

**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**

Date of Report (date of earliest event reported): October 2, 2003

**PRO-PHARMACEUTICALS, INC.**

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(Exact Name of Registrant as Specified in its Charter)

**Nevada**

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(State or Other Jurisdiction of Incorporation)

**000-32877**

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(Commission File Number)

**189 Wells Avenue, Newton, Massachusetts**

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(Address of Principal Executive Offices)

**04-3562325**

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(IRS Employer Identification No.)

**02459**

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(Zip Code)

**(617) 559-0033**

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(Registrant's Telephone Number, Including Area Code)

**Not Applicable**

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(Former Name or Former Address, If Changed Since Last Report)

Item 5. Other Events and Regulation FD Disclosure

On October 2, 2003 we entered into a Securities Purchase Agreement (the "Purchase Agreement") with certain institutional investors named therein (the "Purchasers") relating to the private placement of shares of our common stock, \$.001 par value per share ("Common Stock"), and common stock purchase warrants (the "Warrants"). We also entered into a related Registration Rights Agreement. As a result, we will issue to the Purchasers 1,314,571 shares of Common Stock (the "Shares") at a price of \$3.50 each for gross proceeds of approximately \$4.6 million, and Warrants to purchase of 657,293 shares of Common Stock, exercisable at \$5.29 per share, subject to customary adjustments, until the fifth anniversary of October 2, 2003.

In connection with the private placement, we are obligated to pay cash fees to the placement agent, Rodman & Renshaw, Inc., for its services on our behalf. In addition, we will issue to Rodman & Renshaw, Inc. a warrant to purchase 65,729 shares of the Common Stock, exercisable at \$6.86 per share, subject to customary adjustments, until the third anniversary of October 2, 2003.

Copies of the Purchase Agreement, Registration Rights Agreement and forms of the common stock purchase warrant issued to the Purchasers and to Rodman & Renshaw, Inc., as well as our October 3, 2003 press release announcing the closing of the private placement, are filed as exhibits to this report and are incorporated herein by reference.

Item 7. Financial Statements and Exhibits

(c) Exhibits.

- 10.1 Securities Purchase Agreement dated October 2, 2003, by and among Pro-Pharmaceuticals, Inc. and the Purchasers named therein.
- 10.2 Registration Rights Agreement dated October 2, 2003, by and among Pro-Pharmaceuticals, Inc. and the Purchasers named therein.
- 10.3 Form of Common Stock Purchase Warrant to be issued to the Purchasers under the Purchase Agreement.
- 10.4 Form of Common Stock Purchase Warrant to be issued to Rodman and Renshaw, Inc.
- 99.1 Press Release of Pro-Pharmaceuticals, Inc. dated October 3, 2003

**SIGNATURE**

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 thereunto duly authorized.

PRO-PHARMACEUTICALS, INC.

By: /s/ DAVID PLATT

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David Platt  
Chief Executive Officer

Date: October 6, 2003

**SECURITIES PURCHASE AGREEMENT**

This Securities Purchase Agreement (this "*Agreement*") is dated as of October 2, 2003, among Pro-Pharmaceuticals, Inc., a Nevada corporation (the "*Company*"), and the purchasers identified on the signature pages hereto (each a "*Purchaser*" and collectively the "*Purchasers*"); and

WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to Section 4(2) of the Securities Act (as defined below), and Rule 506 promulgated thereunder, the Company desires to issue and sell to the Purchasers, and each Purchaser, severally and not jointly, desires to purchase from the Company in the aggregate, up to \$5,000,000 of Common Stock and Warrants to purchase shares of Common Stock.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and each Purchaser agrees as follows:

**ARTICLE I.  
DEFINITIONS**

1.1 *Definitions.* In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings indicated in this Section 1.1:

"*Action*" shall have the meaning ascribed to such term in Section 3.1(j).

"*Affiliate*" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 144. With respect to a Purchaser, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Purchaser will be deemed to be an Affiliate of such Purchaser.

"*Business Day*" means any day except Saturday, Sunday and any day which shall be a federal legal holiday or a day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"*Closing*" means the closing of the purchase and sale of the Common Stock and Warrants pursuant to Section 2.1(a).

