or Delaware, against the enforcement and collection of the obligations evidenced by this Note except as described above.

This Note shall be convertible at the office of Maker, and at such other place or places, if any, as the Board of Directors of the Maker may designate, into fully paid and non-assessable shares (calculated as to each conversion to the nearest 1/100th of a share) of Common Stock of the Maker. The number of shares of Common Stock issuable upon conversion of this Note shall be equal to the amount of principle and interest for which a notice of conversion is sent divided by the Conversion Price in effect at the time of conversion determined as hereinafter provided. The price at which shares of Common Stock shall be delivered upon conversion (the "Conversion Price") shall be initially fifty cents (\$0.50) per share of Common Stock; provided, however, that such Conversion Price shall be subject to adjustment from time to time in certain instances as hereinafter provided. No payment or adjustment shall be made in respect of dividends previously declared and paid on the Common Stock upon conversion of part, or all, of this Note into shares of Common Stock. If the Maker elects to prepay part or all of this Note, such right of conversion shall cease and terminate, as to the portion designated for prepayment, at the close of business on the prepayment date, unless the Maker defaults in the prepayment.

No fractional shares of Common Stock will be issued, and instead the number of shares of Common Stock to be issued on conversion of this Note will, to the extent necessary, be rounded up to the nearest whole number of shares.

Before the Holder of this Note shall be entitled to convert the same into Common Stock, the Holder shall surrender this Note to the Maker, duly endorsed to the Maker or in blank, at the office of the Maker or at such other place or places, if any, as the Board of Directors of the Maker has designated, and shall give written notice to the Maker at said office or place that it elects to convert the same and shall state in writing therein the name or names (with addresses) in which it wishes the certificate or certificates for Common Stock to be issued. The Maker will, as soon as practicable thereafter, issue and deliver at said office or place to such Holder, or to its nominee or nominees, certificates for the number of full shares of Common Stock to which it shall be entitled as aforesaid. This Note shall be deemed to have been converted, as of the close of business, on the date of the surrender of the Note for conversion as provided above, and the person or persons entitled to receive the Common Stock issuable upon conversion shall be treated for all purposes as the record holder or holders of such Common Stock as of the close of business on such date. In the event part or all of this Note is presented for conversion, the Holder of this Note will be entitled to receive all interest on this Note which has accrued to the date of conversion on that portion of the Note which is converted, which interest will, at the Holder's election, be payable on the next regularly scheduled interest payment date on this Note or converted into shares of Common Stock.

The Conversion Price in effect at any time shall be subject to adjustment as follows:

(i) In case the Maker shall (A) pay a dividend in shares or Common Stock or Common Stock Equivalents (other than any shares of Common Stock issued by the Maker in satisfaction of dividends due on its Series A 12% Convertible Preferred Stock or its Series B-1 or B-2 Convertible Preferred Stock), (B) subdivide its outstanding shares of Common Stock, (C) combine its outstanding shares of Common Stock into a smaller number of shares, or (D) issue by reclassification of its Common Stock (including any such reclassification in connection with a consolidation or merger in which the Maker is the continuing corporation) any shares of its capital stock, the Conversion Price in effect at the time of the record date for such dividend or of the effective date of such subdivision, combination or reclassification shall be proportionately adjusted so that if this Note is surrendered for conversion after such time, the Holder shall be entitled to receive the kind and amount of shares of Common Stock which it would have owned or have been entitled to receive had this Note been converted immediately prior to such time. Such adjustment shall be made successively whenever any event listed above shall occur.

(ii) In case the Maker shall distribute to all holders of its Common Stock (including any such distribution made in connection with a consolidation or merger in which the Maker is the continuing corporation) evidences of its indebtedness or assets (excluding dividends or other distributions paid out of earned surplus), the Conversion Price shall be adjusted so that the same shall equal the price determined by multiplying the Conversion Price in effect immediately prior to the close of business on the date fixed for the determination of stockholders entitled to receive such distribution by a fraction of

which the numerator shall be the Current Market Price per share of the Common Stock on the date fixed for such determination less the fair market value (as determined by the Board of Directors of the Maker, whose determination shall be conclusive and described in a Board Resolution of the Maker filed with the Transfer Agent) of the portion of the assets or evidences of indebtedness so distributed applicable to one share of Common Stock and the denominator shall be such Current Market Price per share of the Common Stock on the date fixed for such determination, such adjustment to become effective immediately prior to the opening of business of the day following the date fixed for the determination of stockholders entitled to receive such distribution.

(iii) For the purpose of any computation under paragraph (ii) above, the "Current Market Price" on any date shall be deemed to be, for such date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market (other than the OTC Bulletin Board or Pink Sheets), the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg Financial L.P. (based on a Trading Day from 9:30 a.m. Eastern Time to 4:00 p.m. Eastern Time); (b) if the Common Stock is then listed or quoted on the OTC Bulletin Board, the average of the high and low price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board; (c) if the Common Stock is not then listed or quoted on a Trading Market (other than the Pink Sheets) and if prices for the Common Stock are then reported in the Pink Sheets published by the Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported; or (d) if the Common Stock is not then listed or quoted on a Trading Market, the book value of the Common Stock as determined from an unaudited balance sheet of the Maker prepared according to generally accepted accounting principles as of a date which is 90 days preceding the relevant date. A "Trading Market" means any one of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq SmallCap Market, the American Stock Exchange, the New York Stock Exchange, the Nasdaq National Market, the OTC Bulletin Board, or "Pink Sheets."

(i) All calculations required for any adjustment to the Conversion Price hereunder shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be.

(ii) In case of any consolidation or merger of the Maker with or into any other corporation (other than a consolidation or merger in which the Maker is the continuing corporation), or in case of any sale or transfer of all or substantially all of the assets of the Maker, the Holder of this Note shall after such consolidation, merger, sale or transfer have the right to convert this Note into the kind and amount of shares of stock and other securities and property which such holder would have been entitled to receive upon such consolidation, merger, sale or transfer if he had held the Common Stock issuable upon the conversion of this Note immediately prior to such consolidation, merger, sale or transfer.

(iii) In the event that at any time, as a result of an adjustment made pursuant to paragraph (i) above, the holder of this Note surrendered for conversion shall become entitled to receive any securities other than shares of Common Stock, thereafter the amount of such other securities so receivable upon conversion of this Note shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Common Stock contained in paragraphs (i) to (v), inclusive, above, and the provisions of this paragraph with respect to the Common Stock shall apply on like terms to any such other securities.

(iv) No adjustment in the Conversion Price shall be required unless such adjustment would require a change of at least 1% in such price; provided, however, that any adjustments which by reason of this paragraph (viii) are not required to be made shall be carried forward and taken into account in any subsequent adjustment.

Whenever the Conversion Price is adjustable as herein provided, the Maker shall notify the Holder of this Note of the change in the Conversion Price within 30 days of any such change.

The Maker will at all times reserve, keep available and be prepared to issue, free from any preemptive rights, out of its authorized but unissued Common Stock, solely for the purpose of effecting conversion of this Note, the full number of shares of Common Stock then issuable upon the conversion of all outstanding Notes. The Maker shall from time to time, in accordance with the laws of the State of Delaware, endeavor to amend its Articles of Incorporation to increase the authorized amount of its Common Stock if at any time the authorized amount of its Common Stock remaining unissued shall be not sufficient to permit the conversion of this Note and all other securities of the Maker which are convertible into Common Stock. The Maker shall, if any shares of Common Stock required to be reserved for issuance upon conversion of this Note pursuant to this paragraph require registration with or approval of any governmental authority under any Federal or state law before such shares may be issued upon such conversion, endeavor to cause such shares to be so registered or approved as expeditiously as possible.

The Maker will pay any and all transfer taxes that may be payable in respect of the issue or delivery of shares of Common Stock on conversion of this Note pursuant hereto. The Maker shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issue or transfer and delivery of shares of Common Stock in a name other than that in which this Note so converted was originally issued, and no such issue or delivery shall be made unless and until the person requesting such issue has paid to the Maker the amount of any such tax or has established to the satisfaction of the Maker that such tax has been paid.

In the event this Note is collected by or through an attorney or by the order of a court of competent jurisdiction, all cost of collection, including but not limited to court costs and reasonable attorneys' fees, shall be paid by Maker. This Note is to be construed and enforced according to the laws of the State of Delaware.

Witness

By: Anthony Squeglia
Its: Chief Financial Officer

SECURITY AGREEMENT

This Security Agreement is made and entered into this 10th day of February, 2009, by and between PRO-PHARMACEUTICALS, INC. (hereinafter referred to as "Borrower") and 10X FUND, L.P. (hereinafter referred to as "Lender") as follows:

FOR VALUE RECEIVED, and in order to secure payment of any and all indebtedness of the Borrower to the Lender, now existing or hereafter incurred, matured or unmatured, direct or contingent, including any extensions, renewals and substitutions thereof, the Borrower hereby grants to the Lender a security interest in, all of Borrower's furniture, fixtures, equipment, furnishings, leases and lease rights, supplies, inventory, accounts receivable, contract rights, general intangibles, patents, trade secrets, intellectual property of any and every kind, goods and tangible personal property of every kind and nature, including additions, replacements, accessions and proceeds now and hereafter owned and acquired (hereinafter referred to as "Collateral").

This Security Agreement secures the indebtedness of the Borrower as evidenced by that promissory note ("Promissory Note") given by Borrower to Lender of even date herewith in the Redemption Amount (as defined in the Promissory Note). This Security Agreement secures to Lender: (a) the payment of the Promissory Note and all renewals, extensions and modifications of the Promissory Note; (b) the payment of all other sums, with interest, advanced to protect the security of this Security Agreement including all expenditures for taxes, insurance and repairs and maintenance of the Collateral; (c) the performance of Borrower's covenants and agreements under this Security Agreement and the Promissory Note; and (d) any other indebtedness of the Borrower to the Lender, whether now existing or hereafter incurred, matured or unmatured, direct or contingent.

1. UCC FINANCING STATEMENT. A UCC Financing Statement covering the Collateral herein secured shall be filed for record with the appropriate office in Massachusetts, as well as any notices required by the United States Patent and Trademark Office.

2. PROMISSORY NOTE PAYMENTS. Borrower shall promptly pay when due the principal and interest on the debt evidenced by the Promissory Note and any late charges due under the Promissory Note. Unless applicable law provides otherwise, all payments received by Lender shall be applied first to interest due on the indebtedness, second to the principal due on the indebtedness, and third to any late charges outstanding under the Promissory Note.

3. LIENS. Borrower shall pay all taxes, assessments, charges, fines and impositions attributable to the Collateral that may attain priority over this Security Agreement, and all leasehold payment or ground rents, if any. Borrower shall pay these obligations on time directly to the person owed the payment. Borrower shall promptly furnish to Lender receipts evidencing the payments, if requested by Lender. Borrower shall promptly discharge any lien which may have priority over this Security Agreement. If Lender determines that any part of the Collateral is subject to a lien which may attain priority over this Security Agreement Lender may give Borrower a notice identifying the lien. Borrower shall satisfy the lien within ten (10) days of the giving of notice. The Borrower will defend the Collateral against all other claims or demands of all persons at any time claiming any

interest in the Collateral, when such claim is adverse to the rights of the Lender conveyed in this Agreement.

4. COMPLIANCE WITH LAWS. Borrower shall, at all times, fully comply with all local, State and Federal laws, regulations, statutes or ordinances relating to the use of the Collateral and the operation of Borrower's business. Any Hazardous Substance used by Borrower shall be stored, maintained, removed and disposed of in full compliance with all local, State and Federal (EPA/EPD) laws, regulations, statutes or ordinances. "Hazardous Substances" as used herein means and includes, without limitation, petroleum products, flammable explosives, radioactive materials, asbestos (or any material containing asbestos), polychlorinated biphenyls and any other hazardous, toxic, or dangerous waste, substances, or materials defined as such (or any similar term) for the purposes of any State or Federal laws.

5. TRANSFER OF COLLATERAL. The Borrower shall not, without written consent of the Lender, sell, contract to sell, lease, assign or dispose of any interest of any kind in the Collateral, except for the sale of the Collateral in the normal course of business, until this Security Agreement and all debts secured hereby have been fully paid and satisfied. If all or any part of the Collateral, or any interest in the Collateral, is sold or transferred, or if a beneficial interest in Borrower is sold or transferred, or if the Borrower's business is sold, assigned or transferred without Lender's prior written consent, Lender may, at its option, require immediate payment in full of all sums secured by this Security Agreement. Notwithstanding the foregoing, Borrower shall provide written notice by certified mail to the Lender of any sale, assignment or transfer of any interest in the Borrower's business or the Collateral for so long as there are any debts outstanding from Borrower to Lender.

6. CHANGES IN COLLATERAL. The Borrower will keep the Collateral separate and identifiable at the Borrower's business premises and will not remove the Collateral from said location without the Lender's written consent. The Borrower shall promptly notify Lender in writing of any proposed change in the location or ownership of the Borrower's business. The Borrower shall be allowed to improve or replace any portion of the Collateral with collateral of greater or equal value without prior consent of the Lender. In the event Borrower does replace any Collateral with collateral of greater or equal value, Borrower shall not be obligated to give Lender any of the proceeds from the prior held collateral.

7. INSURANCE. Borrower shall maintain at all times fire, liability and other casualty insurance and any other insurance required, including theft, to protect the Collateral and fully secure Borrower's obligation to Lender. The Lender shall be named as an additional insured and loss payee and shall be provided with a Certificate of Coverage. Such insurance coverage may be reduced by Borrower subsequent to the date of closing provided that said coverage is always at least equal to the amount of Borrower's debt to Lender at that time. Such insurance shall be obtained from companies registered to transact business in the State of Massachusetts and said policy shall be issued in the names of Lender and Borrower, as their respective interests may appear, and proof of coverage and copies of all related documents shall be delivered to Lender, upon Lender's request, but at least annually, until such time as all Borrower's obligations to Lender are satisfied.

In the event Borrower fails to maintain the coverage described above, Lender may, at Lender's option, obtain coverage to protect Lender's rights in the Collateral, and Borrower shall be required to pay to Lender the reasonable costs and expenses incurred by Lender in obtaining such coverage.

In the event of loss, Borrower shall give prompt notice to the insurance carrier and Lender. Lender may make proof of loss if not made promptly by Borrower. Unless Lender and Borrower otherwise agree in writing, insurance proceeds shall be applied to restoration or repair of the Collateral damaged, if the restoration or repair is economically feasible and Lender's security is not lessened. If the restoration or repair is not economically feasible or Lender's security would be lessened, the insurance proceeds shall be applied to the sums secured by this Security Agreement, whether or not then due, with any excess paid to Borrower. If Borrower abandons the Collateral, or does not answer within ten (10) days after notice from Lender that the insurance carrier has offered to settle the claim, then Lender may collect the insurance proceeds. Lender may use the proceeds to repair or restore the Collateral or to pay sums secured by this Agreement, whether or not then due. The ten (10) day period will begin when the notice is given. Unless Lender and Borrower otherwise agree in writing, any application of insurance proceeds to principal shall not extend or postpone the due date of any payments due under the Promissory Note or change the amount of the payments. If the Collateral is acquired by Lender, Borrower's right to any insurance policies and proceeds resulting from damage to the Collateral prior to the acquisition shall pass to Lender to the extent of the sums secured by this Security Agreement immediately prior to the acquisition.

8. **BUSINESS RECORDS.** The Borrower will at all times keep accurate and complete records of its business and upon default or threat of default, the Lender, or any of the Lender's agents, shall have the right to call at the Borrower's place of business during normal hours of business to inspect the books, records, journals, orders, receipts, correspondence and other data relating to its business and the Collateral or to any other transaction between the parties hereto.

9. **PROTECTION OF COLLATERAL.** The Borrower shall keep the Collateral in good working order and repair and shall not waste or destroy the Collateral or any part thereof. The Borrower shall not use the Collateral in violation of any statute or ordinance and the Lender or its agent shall have the right to examine and inspect the Collateral during normal business hours upon prior notice to Borrower specifying the reasonable cause for the inspection.

10. **PROTECTION OF LENDER'S RIGHTS IN THE COLLATERAL.** If Borrower fails to perform the covenants and agreements contained in this Security Agreement, or there is a legal proceeding that may significantly affect Lender's rights in the Collateral (such as a proceeding in bankruptcy, probate, for condemnation or forfeiture or to enforce laws or regulations), then Lender may do, and pay for, whatever is necessary to protect the value of the Collateral and Lender's rights in the Collateral. Lender's actions may include paying any sums secured by a lien that has priority over this Security Agreement, appearing in court, paying reasonable attorneys' fees and entering the location where the Collateral is to make repairs. Although Lender may take action under this paragraph, Lender does not have to do so. Any amounts disbursed by Lender under this paragraph shall become additional debt of Borrower secured by this Security Agreement. Unless Borrower and Lender agree to other terms of payment, these amounts shall bear interest from the date of disbursement at the Promissory Note rate and shall be payable, with interest, upon notice from Lender to Borrower requesting payment.

11. **DEFAULT.** Notwithstanding anything to the contrary herein, the Borrower shall be in default under this Security Agreement upon the occurrence of any of the following events or conditions:

- (a) Default in the payment or performance of any term under any Promissory Note, obligations, covenants, liabilities or any other indebtedness of the Borrower, referred to herein or secured hereby, specifically failure to pay when due any amount, principal or interest, payable on the loan made hereunder.
- (b) Any warranty, representation or statement made or furnished to the Lender by or on behalf of the Borrower proves to have been false in any material respect when made or furnished.
- (c) Sale, transfer or assignment of a majority interest in the Borrower without the prior written consent of the Lender.
- (d) Sale, transfer or assignment of substantially all of the assets of the Borrower without prior written consent of the Lender.
- (e) Any levy, seizure or attachment of the Collateral.
- (f) A change in the location of the Borrower's business without the prior written consent of the Lender, which consent shall not be unreasonably withheld.
- (g) Dissolution, termination of existence, insolvency, business failure, appointment of a receiver for any part of the Collateral, assignment for the benefit of creditors or the commencement of any proceeding under any bankruptcy or insolvency law by or against the Borrower or any guarantor or surety for the Borrower.
- (h) Default under the business premises lease.
- (i) Default under any obligation of Lender's that has been assumed by Borrower.
- (j) Failure to maintain adequate insurance as provided in paragraph 7.
- (k) Failure to pay all taxes as required by law.
- (l) Waste or destruction of the Collateral or any part thereof.
- (m) Any event of default hereunder shall also constitute a default under the terms of the Promissory Note.

12. **REMEDIES.** Upon the occurrence of any such event of default under this Agreement and prior to exercising the appropriate remedies, including, without limitation, the right of acceleration of the indebtedness, the Lender shall give notice of default to the Borrower. The notice shall specify: (1) the default; (2) the action required to cure the default; (3) a date not less than ten (10) days from the date the notice is given to Borrower by which the default must be cured; and (4) that failure to cure the default on or before the date specified in the notice may result in

acceleration of the sums secured by this Security Agreement and sale of the Collateral. If Borrower fails to cure any default prior to the expiration of the ten (10) day period, Lender may invoke any remedies permitted by this Security Agreement without further notice of demand on Borrower.

The Lender may take such action (without notice and without bond, in that Borrower herein expressly waives all rights thereto prior to foreclosure and seizure by Lender) as it deems advisable to protect and enforce its rights against the Borrower and in and to the Collateral, including, but not limited to, the following actions, each of which may be pursued concurrently or otherwise, at such time and in such order as the Lender may determine, in its sole discretion, without impairing or otherwise, affecting the other rights and remedies of the Lender under this Security Agreement or under any other agreement between the Lender and the Borrower:

- (a) Declare the Promissory Note to be forthwith due and payable, whereupon the same shall become and be immediately due and payable, both as to principal and interest, without presentment and demand, protest or other notice of any kind, all of which are hereby expressly waived, anything contained herein or in the Promissory Note to the contrary notwithstanding.
- (b) Receive and retain all the Collateral and proceeds and all other distributions of any kind upon any and all of the Collateral. Borrower agrees to deliver the Collateral to Lender, and the Lender may without legal process, enter the business premises and take possession of all Collateral and proceeds found therein, without being guilty of trespass, forcible entry or detainer.
- (c) Exercise any and all rights and remedies afforded the Lender, as a Lender, in possession of Collateral or otherwise, under any and all applicable provisions of law, all of which rights and remedies shall be cumulative, and not exclusive, to the extent permitted by law. All rights of the Lender hereunder shall inure to the benefit of Lender's successors and assigns and all obligations of the Borrower shall bind Borrower's successors and assigns.
- (d) Take such action as the Lender may elect with respect to the foreclosure, sale, assignment and delivery of the whole, or from time to time any part of, the Collateral, including, without limitation, sell, assign, and deliver the Collateral at any broker's board or at any private sale in a commercially reasonable manner, or at public auction, after advertisement of the time and place of the sale, for cash, for credit or for other property, for immediate or future delivery, and for such price or prices as the Lender shall determine, on commercially reasonable terms, and the Lender may bid for and purchase the whole or any part of the Collateral so sold free from any right or equity of redemption; to adjourn any such sale or cause the same to be adjourned from time to time to a subsequent time and place announced at the time and place fixed for the sale; to carry out any agreement to sell any item or items of Collateral in accordance with the terms of such agreement, notwithstanding the fact that after the Lender shall have entered into such an agreement, the Promissory Note may have been paid in full.
- (e) The proceeds received by the Lender from the disposition or sale of the Collateral shall be retained by the Lender as compensation for the use of the Collateral while in the Borrower's possession and not as penalty and shall be applied: (1) to the cost, expenses and

reasonable attorney's fees and expenses incurred by the Lender for the collection and for sale and delivery of the Collateral, and (2) to the outstanding principal and interest on the Promissory Note in such order as the Lender may elect. If any proceeds remain after such application, such remainder shall be paid to the Borrower. Without such sale the fair market value of the property at the time of repossession may be credited upon the amount unpaid by Borrower. In any event, the Borrower agrees to pay the balance forthwith as liquidated damages for the breach of this Agreement.