"*Closing Date*" means the date of the Closing.

"*Closing Price*" means on any particular date (a) the last reported closing bid price per share of Common Stock on such date on the Trading Market (as reported by Bloomberg L.P. at 4:15 PM (New York time) as the last reported closing bid price for regular session trading on such day), or (b) if there is no such price on such date, then the closing bid price on the Trading Market on the date nearest preceding such date (as reported by Bloomberg L.P. at 4:15 PM (New York time) as the closing bid price for regular session trading on such day), or (c) if the Common Stock is not then listed or

quoted on the Trading Market and if prices for the Common Stock are then reported in the “pink sheets” published by the National Quotation Bureau Incorporated (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 shares of Common Stock are not then publicly traded the fair market value of a share of Common Stock as determined by an appraiser selected in good faith by the Purchasers of a majority in interest of the Shares then outstanding.

“*Commission*” means the Securities and Exchange Commission.

“*Common Stock*” means the common stock of the Company, \$0.001 par value per share, and any securities into which such common stock may hereafter be reclassified.

“*Common Stock Equivalents*” means any securities of the Company 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 exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“*Company Counsel*” means Perkins Smith & Cohen LLP.

“*Disclosure Schedules*” means the Disclosure Schedules concurrently delivered herewith.

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

“*Exchange Act*” means the Securities Exchange Act of 1934, as amended.

“*FW*” shall mean Feldman Weinstein LLP with offices at 420 Lexington Avenue, New York, New York 10170-0002.

“*Intellectual Property Rights*” shall have the meaning ascribed to such term in Section 3.1(o).

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

“*Material Adverse Effect*” shall have the meaning ascribed to such term in Section 3.1(b).

“*Material Permits*” shall have the meaning ascribed to such term in Section 3.1(m).

“*Per Share Purchase Price*” equals \$3.50, subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

“*Person*” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“*Registration Statement*” means a registration statement meeting the requirements set forth in the Registration Rights Agreement and covering the resale by the Purchasers of the Shares and the Warrant Shares.

“*Registration Rights Agreement*” means the Registration Rights Agreement, dated as of the date of this Agreement, among the Company and each Purchaser, in the form of *Exhibit B* hereto.

“*Rule 144*” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

“*SEC Reports*” shall have the meaning ascribed to such term in Section 3.1(h).

“*Securities*” means the Shares, the Warrants and the Warrant Shares.

“*Securities Act*” means the Securities Act of 1933, as amended.

“*Shares*” means the shares of Common Stock issued or issuable to each Purchaser pursuant to this Agreement.

“*Subscription Amount*” means, as to each Purchaser and the Closing, the amounts set forth below such Purchaser’s signature block on the signature page hereto, in United States dollars and in immediately available funds.

“*Subsidiary*” shall have the meaning ascribed to such term in Section 3.1(a).

“*Trading Day*” means (i) a day on which the Common Stock is traded on a Trading Market, or (ii) if the Common Stock is not listed on a Trading Market, a day on which the Common Stock is traded on the over-the-counter market, as reported by the OTC Bulletin Board, or (iii) if the Common Stock is not quoted on the OTC Bulletin Board, a day on which the Common Stock is quoted in the over-the-counter market as reported by the National Quotation Bureau Incorporated (or any similar organization or agency succeeding to its functions of reporting prices); provided, that in the event that the Common Stock is not listed or quoted as set forth in (i), (ii) and (iii) hereof, then Trading Day shall mean a Business Day.

“*Trading Market*” means the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the American Stock Exchange, the New York Stock Exchange, the Nasdaq National Market or the Nasdaq SmallCap Market.

“*Transaction Documents*” means this Agreement, the Registration Rights Agreement, the Warrant and any other documents or agreements executed in connection with the transactions contemplated hereunder.

“*Warrants*” means the Common Stock Purchase Warrants, in the form of *Exhibit C*, issuable to the Purchasers at Closing, which warrants shall be exercisable immediately and have an exercise price equal to \$5.29 and a term of exercise of 5 years.

“*Warrant Shares*” means the shares of Common Stock issuable upon exercise of the Warrants.