(f) Notice of any sale at public auction pursuant to paragraph (d) shall be sufficient for all purposes if a written notice of any such sale is given to the Borrower by mailing a copy of a notice of such sale (naming the place, date and time thereof and a brief statement of the nature of the Collateral to be sold) to the Borrower not less than five (5) days prior to any such sale and if a similar notice is published at least once, in a newspaper of general circulation published in Boston, Massachusetts not less than three (3) days nor more than ten (10) days prior to such sale. The Borrower agrees that any disposition of Collateral made pursuant to the foregoing shall be deemed to have been made in a commercially reasonable manner, but the foregoing provision shall not be deemed to limit the right of the Lender to dispose of any item of Collateral in any other manner provided in Article 9 of the Uniform Commercial Code.

13. BORROWER'S CLAIMS AGAINST REPOSSESSED COLLATERAL. If the Lender repossesses the Collateral, the Borrower agrees to send notice by registered mail to the Lender within twenty-four (24) hours after repossession if the Borrower claims any articles not included herein or used as security hereby were contained in the Collateral at the time of repossession. The Borrower agrees that failure to do so shall be a waiver and bar to any subsequent claim therefore. The Borrower hereby waives the right to remove any legal action, brought by the holder hereof, from the court originally acquiring jurisdiction.

14. ATTORNEY'S FEES. In the event Lender is required to take legal action to enforce any of the provisions of this Security Agreement, then in addition to such relief as shall be granted Lender, Lender shall also be entitled to reasonable attorney's fees.

15. NOTICES. Any notice to Borrower provided for in this Security Agreement shall be given by delivering it or mailing it by first class mail unless applicable law requires use of another method. The notice shall be directed to the address of the Collateral or any other address Borrower designates by notice to Lender. Any notice to Lender shall be given by first class mail to Lender's address c/o Chief Executive Officer, 1099 Forest Lake Terrace, Niceville, FL 32578, or any other address Lender designates by notice to Borrower. Any notice provided for in this Security Agreement shall be deemed to have been given to Borrower or Lender when given as provided in this paragraph.

16. TIME OF PERFORMANCE AND WAIVER. In performing any act under this Security Agreement and the Promissory Note secured hereby, time shall be of the essence. The Lender's extension of the time for payment for any indebtedness or the acceptance of only partial or delinquent payments, or the failure of the Lender to enforce strict performance on the part of the Borrower of any covenant, promise or condition herein contained or contained in any other document evidencing the indebtedness owed the Lender by the Borrower shall not operate as a

waiver of the right of the Lender thereafter to require that the terms hereof or the terms of such other documents be strictly performed.

17. RIGHTS OF LENDER. The rights and remedies herein conferred upon the Lender shall be cumulative and not alternative and shall be in addition to and not substitution of the rights and remedies conferred by the Uniform Commercial Code (UCC) of the State of Massachusetts. All rights of the Lender hereunder shall inure to the benefit of its successors and assigns and all obligations of the Borrower shall bind its successors and assigns.

Until all sums secured by this Security Agreement have been paid in full, Borrower, on demand of Lender, shall (or cause the same to be done) execute, acknowledge and deliver all such further instruments and papers, take all such further action as may be requested by Lender to effectuate the purposes hereof, or to provide the rights and remedies of Lender contemplated hereby, or to avoid any breach hereof.

18. GOVERNING LAW; SEVERABILITY. This Security Agreement shall be governed by the law of the State of Massachusetts. In the event that any provision or clause of this Security Agreement or the Promissory Note conflicts with applicable law, such conflict shall not affect other provisions of this Security Agreement or the Promissory Note which can be given effect without the conflicting provision. To this end the provisions of this Security Agreement and the Promissory Note are declared to be severable.

19. CONSTRUCTION AND SURVIVAL. This Agreement is the complete agreement between the parties and any contracts previously executed between the parties, along with such other written or verbal representations or warranties as may have been made by either party, their broker, agents, or assigns, are merged into this Agreement and are extinguished, except as set forth herein. The provisions and warranties contained in this Agreement shall survive the closing.

20. BINDING EFFECT. This Agreement shall inure to the benefit of and be binding upon the Lender and the Borrower and their respective heirs, executors, administrators, successors and assigns and legal representatives, and shall survive the closing of this sale.

21. NUMBER AND GENDER. Whenever required by the context, the singular number shall include the plural and the masculine gender shall include the feminine and the neuter.

22. HEADINGS. Headings of sections, subsections and paragraphs in this Agreement are for convenience only, and neither limit nor amplify the provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Security Agreement on the day and year first above written.

[SIGNATURES ON FOLLOWING PAGE]

PRO-PHARMACEUTICALS, INC.,
a Nevada corporation

By: Anthony Squeglia
Its: Chief Financial Officer

10X FUND, LP, a Delaware limited partnership

10X Capital Management, LLC, General
Partner, a Florida limited liability
company

By: Rod Martin
Title: Managing Member

NEITHER THIS WARRANT CERTIFICATE NOR THE WARRANTS REPRESENTED HEREBY NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF SUCH WARRANTS, NOR ANY INTEREST IN OR RIGHTS UNDER SAME, HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE LAWS OF ANY STATE, AND NEITHER THIS WARRANT CERTIFICATE NOR THE WARRANTS REPRESENTED HEREBY NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF SUCH WARRANTS, NOR ANY INTEREST IN OR RIGHTS UNDER SAME, MAY BE SOLD OR OTHERWISE TRANSFERRED UNLESS REGISTERED UNDER SUCH ACT AND APPLICABLE STATE SECURITIES LAWS OR AN EXEMPTION FROM REGISTRATION IS AVAILABLE.

W-2009-A1-

PRO-PHARMACEUTICALS, INC.

COMMON STOCK PURCHASE WARRANT – CLASS A-1

Pro-Pharmaceuticals, Inc., a Nevada corporation (the “Company”), for value received and subject to the terms set forth below hereby grants to 10X Fund, L.P., a Delaware limited partnership, or its registered successors and assigns (the “Holder”), the right to purchase from the Company at any time or from time to time until the date and time permitted under Section 2.1 below, _____ fully paid and nonassessable shares of the Common Stock, par value \$0.001 per share, at the purchase price of fifty cents (\$0.50) per share (the “Exercise Price”). The Exercise Price and the number and character of such shares of Common Stock purchasable pursuant to the rights granted under this Warrant are subject to adjustment as provided herein.

1. Definitions. As used herein the following terms, unless the context otherwise requires, have the following respective meanings:

“*Common Stock*” means the Company’s common stock, par value \$0.001 per share, and stock of any other class of securities into which such securities may hereafter have been reclassified or changed into, including any stock (other than Common Stock) and other securities of the Company or any other Person (corporate or other) which the Holder of this Warrant at any time shall be entitled to receive, or shall have received, upon the exercise of this Warrant, in lieu of or in addition to Common Stock, or which at any time shall be issuable or shall have been issued in exchange for or in replacement of Common Stock pursuant to Section 3.2 hereof or otherwise.

“*Issue Date*” means _____, 2009.

“*Mandatory Exercise Condition*” shall mean any Trading Day on which the Common Stock is trading on a Trading Market and on which the Market Value of the Common Stock for each of the fifteen (15) previous Trading Days exceeded \$1.25 per share (as adjusted for stock splits, stock dividends, combinations and similar transactions), and (ii) a Warrant Shares Registration Statement covering the resale of the shares of Common Stock issuable upon exercise of this Warrant is effective.

“Market Value” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market (other than the OTC Bulletin Board), the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg Financial L.P. (based on a Trading Day from 9:30 a.m. Eastern Time to 4:00 p.m. Eastern Time); (b) if the Common Stock is then listed or quoted on the OTC Bulletin Board, the average of the high and low price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board; or (c) if the Common Stock is not then listed or quoted on a Trading Market and if prices for the Common Stock are then reported in the “Pink Sheets” published by the Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported.

“Registration Rights Agreement” means the Registration Rights Agreement, dated as of the Issue Date, to which the Corporation and the original Holder are parties, as amended, modified or supplemented from time to time in accordance with its terms.

“This Warrant” means, collectively, this Warrant and all other stock purchase warrants issued in exchange therefor or replacement thereof.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any one of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq SmallCap Market, the NYSE Alternext US, the New York Stock Exchange, the Nasdaq National Market, the OTC Bulletin Board or the “Pink Sheets.”

“Warrant Shares Registration Statement” means a registration statement that meets the requirements of the Registration Rights Agreement and registers the resale of all Common Stock into which this Warrant may be exercised by the Holder, who shall be named as a “selling stockholder” thereunder, all as provided in the Registration Rights Agreement.

2. Exercise.

2.1 Exercise Period. The Holder may exercise this Warrant at any time after the Issue Date and before the close of business in Boston, Massachusetts on the fifth (5th) anniversary of the Issue Date (the “Exercise Period”), unless earlier terminated pursuant to Section 2.6 herein.

2.2 Exercise Procedure.

(a) This Warrant will be deemed to have been exercised at such time as the Company has received all of the following items (the “Exercise Date”):

(i) a completed Subscription Agreement as described in Section 2.4 hereof, executed by the Person exercising all or part of the purchase rights represented by this Warrant (the "Purchaser");

(ii) this Warrant;

(iii) if this Warrant is not registered in the name of the Purchaser, an Assignment or Assignments in the form set forth in Exhibit B hereto, evidencing the assignment of this Warrant to the Purchaser together with any documentation required pursuant to Section 8(a) hereof; and

(iv) a check payable to the order of the Company in an amount equal to the product of the Exercise Price multiplied by the number of shares of Common Stock being purchased upon such exercise.

(b) As soon as practicable after the exercise of this Warrant in full or in part, and in any event within ten (10) days after the Exercise Date, the Company at its expense will cause to be issued in the name of and delivered to the Purchaser, or as the Purchaser (upon payment by the Purchaser of any applicable transfer taxes) may direct, a certificate or certificates for the number of fully paid and non-assessable shares of Common Stock to which the Purchaser shall be entitled upon such exercise, together with any other stock or other securities and property (including cash, where applicable) to which the Purchaser is entitled upon exercise.

(c) Unless this Warrant has expired or all of the purchase rights represented hereby have been exercised, the Company at its expense will, within ten (10) days after the Exercise Date, issue and deliver to or upon the order of the Purchaser a new Warrant or Warrants of like tenor, in the name of the Purchaser or as the Purchaser (upon payment by the Purchaser of any applicable transfer taxes) may request, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock remaining issuable under this Warrant.

(d) The Common Stock issuable upon the exercise of this Warrant will be deemed to have been issued to the Purchaser on the Exercise Date, and the Purchaser will be deemed for all purposes to have become the record holder of such Common Stock on the Exercise Date.

(e) The issuance of certificates for shares of Common Stock upon exercise of this Warrant will be made without charge to the Holder or the Purchaser for any issuance tax in respect thereof or any other cost incurred by the Company in connection with such exercise and the related issuance of shares of Common Stock.

(f) The holder represents and warrants that at the time of any exercise of this warrant the holder is an "accredited investor," as such term is defined in Rule 501 promulgated under the Securities Act and acknowledges and agrees that the Company may, in its sole discretion, (i) require, as a condition to the exercise of this Warrant, that the holder provide such written evidence that such holder is an accredited investor as the time of exercise, and (ii) decline to issue the shares of Common Stock issuable upon such exercise if the Company is not satisfied that this warrant may be exercised by the holder pursuant to a valid registration exemption from the Securities Act and any applicable state securities law.

2.3 Acknowledgement of Continuing Obligations. The Company will, at the time of the exercise of this Warrant, upon the request of the Purchaser, acknowledge in writing its continuing obligation to afford to the Purchaser any rights to which the Purchaser shall continue to be entitled after such exercise in accordance with the provisions of this Warrant, provided that if the Purchaser shall fail to make any such request, such failure shall not affect the continuing obligation of the Company to afford to the Purchaser any such rights.

2.4 Subscription Agreement. The Subscription Agreement will be substantially in the form set forth in Exhibit A hereto, except that if the shares of Common Stock issuable upon exercise of this Warrant are not to be issued in the name of the Purchaser, the Subscription Agreement will also state the name of the Person to whom the certificates for the shares of Common Stock are to be issued, and if the number of shares of Common Stock to be issued does not include all the shares of Common Stock issuable hereunder, it will also state the name of the Person to whom a new Warrant for the unexercised portion of the rights hereunder is to be delivered.

2.5 Fractional Shares. If a fractional share of Common Stock would, but for the provisions of Section 2.1 hereof, be issuable upon exercise of the rights represented by this Warrant, the Company will, within ten (10) days after the Exercise Date, deliver to the Purchaser a check payable to the Purchaser in lieu of such fractional share, in an amount equal to the Market Value of such fractional share as of the close of business on the Exercise Date.

2.6 Mandatory Exercise. The Company may in its sole discretion, on any Trading Day as to which the Mandatory Exercise Condition is true, send the Holder a notice of termination (a "Termination Notice") of this Warrant, which shall provide that this Warrant shall terminate as of the close of business ninety (90) days after the date of the Termination Notice (the "Termination Date"), and this Warrant shall terminate and be no longer exercisable to the extent it has not been exercised on or before the Termination Date; provided that any Termination Notice shall be null, void and of no legal effect in the event the Warrant Shares Registration Statement is no longer effective as of the Termination Date for the Termination Notice.

3. Adjustments.

3.1 Adjustments for Stock Splits, Etc. If the Company shall at any time after the Issue Date subdivide its outstanding Common Stock, by split-up or otherwise, or combine its outstanding Common Stock, or issue additional shares of its capital stock in payment of a stock dividend in respect of its Common Stock, the number of shares issuable on the exercise of the unexercised portion of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination, and the Exercise Price then applicable to shares covered by the unexercised portion of this Warrant shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of combination.

3.2 Adjustment for Reclassification, Reorganization, Etc. In case of any reclassification, capital reorganization, or change of the outstanding Common Stock (other than as a result of a subdivision, combination or stock dividend), or in the case of any consolidation of the Company with, or merger of the Company into, another Person (other than a consolidation or merger in which the Company is the continuing corporation and which does not result in any

reclassification or change of the outstanding Common Stock of the Company), or in case of any sale or conveyance to one or more Persons of the property of the Company as an entirety or substantially as an entirety at any time prior to the expiration of this Warrant, then, as a condition of such reclassification, reorganization, change, consolidation, merger, sale or conveyance, lawful provision shall be made, and duly executed documents evidencing the same from the Company or its successor shall be delivered to the Holder of this Warrant, so that the Holder of this Warrant shall have the right at any time prior to the expiration of this Warrant to purchase, at a total price not to exceed that payable upon the exercise of the unexercised portion of this Warrant, the kind and amount of shares of stock and other securities and property receivable upon such reclassification, reorganization, change, consolidation, merger, sale or conveyance by a holder of the number of shares of Common Stock of the Company as to which this Warrant was exercisable immediately prior to such reclassification, reorganization, change, consolidation, merger, sale or conveyance, and in any such case appropriate provision shall be made with respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof (including, without limitation, provisions for the adjustment of the Exercise Price and of the number of shares purchasable upon exercise of this Warrant) shall thereafter be applicable in relation to any shares of stock, and other securities and property, thereafter deliverable upon exercise hereof. If, as a consequence of any such transaction, solely cash, and no securities or other property of any kind, is deliverable upon exercise of this Warrant, then, in such event, the Company may terminate this Warrant by giving the Holder hereof written notice thereof. Such notice shall specify the date (at least thirty (30) days subsequent to the date on which notice is given) on which, at 3:00 P.M., Boston, Massachusetts time, this Warrant shall terminate. Notwithstanding any such notice, this Warrant shall remain exercisable, and otherwise in full force and effect, until such time of termination.

3.3 Certificate of Adjustment. Whenever the Exercise Price or the number of shares issuable hereunder is adjusted, as herein provided, the Company shall promptly deliver to the registered Holder of this Warrant a certificate of the Treasurer of the Company, which certificate shall state (i) the Exercise Price and the number of shares of Common Stock issuable hereunder after such adjustment, (ii) the facts requiring such adjustment, and (iii) the method of calculation for such adjustment and increase or decrease.

3.4 Small Adjustments. No adjustment in the Exercise Price shall be required unless such adjustment would require an increase or decrease in the Exercise Price of at least one percent; provided, however, that any adjustments which by reason of this Section 3.5 are not required to be made immediately shall be carried forward and taken into account at the time of exercise of this Warrant or any subsequent adjustment in the Exercise Price which, singly or in combination with any adjustment carried forward, is required to be made under Sections 3.1 or 3.2.

4. Reservation of Stock, etc., Issuable on Exercise of Warrant. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, all shares of Common Stock from time to time issuable upon the exercise of this Warrant.

5. Disposition of This Warrant, Common Stock, Etc.

(a) The Holder of this Warrant and any transferee hereof or of the Common Stock with respect to which this Warrant may be exercisable, by their acceptance hereof, hereby understand

and agree that this Warrant and the Common Stock with respect to which this Warrant may be exercisable have not been registered under the Securities Act, and may not be sold, pledged, hypothecated, donated, or otherwise transferred (whether or not for consideration) without an effective registration statement under the Act or an opinion of counsel satisfactory to the Company and/or submission to the Company of such other evidence as may be satisfactory to counsel to the Company, in each such case, to the effect that any such transfer shall not be in violation of the Act. It shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company its written agreement to accept and be bound by all of the terms and conditions of this Warrant. The foregoing notwithstanding, the Company acknowledges its obligations as set forth in the Registration Rights Agreement to register the shares of Common Stock issuable upon exercise hereof.

(b) Except to the extent the resale of the shares of Common Stock issuable upon exercise hereof are registered for resale, or may be sold to the public pursuant to Rule 144(b)(1) under the Securities Act, the certificates of the Company that will evidence the shares of Common Stock with respect to which this Warrant may be exercisable will be imprinted with a conspicuous legend in substantially the following form:

“THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”), AND MAY NOT BE SOLD, PLEDGED, HYPOTHECATED, DONATED OR OTHERWISE TRANSFERRED (WHETHER OR NOT FOR CONSIDERATION) BY THE HOLDER WITHOUT AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND/OR SUBMISSION TO THE COMPANY OF SUCH OTHER EVIDENCE AS MAY BE SATISFACTORY TO COUNSEL TO THE COMPANY, IN EACH SUCH CASE, TO THE EFFECT THAT ANY SUCH TRANSFER SHALL NOT BE IN VIOLATION OF THE ACT.”

Except as set forth in the Registration Rights Agreement, the Company has not agreed to register any of the Holder’s shares of Common Stock of the Company with respect to which this Warrant may be exercisable for distribution in accordance with the provisions of the Securities Act, and the Company has not agreed to comply with any exemption from registration under the Act for the resale of the Holder’s shares of Common Stock with respect to which this Warrant may be exercised. Hence, it is the understanding of the Holder of this Warrant that by virtue of the provisions of certain rules respecting “restricted securities” promulgated by the SEC, the shares of Common Stock of the Company with respect to which this Warrant may be exercisable may be required to be held indefinitely, unless and until registered under the Securities Act (as contemplated by the Registration Rights Agreement), unless an exemption from such registration is available, in which case the Holder may still be limited as to the number of shares of Common Stock of the Company with respect to which this Warrant may be exercised that may be sold from time to time.

6. Rights and Obligations of Warrant Holder. The Holder of this Warrant shall not, by virtue hereof, be entitled to any voting rights or other rights as a stockholder of the Company. No provision of this Warrant, in the absence of affirmative actions by the Holder to purchase Common Stock of the Company by exercising this Warrant, and no enumeration in this Warrant

of the rights or privileges of the Holder, will give rise to any liability of such Holder for the Exercise Price of Common Stock acquirable by exercise hereof or as a stockholder of the Company.

7. Transfer of Warrants. Subject to compliance with the restrictions on transfer applicable to this Warrant referred to in Section 5 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, without charge to the registered Holder, upon surrender of this Warrant with a properly executed Assignment (in substantially the form attached hereto as Exhibit B), to the Company, and the Company at its expense will issue and deliver to or upon the order of the Holder hereof a new Warrant or Warrants in such denomination or denominations as may be requested, but otherwise of like tenor, in the name of the Holder or as the Holder (upon payment of any applicable transfer taxes) may direct.

8. Replacement of Warrants. Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of any Warrant and, in the case of any such loss, theft or destruction, upon delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of any such mutilation, upon surrender and cancellation of such Warrant, the Company at its expense will execute and deliver, in lieu thereof, a new Warrant of like tenor.

9. Company Records. Until this Warrant is transferred on the books of the Company, the Company may treat the registered Holder hereof as the absolute owner hereof for all purposes, notwithstanding any notice to the contrary.

10. Miscellaneous.

10.1 Notices. All notices and other communications from the Company to the Holder of this Warrant shall be mailed by first class mail, postage prepaid, to such address as may have been furnished to the Company in writing by such Holder, or, until an address is so furnished, to and at the address of the last Holder of this Warrant who has so furnished an address to the Company. All communications from the Holder of this Warrant to the Company shall be mailed by first class mail, postage prepaid, to Pro-Pharmaceuticals, Inc., 7 Wells Avenue, Newton, MA 02459 Attn: Chief Financial Officer, or such other address as may have been furnished to the Holder in writing by the Company.

10.2 Amendment and Waiver. Except as otherwise provided herein, this Warrant and any term hereof may be amended, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such amendment, waiver, discharge or termination is sought.

10.3 Governing Law; Descriptive Headings. This Warrant shall be construed and enforced in accordance with and governed by the laws of the State of Delaware. The headings in this Warrant are for purposes of reference only, and shall not limit or otherwise affect any of the terms hereof.

[SIGNATURE ON FOLLOWING PAGE]

Dated: , 20 .

PRO-PHARMACEUTICALS, INC.

By: _____
Name: Anthony Squeglia
Title: Chief Financial Officer

EXHIBIT A

SUBSCRIPTION AGREEMENT

[To be signed only upon exercise of Warrant]

To:

Date:

The undersigned, the Holder of the within Warrant, pursuant to the provisions set forth in the within Warrant, hereby irrevocably elects to exercise the purchase rights represented by such Warrant for, and agrees to subscribe for and purchase thereunder, _____ shares of the Common Stock covered by such Warrant and herewith makes payment of \$ _____ therefor, and requests that the certificates for such shares be issued in the name of, and delivered to, _____, whose address is: _____. If said number of shares is less than all the shares covered by such Warrant, a new Warrant shall be registered in the name of the undersigned and delivered to the address stated below.