## **ARTICLE II. PURCHASE AND SALE**

2.1 *Closing.* At the Closing, the Purchasers shall purchase, severally and not jointly, and the Company shall issue and sell, in the aggregate, up to \$5,000,000 of Common Stock and Warrants to purchase shares of Common Stock on the Closing Date. Each Purchaser shall purchase from the Company, and the Company shall issue and sell to each Purchaser, a number of Shares equal to such Purchaser’s Subscription Amount divided by the Per Share Purchase Price. Upon satisfaction of the conditions set forth in Section 2.2, the Closing shall occur at the offices of FW, or such other location as the parties shall mutually agree.

### 2.2 *Closing Conditions*

- (a) At the Closing (unless otherwise specified below) the Company shall deliver or cause to be delivered to each Purchaser the following:
  - (i) this Agreement duly executed by the Company;
  - (ii) within 3 Business Days of the Closing Date, a certificate evidencing a number of Shares equal to such Purchaser’s Subscription Amount divided by the Per Share Purchase Price, registered in the name of such Purchaser;
  - (iii) within 3 Business Days of the Closing Date, a Warrant, registered in the name of such Purchaser, pursuant to which such Purchaser shall have the right to acquire up to the number of shares of Common Stock equal to 50% of the Shares to be issued to such Purchaser at such Closing;
  - (iv) the Registration Rights Agreement duly executed by the Company; and
  - (v) a legal opinion of Company Counsel, substantially in the form of *Exhibit A* attached hereto.
- (b) At the Closing, each Purchaser shall deliver or cause to be delivered to the Company the following:
  - (i) this Agreement duly executed by such Purchaser;

(ii) such Purchaser's Subscription Amount as to such Closing by wire transfer to the account of the Company as provided to the Purchasers in writing prior to the Closing Date; and

(iii) the Registration Rights Agreement duly executed by such Purchaser.

(c) All representations and warranties of the other party contained herein shall remain true and correct as of the Closing Date and all covenants of the other party shall have been performed if due prior to such date.

(d) As of the Closing Date, there shall have been no Material Adverse Effect with respect to the Company since the date hereof.

(e) From the date hereof to the Closing Date, trading in the Common Stock shall not have been suspended by the Commission (except for any suspension of trading of limited duration agreed to by the Company, which suspension shall be terminated prior to the Closing), and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg Financial Markets shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities.

### **ARTICLE III. REPRESENTATIONS AND WARRANTIES**

3.1 *Representations and Warranties of the Company.* Except as set forth under the corresponding section of the Disclosure Schedules delivered concurrently herewith, the Company hereby makes the following representations and warranties as of the date hereof and as of the Closing Date to each Purchaser:

(a) *Subsidiaries.* The Company has no direct or indirect subsidiaries except as set forth in *Schedule 3.1(a)* (each, a "*Subsidiary*"). If the Company has no subsidiaries, any references to Subsidiaries in the Transaction Documents shall be disregarded. The Company owns, directly or indirectly, all of the capital stock of each Subsidiary free and clear of any lien, charge, security interest, encumbrance, right of first refusal or other restriction (collectively, "*Liens*"), and all the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights.

(b) *Organization and Qualification.* Each of the Company and the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization (as applicable), with the requisite corporate power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature

of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not have or reasonably be expected to result in (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business or financial condition of the Company and the Subsidiaries, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii), a "*Material Adverse Effect*").

(c) *Authorization; Enforcement.* The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by each of the Transaction Documents and otherwise to carry out its obligations thereunder. The execution and delivery of each of the Transaction Documents by the Company and the consummation by it of the transactions contemplated thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company in connection therewith. Each Transaction Document has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally and (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, and (iii) with respect to the indemnification provisions set forth in the Registration Rights Agreement, as limited by public policy.

(d) *No Conflicts.* The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary'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, 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 Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) 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 Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as would not have or reasonably be expected to result in a Material Adverse Effect.

(e) *Filings, Consents and Approvals.* The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than (a) the filing with the Commission of

the Registration Statement, the application(s) to each Trading Market for the listing of the Shares and Warrant Shares for trading thereon in the time and manner required thereby, and applicable Blue Sky filings and (b) such as have already been obtained or such exemptive filings as are required to be made under applicable securities laws.