Signature _____

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant or on the form of Assignment attached as Exhibit B thereto.)

Address _____

[Signature Guarantee]

EXHIBIT B

ASSIGNMENT

[To be signed only upon transfer of Warrant]

For value received, the undersigned hereby sells, assigns and transfers all of the rights of the undersigned under the within Warrant with respect to the number of shares of the Common Stock covered thereby set forth below, unto:

Name of Assignee

Address

No. of Shares

Dated:

Signature _____

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant.)

Address _____

[Signature Guarantee]

NEITHER THIS WARRANT CERTIFICATE NOR THE WARRANTS REPRESENTED HEREBY NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF SUCH WARRANTS, NOR ANY INTEREST IN OR RIGHTS UNDER SAME, HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE LAWS OF ANY STATE, AND NEITHER THIS WARRANT CERTIFICATE NOR THE WARRANTS REPRESENTED HEREBY NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF SUCH WARRANTS, NOR ANY INTEREST IN OR RIGHTS UNDER SAME, MAY BE SOLD OR OTHERWISE TRANSFERRED UNLESS REGISTERED UNDER SUCH ACT AND APPLICABLE STATE SECURITIES LAWS OR AN EXEMPTION FROM REGISTRATION IS AVAILABLE.

W-2009-A2-

PRO-PHARMACEUTICALS, INC.

COMMON STOCK PURCHASE WARRANT – CLASS A-2

Pro-Pharmaceuticals, Inc., a Nevada corporation (the “Company”), for value received and subject to the terms set forth below hereby grants to 10X Fund, L.P., a Delaware limited partnership, or its registered successors and assigns (the “Holder”), the right to purchase from the Company at any time or from time to time until the date and time permitted under Section 2.1 below, _____ fully paid and nonassessable shares of the Common Stock, par value \$0.001 per share, at the purchase price of fifty cents (\$0.50) per share (the “Exercise Price”). The Exercise Price and the number and character of such shares of Common Stock purchasable pursuant to the rights granted under this Warrant are subject to adjustment as provided herein.

1. Definitions. As used herein the following terms, unless the context otherwise requires, have the following respective meanings:

“*Common Stock*” means the Company’s common stock, par value \$0.001 per share, and stock of any other class of securities into which such securities may hereafter have been reclassified or changed into, including any stock (other than Common Stock) and other securities of the Company or any other Person (corporate or other) which the Holder of this Warrant at any time shall be entitled to receive, or shall have received, upon the exercise of this Warrant, in lieu of or in addition to Common Stock, or which at any time shall be issuable or shall have been issued in exchange for or in replacement of Common Stock pursuant to Section 3.2 hereof or otherwise.

“*Issue Date*” means _____, 2009.

“*Mandatory Exercise Condition*” shall mean any Trading Day on which the Common Stock is trading on a Trading Market and on which the Market Value of the Common Stock for each of the fifteen (15) previous Trading Days exceeded \$1.75 per share (as adjusted for stock splits, stock dividends, combinations and similar transactions), and (ii) a Warrant Shares Registration Statement covering the resale of the shares of Common Stock issuable upon exercise of this Warrant is effective.

“*Market Value*” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market (other than the OTC Bulletin Board), the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg Financial L.P. (based on a Trading Day from 9:30 a.m. Eastern Time to 4:00 p.m. Eastern Time); (b) if the Common Stock is then listed or quoted on the OTC Bulletin Board, the average of the high and low price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board; or (c) if the Common Stock is not then listed or quoted on a Trading Market and if prices for the Common Stock are then reported in the “Pink Sheets” published by the Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported.

“*Registration Rights Agreement*” means the Registration Rights Agreement, dated as of the Issue Date, to which the Corporation and the original Holder are parties, as amended, modified or supplemented from time to time in accordance with its terms.

“*This Warrant*” means, collectively, this Warrant and all other stock purchase warrants issued in exchange therefor or replacement thereof.

“*Trading Day*” means a day on which the Common Stock is traded on a Trading Market.

“*Trading Market*” means any one of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq SmallCap Market, the NYSE Alternext US, the New York Stock Exchange, the Nasdaq National Market, the OTC Bulletin Board or the “Pink Sheets.”

“*Warrant Shares Registration Statement*” means a registration statement that meets the requirements of the Registration Rights Agreement and registers the resale of all Common Stock into which this Warrant may be exercised by the Holder, who shall be named as a “selling stockholder” thereunder, all as provided in the Registration Rights Agreement.

2. Exercise.

2.1 Exercise Period. The Holder may exercise this Warrant at any time after the Issue Date and before the close of business in Boston, Massachusetts on the fifth (5th) anniversary of the Issue Date (the “Exercise Period”), unless earlier terminated pursuant to Section 2.6 herein.

2.2 Exercise Procedure.

(a) This Warrant will be deemed to have been exercised at such time as the Company has received all of the following items (the “Exercise Date”):

(i) a completed Subscription Agreement as described in Section 2.4 hereof, executed by the Person exercising all or part of the purchase rights represented by this Warrant (the “Purchaser”);

(ii) this Warrant;

(iii) if this Warrant is not registered in the name of the Purchaser, an Assignment or Assignments in the form set forth in Exhibit B hereto, evidencing the assignment of this Warrant to the Purchaser together with any documentation required pursuant to Section 8(a) hereof; and

(iv) a check payable to the order of the Company in an amount equal to the product of the Exercise Price multiplied by the number of shares of Common Stock being purchased upon such exercise.

(b) As soon as practicable after the exercise of this Warrant in full or in part, and in any event within ten (10) days after the Exercise Date, the Company at its expense will cause to be issued in the name of and delivered to the Purchaser, or as the Purchaser (upon payment by the Purchaser of any applicable transfer taxes) may direct, a certificate or certificates for the number of fully paid and non-assessable shares of Common Stock to which the Purchaser shall be entitled upon such exercise, together with any other stock or other securities and property (including cash, where applicable) to which the Purchaser is entitled upon exercise.

(c) Unless this Warrant has expired or all of the purchase rights represented hereby have been exercised, the Company at its expense will, within ten (10) days after the Exercise Date, issue and deliver to or upon the order of the Purchaser a new Warrant or Warrants of like tenor, in the name of the Purchaser or as the Purchaser (upon payment by the Purchaser of any applicable transfer taxes) may request, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock remaining issuable under this Warrant.

(d) The Common Stock issuable upon the exercise of this Warrant will be deemed to have been issued to the Purchaser on the Exercise Date, and the Purchaser will be deemed for all purposes to have become the record holder of such Common Stock on the Exercise Date.

(e) The issuance of certificates for shares of Common Stock upon exercise of this Warrant will be made without charge to the Holder or the Purchaser for any issuance tax in respect thereof or any other cost incurred by the Company in connection with such exercise and the related issuance of shares of Common Stock.

(f) The holder represents and warrants that at the time of any exercise of this warrant the holder is an "accredited investor," as such term is defined in Rule 501 promulgated under the Securities Act and acknowledges and agrees that the Company may, in its sole discretion, (i) require, as a condition to the exercise of this Warrant, that the holder provide such written evidence that such holder is an accredited investor as the time of exercise, and (ii) decline to issue the shares of Common Stock issuable upon such exercise if the Company is not satisfied that this warrant may be exercised by the holder pursuant to a valid registration exemption from the Securities Act and any applicable state securities law.

2.3 Acknowledgement of Continuing Obligations. The Company will, at the time of the exercise of this Warrant, upon the request of the Purchaser, acknowledge in writing its continuing obligation to afford to the Purchaser any rights to which the Purchaser shall continue to be entitled after such exercise in accordance with the provisions of this Warrant, provided that

if the Purchaser shall fail to make any such request, such failure shall not affect the continuing obligation of the Company to afford to the Purchaser any such rights.

2.4 Subscription Agreement. The Subscription Agreement will be substantially in the form set forth in Exhibit A hereto, except that if the shares of Common Stock issuable upon exercise of this Warrant are not to be issued in the name of the Purchaser, the Subscription Agreement will also state the name of the Person to whom the certificates for the shares of Common Stock are to be issued, and if the number of shares of Common Stock to be issued does not include all the shares of Common Stock issuable hereunder, it will also state the name of the Person to whom a new Warrant for the unexercised portion of the rights hereunder is to be delivered.

2.5 Fractional Shares. If a fractional share of Common Stock would, but for the provisions of Section 2.1 hereof, be issuable upon exercise of the rights represented by this Warrant, the Company will, within ten (10) days after the Exercise Date, deliver to the Purchaser a check payable to the Purchaser in lieu of such fractional share, in an amount equal to the Market Value of such fractional share as of the close of business on the Exercise Date.

2.6 Mandatory Exercise. The Company may in its sole discretion, on any Trading Day as to which the Mandatory Exercise Condition is true, send the Holder a notice of termination (a "Termination Notice") of this Warrant, which shall provide that this Warrant shall terminate as of the close of business ninety (90) days after the date of the Termination Notice (the "Termination Date"), and this Warrant shall terminate and be no longer exercisable to the extent it has not been exercised on or before the Termination Date; provided that any Termination Notice shall be null, void and of no legal effect in the event the Warrant Shares Registration Statement is no longer effective as of the Termination Date for the Termination Notice.

3. Adjustments.

3.1 Adjustments for Stock Splits, Etc. If the Company shall at any time after the Issue Date subdivide its outstanding Common Stock, by split-up or otherwise, or combine its outstanding Common Stock, or issue additional shares of its capital stock in payment of a stock dividend in respect of its Common Stock, the number of shares issuable on the exercise of the unexercised portion of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination, and the Exercise Price then applicable to shares covered by the unexercised portion of this Warrant shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of combination.

3.2 Adjustment for Reclassification, Reorganization, Etc. In case of any reclassification, capital reorganization, or change of the outstanding Common Stock (other than as a result of a subdivision, combination or stock dividend), or in the case of any consolidation of the Company with, or merger of the Company into, another Person (other than a consolidation or merger in which the Company is the continuing corporation and which does not result in any reclassification or change of the outstanding Common Stock of the Company), or in case of any sale or conveyance to one or more Persons of the property of the Company as an entirety or substantially as an entirety at any time prior to the expiration of this Warrant, then, as a condition of such reclassification, reorganization, change, consolidation, merger, sale or conveyance,

lawful provision shall be made, and duly executed documents evidencing the same from the Company or its successor shall be delivered to the Holder of this Warrant, so that the Holder of this Warrant shall have the right at any time prior to the expiration of this Warrant to purchase, at a total price not to exceed that payable upon the exercise of the unexercised portion of this Warrant, the kind and amount of shares of stock and other securities and property receivable upon such reclassification, reorganization, change, consolidation, merger, sale or conveyance by a holder of the number of shares of Common Stock of the Company as to which this Warrant was exercisable immediately prior to such reclassification, reorganization, change, consolidation, merger, sale or conveyance, and in any such case appropriate provision shall be made with respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof (including, without limitation, provisions for the adjustment of the Exercise Price and of the number of shares purchasable upon exercise of this Warrant) shall thereafter be applicable in relation to any shares of stock, and other securities and property, thereafter deliverable upon exercise hereof. If, as a consequence of any such transaction, solely cash, and no securities or other property of any kind, is deliverable upon exercise of this Warrant, then, in such event, the Company may terminate this Warrant by giving the Holder hereof written notice thereof. Such notice shall specify the date (at least thirty (30) days subsequent to the date on which notice is given) on which, at 3:00 P.M., Boston, Massachusetts time, this Warrant shall terminate. Notwithstanding any such notice, this Warrant shall remain exercisable, and otherwise in full force and effect, until such time of termination.

3.3 Certificate of Adjustment. Whenever the Exercise Price or the number of shares issuable hereunder is adjusted, as herein provided, the Company shall promptly deliver to the registered Holder of this Warrant a certificate of the Treasurer of the Company, which certificate shall state (i) the Exercise Price and the number of shares of Common Stock issuable hereunder after such adjustment, (ii) the facts requiring such adjustment, and (iii) the method of calculation for such adjustment and increase or decrease.

3.4 Small Adjustments. No adjustment in the Exercise Price shall be required unless such adjustment would require an increase or decrease in the Exercise Price of at least one percent; provided, however, that any adjustments which by reason of this Section 3.5 are not required to be made immediately shall be carried forward and taken into account at the time of exercise of this Warrant or any subsequent adjustment in the Exercise Price which, singly or in combination with any adjustment carried forward, is required to be made under Sections 3.1 or 3.2.

4. Reservation of Stock, etc., Issuable on Exercise of Warrant. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, all shares of Common Stock from time to time issuable upon the exercise of this Warrant.

5. Disposition of This Warrant, Common Stock, Etc.

(a) The Holder of this Warrant and any transferee hereof or of the Common Stock with respect to which this Warrant may be exercisable, by their acceptance hereof, hereby understand and agree that this Warrant and the Common Stock with respect to which this Warrant may be exercisable have not been registered under the Securities Act, and may not be sold, pledged, hypothecated, donated, or otherwise transferred (whether or not for consideration) without an effective registration statement under the Act or an opinion of counsel satisfactory to the

Company and/or submission to the Company of such other evidence as may be satisfactory to counsel to the Company, in each such case, to the effect that any such transfer shall not be in violation of the Act. It shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company its written agreement to accept and be bound by all of the terms and conditions of this Warrant. The foregoing notwithstanding, the Company acknowledges its obligations as set forth in the Registration Rights Agreement to register the shares of Common Stock issuable upon exercise hereof.

(b) Except to the extent the resale of the shares of Common Stock issuable upon exercise hereof are registered for resale, or may be sold to the public pursuant to Rule 144(b)(1) under the Securities Act, the certificates of the Company that will evidence the shares of Common Stock with respect to which this Warrant may be exercisable will be imprinted with a conspicuous legend in substantially the following form:

“THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”), AND MAY NOT BE SOLD, PLEDGED, HYPOTHECATED, DONATED OR OTHERWISE TRANSFERRED (WHETHER OR NOT FOR CONSIDERATION) BY THE HOLDER WITHOUT AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND/OR SUBMISSION TO THE COMPANY OF SUCH OTHER EVIDENCE AS MAY BE SATISFACTORY TO COUNSEL TO THE COMPANY, IN EACH SUCH CASE, TO THE EFFECT THAT ANY SUCH TRANSFER SHALL NOT BE IN VIOLATION OF THE ACT.”

Except as set forth in the Registration Rights Agreement, the Company has not agreed to register any of the Holder’s shares of Common Stock of the Company with respect to which this Warrant may be exercisable for distribution in accordance with the provisions of the Securities Act, and the Company has not agreed to comply with any exemption from registration under the Act for the resale of the Holder’s shares of Common Stock with respect to which this Warrant may be exercised. Hence, it is the understanding of the Holder of this Warrant that by virtue of the provisions of certain rules respecting “restricted securities” promulgated by the SEC, the shares of Common Stock of the Company with respect to which this Warrant may be exercisable may be required to be held indefinitely, unless and until registered under the Securities Act (as contemplated by the Registration Rights Agreement), unless an exemption from such registration is available, in which case the Holder may still be limited as to the number of shares of Common Stock of the Company with respect to which this Warrant may be exercised that may be sold from time to time.

6. Rights and Obligations of Warrant Holder. The Holder of this Warrant shall not, by virtue hereof, be entitled to any voting rights or other rights as a stockholder of the Company. No provision of this Warrant, in the absence of affirmative actions by the Holder to purchase Common Stock of the Company by exercising this Warrant, and no enumeration in this Warrant of the rights or privileges of the Holder, will give rise to any liability of such Holder for the Exercise Price of Common Stock acquirable by exercise hereof or as a stockholder of the Company.

7. Transfer of Warrants. Subject to compliance with the restrictions on transfer applicable to this Warrant referred to in Section 5 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, without charge to the registered Holder, upon surrender of this Warrant with a properly executed Assignment (in substantially the form attached hereto as Exhibit B), to the Company, and the Company at its expense will issue and deliver to or upon the order of the Holder hereof a new Warrant or Warrants in such denomination or denominations as may be requested, but otherwise of like tenor, in the name of the Holder or as the Holder (upon payment of any applicable transfer taxes) may direct.

8. Replacement of Warrants. Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of any Warrant and, in the case of any such loss, theft or destruction, upon delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of any such mutilation, upon surrender and cancellation of such Warrant, the Company at its expense will execute and deliver, in lieu thereof, a new Warrant of like tenor.

9. Company Records. Until this Warrant is transferred on the books of the Company, the Company may treat the registered Holder hereof as the absolute owner hereof for all purposes, notwithstanding any notice to the contrary.

10. Miscellaneous.

10.1 Notices. All notices and other communications from the Company to the Holder of this Warrant shall be mailed by first class mail, postage prepaid, to such address as may have been furnished to the Company in writing by such Holder, or, until an address is so furnished, to and at the address of the last Holder of this Warrant who has so furnished an address to the Company. All communications from the Holder of this Warrant to the Company shall be mailed by first class mail, postage prepaid, to Pro-Pharmaceuticals, Inc., 7 Wells Avenue, Newton, MA 02459 Attn: Chief Financial Officer, or such other address as may have been furnished to the Holder in writing by the Company.

10.2 Amendment and Waiver. Except as otherwise provided herein, this Warrant and any term hereof may be amended, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such amendment, waiver, discharge or termination is sought.

10.3 Governing Law; Descriptive Headings. This Warrant shall be construed and enforced in accordance with and governed by the laws of the State of Delaware. The headings in this Warrant are for purposes of reference only, and shall not limit or otherwise affect any of the terms hereof.

[SIGNATURE ON FOLLOWING PAGE]

Dated: , 20 .

PRO-PHARMACEUTICALS, INC.

By: _____
Name: Anthony Squeglia
Title: Chief Financial Officer

EXHIBIT A

SUBSCRIPTION AGREEMENT

[To be signed only upon exercise of Warrant]

To:

Date:

The undersigned, the Holder of the within Warrant, pursuant to the provisions set forth in the within Warrant, hereby irrevocably elects to exercise the purchase rights represented by such Warrant for, and agrees to subscribe for and purchase thereunder, _____ shares of the Common Stock covered by such Warrant and herewith makes payment of \$ _____ therefor, and requests that the certificates for such shares be issued in the name of, and delivered to, _____, whose address is: _____. If said number of shares is less than all the shares covered by such Warrant, a new Warrant shall be registered in the name of the undersigned and delivered to the address stated below.

Signature _____

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant or on the form of Assignment attached as Exhibit B thereto.)

Address _____

[Signature Guarantee]

EXHIBIT B

ASSIGNMENT

[To be signed only upon transfer of Warrant]

For value received, the undersigned hereby sells, assigns and transfers all of the rights of the undersigned under the within Warrant with respect to the number of shares of the Common Stock covered thereby set forth below, unto:

Name of Assignee

Address

No. of Shares

Dated:

Signature _____

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant.)

Address _____

[Signature Guarantee]

NEITHER THIS WARRANT CERTIFICATE NOR THE WARRANTS REPRESENTED HEREBY NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF SUCH WARRANTS, NOR ANY INTEREST IN OR RIGHTS UNDER SAME, HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE LAWS OF ANY STATE, AND NEITHER THIS WARRANT CERTIFICATE NOR THE WARRANTS REPRESENTED HEREBY NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF SUCH WARRANTS, NOR ANY INTEREST IN OR RIGHTS UNDER SAME, MAY BE SOLD OR OTHERWISE TRANSFERRED UNLESS REGISTERED UNDER SUCH ACT AND APPLICABLE STATE SECURITIES LAWS OR AN EXEMPTION FROM REGISTRATION IS AVAILABLE.

W-2009-B1-

PRO-PHARMACEUTICALS, INC.

COMMON STOCK PURCHASE WARRANT – CLASS B-1

Pro-Pharmaceuticals, Inc., a Nevada corporation (the “Company”), for value received and subject to the terms set forth below hereby grants to 10X Fund, L.P., a Delaware limited partnership, or its registered successors and assigns (the “Holder”), the right to purchase from the Company at any time or from time to time until the date and time permitted under Section 2.1 below, fully paid and nonassessable shares of the Common Stock, par value \$0.001 per share, at the purchase price of fifty cents (\$0.50) per share (the “Exercise Price”). The Exercise Price and the number and character of such shares of Common Stock purchasable pursuant to the rights granted under this Warrant are subject to adjustment as provided herein.

1. Definitions. As used herein the following terms, unless the context otherwise requires, have the following respective meanings:

(a) “*Common Stock*” means the Company’s common stock, par value \$0.001 per share, and stock of any other class of securities into which such securities may hereafter have been reclassified or changed into, including any stock (other than Common Stock) and other securities of the Company or any other Person (corporate or other) which the Holder of this Warrant at any time shall be entitled to receive, or shall have received, upon the exercise of this Warrant, in lieu of or in addition to Common Stock, or which at any time shall be issuable or shall have been issued in exchange for or in replacement of Common Stock pursuant to Section 3.2 hereof or otherwise.

(b) “*Issue Date*” means , 20 .

(c) “*Market Value*” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market (other than the OTC Bulletin Board), the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg Financial L.P. (based on a Trading Day from 9:30 a.m. Eastern Time to 4:00 p.m. Eastern Time); (b) if the Common Stock

is then listed or quoted on the OTC Bulletin Board, the average of the high and low price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board; or (c) if the Common Stock is not then listed or quoted on a Trading Market and if prices for the Common Stock are then reported in the "Pink Sheets" published by the Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported.

(e) "Registration Rights Agreement" means the Registration Rights Agreement, dated as of the Issue Date, to which the Corporation and the original Holder are parties, as amended, modified or supplemented from time to time in accordance with its terms.

(f) "This Warrant" means, collectively, this Warrant and all other stock purchase warrants issued in exchange therefor or replacement thereof.

(g) "Trading Day" means a day on which the Common Stock is traded on a Trading Market.

(h) "Trading Market" means any one of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq SmallCap Market, the NYSE Alternext US, the New York Stock Exchange, the Nasdaq National Market, the OTC Bulletin Board or the "Pink Sheets."