(f) *Issuance of the Securities.* The Securities are duly authorized and, when issued and paid for in accordance with the Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement and the Warrants.

(g) *Capitalization.* The capitalization of the Company is as described in the Company's most recent periodic report filed with the Commission. The Company has not issued any capital stock since such filing other than pursuant to the exercise of employee stock options under the Company's stock option plans and pursuant to the conversion or exercise of Common Stock Equivalents outstanding on the date hereof. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as a result of the purchase and sale of the Securities and except for employee stock options under the Company's stock option plans or a plan approved by the Board of Directors of the Company, there are no outstanding options, warrants, script rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock, or securities or rights convertible or exchangeable into shares of Common Stock. The issue and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Purchasers) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under such securities.

(h) *SEC Reports; Financial Statements.* The Company has filed all reports required to be filed by it under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) of the Exchange Act, for the two years preceding the date hereof (or such shorter period as the Company was required by law to file such material) (the foregoing materials, including the exhibits thereto, being collectively referred to herein as the "SEC Reports" and, together with the Disclosure Schedules to this Agreement, the "Disclosure Materials") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the

rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis during the periods involved (“GAAP”), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(i) *Material Changes.* Since the date of the latest audited financial statements included within the SEC Reports, except as disclosed in the SEC Reports, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company’s financial statements pursuant to GAAP or required to be disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans. The Company does not have pending before the Commission any request for confidential treatment of information.

(j) *Litigation.* Except as disclosed in the SEC Reports, there is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an “Action”) which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Except as disclosed in the SEC Reports, neither the Company nor any Subsidiary, nor, to the knowledge of the Company, any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

(k) *Labor Relations.* No material labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company which could reasonably be expected to result in a Material Adverse Effect.

(l) *Compliance.* Except as disclosed in the SEC Reports, neither the Company nor any Subsidiary (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any order of any court, arbitrator or governmental body, or (iii) is or has been in violation of any statute, rule or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws applicable to its business, except in the case of clauses (i), (ii) and (iii) as would not have or reasonably be expected to result in a Material Adverse Effect.

(m) *Regulatory Permits.* The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits would not have or reasonably be expected to result in a Material Adverse Effect (“Material Permits”), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit.

(n) *Title to Assets.* The Company and the Subsidiaries have good and marketable title in fee simple to all real property owned by them that is material to the business of the Company and the Subsidiaries, taken as a whole, and good and marketable title in all personal property owned by them that is material to the business of the Company and the Subsidiaries, taken as a whole, in each case free and clear of all Liens, except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and the Subsidiaries are in material compliance.

(o) *Patents and Trademarks.* To the knowledge of the Company and each Subsidiary, the Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, copyrights, licenses and other similar rights that are material for use in connection with their respective businesses at present as described in the SEC Reports and which the failure to so have could have or reasonably be expected to result in a Material Adverse Effect (collectively, the “*Intellectual Property Rights*”). Neither the Company nor any Subsidiary has received a written notice that the Intellectual Property Rights used by the Company or any Subsidiary violates or infringes the rights of any Person. To the knowledge of the Company, all such Intellectual Property Rights are enforceable.

(p) *Insurance.* The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company and the Subsidiaries

are engaged. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(q) *Transactions With Affiliates and Employees.* Except as set forth in the SEC Reports, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner, in each case in excess of \$60,000 other than (a) for payment of salary or consulting fees for services rendered, (b) reimbursement for expenses incurred on behalf of the Company and (c) for other employee benefits, including stock option agreements under any stock option plan of the Company.

(r) *Internal Accounting Controls.* The Company and each of its subsidiaries maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the Company and designed such disclosure controls and procedures to ensure that material information relating to the Company, including its subsidiaries, is made known to the certifying officers by others within those entities, particularly during the period in which the Company's Form 10-K or 10-Q, as the case may be, is being prepared. The Company's certifying officers have evaluated the effectiveness of the Company's controls and procedures as of a date within 90 days prior to the filing date of the Form 10-Q for the quarter ended June 30, 2003 (such date, the "Evaluation Date"). The Company presented in its Form 10-Q for the quarter ended June 30, 2003 the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no significant changes in the Company's internal controls (as such term is defined in Item 307(b) of Regulation S-K under the Exchange Act) or, to the Company's knowledge, in other factors that could significantly affect the Company's internal controls.