2. Exercise.

2.1 Exercise Period. The Holder may exercise this Warrant at any time after the Issue Date and before the close of business in Boston, Massachusetts on the fifth (5th) anniversary of the Issue Date (the "Exercise Period"), unless earlier terminated pursuant to Section 2.6 herein.

2.2 Exercise Procedure.

(a) This Warrant will be deemed to have been exercised at such time as the Company has received all of the following items (the "Exercise Date"):

(i) a completed Subscription Agreement as described in Section 2.4 hereof, executed by the Person exercising all or part of the purchase rights represented by this Warrant (the "Purchaser");

(ii) this Warrant;

(iii) if this Warrant is not registered in the name of the Purchaser, an Assignment or Assignments in the form set forth in Exhibit B hereto, evidencing the assignment of this Warrant to the Purchaser together with any documentation required pursuant to Section 8(a) hereof; and

(iv) a check payable to the order of the Company in an amount equal to the product of the Exercise Price multiplied by the number of shares of Common Stock being purchased upon such exercise. Alternatively, this Warrant may be exercised by means of a "cashless

exercise” in which the Holder shall be entitled to receive a certificate for the number of shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the average of the high and low trading prices per share of Common Stock on the Trading Day preceding the date of such election;

(B) = the Exercise Price of the Warrants; and

(X) = the number of shares issuable upon exercise of the Warrants in accordance with the terms of this Warrant.

(b) As soon as practicable after the exercise of this Warrant in full or in part, and in any event within ten (10) days after the Exercise Date, the Company at its expense will cause to be issued in the name of and delivered to the Purchaser, or as the Purchaser (upon payment by the Purchaser of any applicable transfer taxes) may direct, a certificate or certificates for the number of fully paid and non-assessable shares of Common Stock to which the Purchaser shall be entitled upon such exercise, together with any other stock or other securities and property (including cash, where applicable) to which the Purchaser is entitled upon exercise.

(c) Unless this Warrant has expired or all of the purchase rights represented hereby have been exercised, the Company at its expense will, within ten (10) days after the Exercise Date, issue and deliver to or upon the order of the Purchaser a new Warrant or Warrants of like tenor, in the name of the Purchaser or as the Purchaser (upon payment by the Purchaser of any applicable transfer taxes) may request, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock remaining issuable under this Warrant.

(d) The Common Stock issuable upon the exercise of this Warrant will be deemed to have been issued to the Purchaser on the Exercise Date, and the Purchaser will be deemed for all purposes to have become the record holder of such Common Stock on the Exercise Date.

(e) The issuance of certificates for shares of Common Stock upon exercise of this Warrant will be made without charge to the Holder or the Purchaser for any issuance tax in respect thereof or any other cost incurred by the Company in connection with such exercise and the related issuance of shares of Common Stock.

(f) The holder represents and warrants that at the time of any exercise of this warrant the holder is an “accredited investor,” as such term is defined in Rule 501 promulgated under the Securities Act and acknowledges and agrees that the Company may, in its sole discretion, (i) require, as a condition to the exercise of this Warrant, that the holder provide such written evidence that such holder is an accredited investor as the time of exercise, and (ii) decline to issue the shares of Common Stock issuable upon such exercise if the Company is not satisfied that this warrant may be exercised by the holder pursuant to a valid registration exemption from the Securities Act and any applicable state securities law.

2.3 Acknowledgement of Continuing Obligations. The Company will, at the time of the exercise of this Warrant, upon the request of the Purchaser, acknowledge in writing its continuing obligation to afford to the Purchaser any rights to which the Purchaser shall continue to be entitled after such exercise in accordance with the provisions of this Warrant, provided that

if the Purchaser shall fail to make any such request, such failure shall not affect the continuing obligation of the Company to afford to the Purchaser any such rights.

2.4 Subscription Agreement. The Subscription Agreement will be substantially in the form set forth in Exhibit A hereto, except that if the shares of Common Stock issuable upon exercise of this Warrant are not to be issued in the name of the Purchaser, the Subscription Agreement will also state the name of the Person to whom the certificates for the shares of Common Stock are to be issued, and if the number of shares of Common Stock to be issued does not include all the shares of Common Stock issuable hereunder, it will also state the name of the Person to whom a new Warrant for the unexercised portion of the rights hereunder is to be delivered.

2.5 Fractional Shares. If a fractional share of Common Stock would, but for the provisions of Section 2.1 hereof, be issuable upon exercise of the rights represented by this Warrant, the Company will, within ten (10) days after the Exercise Date, deliver to the Purchaser a check payable to the Purchaser in lieu of such fractional share, in an amount equal to the Market Value of such fractional share as of the close of business on the Exercise Date.

3. Adjustments.

3.1 Adjustments for Stock Splits, Etc. If the Company shall at any time after the Issue Date subdivide its outstanding Common Stock, by split-up or otherwise, or combine its outstanding Common Stock, or issue additional shares of its capital stock in payment of a stock dividend in respect of its Common Stock, the number of shares issuable on the exercise of the unexercised portion of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination, and the Exercise Price then applicable to shares covered by the unexercised portion of this Warrant shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of combination.

3.2 Adjustment for Reclassification, Reorganization, Etc. In case of any reclassification, capital reorganization, or change of the outstanding Common Stock (other than as a result of a subdivision, combination or stock dividend), or in the case of any consolidation of the Company with, or merger of the Company into, another Person (other than a consolidation or merger in which the Company is the continuing corporation and which does not result in any reclassification or change of the outstanding Common Stock of the Company), or in case of any sale or conveyance to one or more Persons of the property of the Company as an entirety or substantially as an entirety at any time prior to the expiration of this Warrant, then, as a condition of such reclassification, reorganization, change, consolidation, merger, sale or conveyance, lawful provision shall be made, and duly executed documents evidencing the same from the Company or its successor shall be delivered to the Holder of this Warrant, so that the Holder of this Warrant shall have the right at any time prior to the expiration of this Warrant to purchase, at a total price not to exceed that payable upon the exercise of the unexercised portion of this Warrant, the kind and amount of shares of stock and other securities and property receivable upon such reclassification, reorganization, change, consolidation, merger, sale or conveyance by a holder of the number of shares of Common Stock of the Company as to which this Warrant was exercisable immediately prior to such reclassification, reorganization, change, consolidation, merger, sale or conveyance, and in any such case appropriate provision shall be made with

respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof (including, without limitation, provisions for the adjustment of the Exercise Price and of the number of shares purchasable upon exercise of this Warrant) shall thereafter be applicable in relation to any shares of stock, and other securities and property, thereafter deliverable upon exercise hereof. If, as a consequence of any such transaction, solely cash, and no securities or other property of any kind, is deliverable upon exercise of this Warrant, then, in such event, the Company may terminate this Warrant by giving the Holder hereof written notice thereof. Such notice shall specify the date (at least thirty (30) days subsequent to the date on which notice is given) on which, at 3:00 P.M., Boston, Massachusetts time, this Warrant shall terminate. Notwithstanding any such notice, this Warrant shall remain exercisable, and otherwise in full force and effect, until such time of termination.

3.3 Certificate of Adjustment. Whenever the Exercise Price or the number of shares issuable hereunder is adjusted, as herein provided, the Company shall promptly deliver to the registered Holder of this Warrant a certificate of the Treasurer of the Company, which certificate shall state (i) the Exercise Price and the number of shares of Common Stock issuable hereunder after such adjustment, (ii) the facts requiring such adjustment, and (iii) the method of calculation for such adjustment and increase or decrease.

3.4 Small Adjustments. No adjustment in the Exercise Price shall be required unless such adjustment would require an increase or decrease in the Exercise Price of at least one percent; provided, however, that any adjustments which by reason of this Section 3.5 are not required to be made immediately shall be carried forward and taken into account at the time of exercise of this Warrant or any subsequent adjustment in the Exercise Price which, singly or in combination with any adjustment carried forward, is required to be made under Sections 3.1 or 3.2.

4. Reservation of Stock, etc., Issuable on Exercise of Warrant. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, all shares of Common Stock from time to time issuable upon the exercise of this Warrant.

5. Disposition of This Warrant, Common Stock, Etc.

(a) The Holder of this Warrant and any transferee hereof or of the Common Stock with respect to which this Warrant may be exercisable, by their acceptance hereof, hereby understand and agree that this Warrant and the Common Stock with respect to which this Warrant may be exercisable have not been registered under the Securities Act, and may not be sold, pledged, hypothecated, donated, or otherwise transferred (whether or not for consideration) without an effective registration statement under the Act or an opinion of counsel satisfactory to the Company and/or submission to the Company of such other evidence as may be satisfactory to counsel to the Company, in each such case, to the effect that any such transfer shall not be in violation of the Act. It shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company its written agreement to accept and be bound by all of the terms and conditions of this Warrant. The foregoing notwithstanding, the Company acknowledges its obligations as set forth in the Registration Rights Agreement to register the shares of Common Stock issuable upon exercise hereof.

(b) Except to the extent the resale of the shares of Common Stock issuable upon exercise hereof are registered for resale, or may be sold to the public pursuant to Rule 144(b)(1) under the Securities Act, the certificates of the Company that will evidence the shares of Common Stock with respect to which this Warrant may be exercisable will be imprinted with a conspicuous legend in substantially the following form:

“THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”), AND MAY NOT BE SOLD, PLEDGED, HYPOTHECATED, DONATED OR OTHERWISE TRANSFERRED (WHETHER OR NOT FOR CONSIDERATION) BY THE HOLDER WITHOUT AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND/OR SUBMISSION TO THE COMPANY OF SUCH OTHER EVIDENCE AS MAY BE SATISFACTORY TO COUNSEL TO THE COMPANY, IN EACH SUCH CASE, TO THE EFFECT THAT ANY SUCH TRANSFER SHALL NOT BE IN VIOLATION OF THE ACT.”

Except as set forth in the Registration Rights Agreement, the Company has not agreed to register any of the Holder’s shares of Common Stock of the Company with respect to which this Warrant may be exercisable for distribution in accordance with the provisions of the Securities Act, and the Company has not agreed to comply with any exemption from registration under the Act for the resale of the Holder’s shares of Common Stock with respect to which this Warrant may be exercised. Hence, it is the understanding of the Holder of this Warrant that by virtue of the provisions of certain rules respecting “restricted securities” promulgated by the SEC, the shares of Common Stock of the Company with respect to which this Warrant may be exercisable may be required to be held indefinitely, unless and until registered under the Securities Act (as contemplated by the Registration Rights Agreement), unless an exemption from such registration is available, in which case the Holder may still be limited as to the number of shares of Common Stock of the Company with respect to which this Warrant may be exercised that may be sold from time to time.

6. Rights and Obligations of Warrant Holder. The Holder of this Warrant shall not, by virtue hereof, be entitled to any voting rights or other rights as a stockholder of the Company. No provision of this Warrant, in the absence of affirmative actions by the Holder to purchase Common Stock of the Company by exercising this Warrant, and no enumeration in this Warrant of the rights or privileges of the Holder, will give rise to any liability of such Holder for the Exercise Price of Common Stock acquirable by exercise hereof or as a stockholder of the Company.

7. Transfer of Warrants. Subject to compliance with the restrictions on transfer applicable to this Warrant referred to in Section 5 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, without charge to the registered Holder, upon surrender of this Warrant with a properly executed Assignment (in substantially the form attached hereto as Exhibit B), to the Company, and the Company at its expense will issue and deliver to or upon the order of the Holder hereof a new Warrant or Warrants in such denomination or denominations as may be requested, but otherwise of like tenor, in the name of the Holder or as the Holder (upon payment of any applicable transfer taxes) may direct.

8. Replacement of Warrants. Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of any Warrant and, in the case of any such loss, theft or destruction, upon delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of any such mutilation, upon surrender and cancellation of such Warrant, the Company at its expense will execute and deliver, in lieu thereof, a new Warrant of like tenor.

9. Company Records. Until this Warrant is transferred on the books of the Company, the Company may treat the registered Holder hereof as the absolute owner hereof for all purposes, notwithstanding any notice to the contrary.

10. Miscellaneous.

10.1 Notices. All notices and other communications from the Company to the Holder of this Warrant shall be mailed by first class mail, postage prepaid, to such address as may have been furnished to the Company in writing by such Holder, or, until an address is so furnished, to and at the address of the last Holder of this Warrant who has so furnished an address to the Company. All communications from the Holder of this Warrant to the Company shall be mailed by first class mail, postage prepaid, to Pro-Pharmaceuticals, Inc., 7 Wells Avenue, Newton, MA 02459 Attn: Chief Financial Officer, or such other address as may have been furnished to the Holder in writing by the Company.

10.2 Amendment and Waiver. Except as otherwise provided herein, this Warrant and any term hereof may be amended, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such amendment, waiver, discharge or termination is sought.

10.3 Governing Law; Descriptive Headings. This Warrant shall be construed and enforced in accordance with and governed by the laws of the State of Delaware. The headings in this Warrant are for purposes of reference only, and shall not limit or otherwise affect any of the terms hereof.

Dated: , 20 .

PRO-PHARMACEUTICALS, INC.

By: _____

Name: Anthony Squeglia

Title: Chief Financial Officer

EXHIBIT A

SUBSCRIPTION AGREEMENT

[To be signed only upon exercise of Warrant]

To:

Date:

The undersigned, the Holder of the within Warrant, pursuant to the provisions set forth in the within Warrant, hereby irrevocably elects to exercise the purchase rights represented by such Warrant for, and agrees to subscribe for and purchase thereunder, _____ shares of the Common Stock covered by such Warrant and herewith makes payment of \$ _____ therefor, and requests that the certificates for such shares be issued in the name of, and delivered to, _____, whose address is: _____. If said number of shares is less than all the shares covered by such Warrant, a new Warrant shall be registered in the name of the undersigned and delivered to the address stated below.

Signature _____

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant or on the form of Assignment attached as Exhibit B thereto.)

Address _____

[Signature Guarantee]

EXHIBIT B

ASSIGNMENT

[To be signed only upon transfer of Warrant]

For value received, the undersigned hereby sells, assigns and transfers all of the rights of the undersigned under the within Warrant with respect to the number of shares of the Common Stock covered thereby set forth below, unto:

Name of Assignee

Address

No. of Shares

Dated:

Signature

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant.)

Address

[Signature Guarantee]

AGREEMENT

This Agreement is entered into on the 21st day of January, 2011, by and between Pro-Pharmaceuticals, Inc., a Nevada corporation (the "Company") and 10X Fund, L.P., a Delaware limited partnership (the "Investor").

WHEREAS, the Investor pursuant to a Securities Purchase Agreement dated February 12, 2009, as amended (the "Securities Purchase Agreement") is the holder of 3,000,000 shares of Series B-1 and B-2 Convertible Preferred Stock (collectively, the "Series B Preferred Stock") of the Company, Class A-1 Warrants (the "Class A-1 Warrants"), Class A-2 Warrants (the "Class A-2 Warrants"), and Class B Warrants (the "Class B Warrants" and with the Class A-1 Warrants and the Class A-2 Warrants, the "Warrants"), as well as shares of Common Stock of the Company that have been issued as dividends on the Series B Preferred Stock;

WHEREAS, the terms of the Series B Preferred Stock are set forth in a Certificate of Designation of Preferences, Rights and Limitations for the Series B-1 and Series B-2 Convertible Preferred Stock (the "Certificate of Designation") dated February 12, 2009, as amended by amendments dated on or about August 12, 2009, February 17, 2010 and August 12, 2010;

WHEREAS, the Company and the Investor have agreed to amend and restate the Certificate of Designation and amend the Warrants on the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained, and intending to be legally bound hereby, the parties hereto agree as follows:

1. Amendments to Certificate of Designation. The Company and the Investor hereby agree to amend and restate the Certificate of Designation in the following manner, as more fully set forth in Exhibit A hereto:

- (a) To delete the Company's right to convert the Series B Preferred Stock to Common Stock under certain conditions, as set forth in Section 5(c) of the Certificate of Designations;
- (b) To extend the Series B-1 Redemption Date and the Series B-2 Redemption Date from July 15, 2011 to be the earlier of (i) February 12, 2019, or (ii) the date of issuance of a promissory note to David Platt, Ph.D. pursuant to Paragraph 3(f) of the Separation Agreement between the Company and Dr. Platt dated February 9, 2009; and
- (c) To provide that the Company may pay dividends on the Series B Preferred Stock on the terms set forth in the original Certificate of Designation beginning with the dividend date due September 30, 2011.

- (d) To provide that any shares of Series B Preferred Stock that are presented for transfer by the Investor (including to its partners) shall be deemed converted into Common Stock on such date.

The Company shall file the amended and restated Certificate of Designation in the form set forth as Exhibit A hereto.

2. Amendment to Class B Warrants. The Company and the Investor hereby agree to amend one-half (1/2) of the Class B Warrants to provide that they may be exercised on a cash-less basis by adding the following language to the end of Paragraph 2.2(a)(iv) to such Class B Warrants:

“Alternatively, this Warrant may be exercised by means of a “cashless exercise” in which the Holder shall be entitled to receive a certificate for the number of shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the average of the high and low trading prices per share of Common Stock on the Trading Day preceding the date of such election;

(B) = the Exercise Price of the Warrants; and

(X) = the number of shares issuable upon exercise of the Warrants in accordance with the terms of this Warrant.”

The Class B Warrants that are amended as described above shall thereafter be named “Class B-1 Warrants,” and the Class B Warrants that are not amended shall continue to be named “Class B Warrants.” To the extent that Class B Warrants were issued at different dates in an Initial Closing or Subsequent Closing (as such terms are defined in the Securities Purchase Agreement), one-half (1/2) of the Class B Warrants issued at each issuance date shall be amended to be Class B-1 Warrants and one-half (1/2) shall remain Class B Warrants. One-half (1/2) of all outstanding Class B Warrants issued in the Initial Closing and in each Subsequent Closing are hereby deemed amended to add the above language at the end of Paragraph 2.2(a)(iv) thereof, and any certificates for Class B-1 Warrants that are thereafter reissued for any reason shall be reissued on the form attached hereto as Exhibit B.

3. Amendment to Class A-1 and A-2 Warrants. The Company and the Investor hereby agree to amend the Class A-1 and A-2 Warrants to change Paragraph 2.6 of the Class A-1 and A-2 Warrant certificates to provide that the Termination Date will occur ninety (90) days after a Termination Notice is sent. All outstanding Class A-1 and A-2 Warrants are hereby deemed amended to add change “thirty (30)” to “ninety (90)” in Paragraph 2.6 thereof, and any certificates for Class A-1 or A-2 Warrants that are thereafter reissued for any reason shall be reissued on the forms attached hereto as Exhibits C and D.

4. Amendment to Investor Documents. The Investor hereby represents and warrants that it has, after obtaining all necessary approvals of its partners, amended its

limited partnership agreement to provide that it has the right to bar withdrawals by its limited partners until at least May 12, 2016, provided that it has in place a quarterly liquidity program administered by its general partner in which limited partners are entitled to participate in sales of the Company's common stock owned by the Investor on a quarterly basis.

5. Mutual Representations and Warranties. Each party represents and warrants to the other as follows:

- (a) Authorization. Each party has all requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder. The execution and delivery of this Agreement and all documents attached hereto as Exhibits and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the respective party and no further action is required by the party or its directors, partners or stockholders, as applicable. This Agreement and all documents attached hereto as Exhibits have been (or upon delivery will have been) duly executed by the party and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the party enforceable against the party in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.
- (b) No Conflicts. The execution, delivery and performance of this Agreement and all documents attached hereto as Exhibits by the party do not and will not (i) conflict with or violate any provision of the party's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any lien upon any of the properties or assets of the party or its subsidiary or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a debt of the party or a subsidiary thereof) or other understanding to which the party or its subsidiary is a party or by which any property or asset of the party or its subsidiary is bound or affected, or (iii) conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the party or its subsidiary is subject

(including federal and state securities laws and regulations), or by which any property or asset of the party or its subsidiary is bound or affected.

- (c) Valid, Binding and Enforceable. This Agreement hereto constitutes (and the Exhibits attached hereto will, when executed and delivered, constitute) the legal, valid and binding obligation of the party, enforceable in accordance with their terms, except as limited by bankruptcy or other any applicable federal, state, municipal or local statute, law, ordinance, rule, regulation, order, judgment, writ, injunction or decree enacted, adopted, issued or promulgated applicable generally to creditor's rights and as limited by general equitable principles.

6. Waiver of Noncompliance with Series B Preferred Stock. To the extent the issue, sale and terms of the Company' Series C Super Dividend Convertible Preferred Stock conflict with, or were not compliant with requirements of, the Certificate of Designation or the Securities Purchase Agreement, the Investor waives any rights and remedies it may have with respect to such conflict(s) or noncompliance.

7. Entire Agreement. This Agreement embodies the entire agreement and understanding between the parties and supersedes all prior agreements and understandings relating to the subject matter hereof, provided that the parties may embody in one or more separate documents their agreement, if any, with respect to delegated duties.

8. Amendments. This Agreement, or any term hereof, may be changed or waived only by a written amendment, signed by the party against whom enforcement of such change or waiver is sought.

9. Governing Law. This Agreement shall be deemed to be a contract made in Massachusetts and governed by Massachusetts law, without regard to principles of conflicts of law.

10. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

11. Facsimile Signatures. The facsimile signature of any party to this Agreement shall constitute the valid and binding execution hereof by such party.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

PRO-PHARMACEUTICALS, INC., a Nevada corporation

By: /S/ THEODORE D. ZUCCONI
Name: Theodore D. Zucconi, Ph.D.
Title: Chief Executive Officer and President

10X FUND, L.P., a Delaware limited partnership

By: 10X Capital Management, LLC, a Florida limited liability company, its General Partner

By: /S/ ROD D. MARTIN
Name: Rod D. Martin
Title: Managing Member

EXHIBIT A

[Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock attached to this Current Report on Form 8-K as Exhibit 3.1]

EXHIBIT B

[form of Class B-1 Common Stock Purchase Warrant attached to this Current Report on Form 8-K as Exhibit 4.3]

EXHIBIT C

[form of Class A-1 Common Stock Purchase Warrant attached to this Current Report on Form 8-K as Exhibit 4.1]

EXHIBIT D

[form of Class A-2 Common Stock Purchase Warrant attached to this Current Report on Form 8-K as Exhibit 4.2]