(s) *Certain Fees.* No brokerage or finder's fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by this Agreement. The Purchasers shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a

type contemplated in this Section that may be due in connection with the transactions contemplated by this Agreement.

(t) *Private Placement.* Assuming the accuracy of the Purchasers representations and warranties set forth in Section 3.2, no registration under the Securities Act is required for the offer and sale of the Securities by the Company to the Purchasers as contemplated hereby. The issuance and sale of the Securities hereunder does not contravene the rules and regulations of the Trading Market.

(u) *Investment Company.* The Company is not, and is not an Affiliate of, an “investment company” within the meaning of the Investment Company Act of 1940, as amended.

(v) *Registration Rights.* No Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company.

(w) *Form S-3 Eligibility.* The Company is eligible to register the resale of its Common Stock by the Purchasers under Form S-3 promulgated under the Securities Act.

(x) *Listing and Maintenance Requirements.* The Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements.

(y) *Application of Takeover Protections.* The Company and its Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company’s Certificate of Incorporation (or similar charter documents) or the laws of its state of incorporation that is or could become applicable to the Purchasers as a result of the Purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation the Company’s issuance of the Securities and the Purchasers’ ownership of the Securities.

(z) *Disclosure.* The Company confirms that, neither the Company nor any other Person acting on its behalf has provided any of the Purchasers or their agents or counsel with any information that constitutes or might constitute material, non-public information. The Company understands and confirms that the Purchasers will rely on the foregoing representations and covenants in effecting transactions in securities of the Company. All disclosure provided to the Purchasers regarding the Company, its business and the transactions contemplated hereby, including the Disclosure Schedules to this Agreement, furnished by or on behalf of the Company are true and correct and do not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

(aa) *No Integrated Offering.* Neither the Company, nor any of its affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of the Securities Act or any applicable shareholder approval provisions, including, without limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated.

(bb) *Solvency.* Based on the financial condition of the Company as of the Closing Date, (i) the Company's fair saleable value of its assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature; (ii) the Company's assets do not constitute unreasonably small capital to carry on its business for the current fiscal year as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, and projected capital requirements and capital availability thereof, and including the anticipated proceeds of the sale of the Securities; and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its debt when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt).

3.2 *Representations and Warranties of the Purchasers.* Each Purchaser hereby, for itself and for no other Purchaser, represents and warrants as of the date hereof and as of the Closing Date to the Company as follows:

(a) *Organization; Authority.* Such Purchaser is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization with full right, corporate or partnership power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations thereunder. The execution, delivery and performance by such Purchaser of the transactions contemplated by this Agreement has been duly authorized by all necessary corporate or similar action on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms.

(b) *General Solicitation.* Such Purchaser is not purchasing the Securities as a result of any advertisement, article, notice or other communication regarding the Securities published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or any other general solicitation or general advertisement.

(c) *No Public Sale or Distribution.* Such Purchaser is (i) acquiring the Shares and (ii) upon exercise of the Warrants will acquire the Warrant Shares, for its own account and not with a view towards, or for resale in connection with, the public sale or distribution thereof, except pursuant to sales registered or exempted under the Securities Act; *provided, however*, that by making the representations herein, such Purchaser does not agree to hold any of the Securities for any minimum or other specific term and reserves the right to dispose of the Securities at any time in accordance with or pursuant to a registration statement or an exemption under the Securities Act. Such Purchaser is acquiring the Securities hereunder in the ordinary course of its business. Such Purchaser does not have any agreement or understanding, directly or indirectly, with any Person to distribute any of the Securities.

(d) *Accredited Investor Status.* Such Purchaser is an “accredited investor” as that term is defined in Rule 501(a) of Regulation D under the Securities Act. Such Purchaser is not required to be registered as a broker-dealer under Section 15 of the Exchange Act.

(e) *Reliance on Exemptions.* Such Purchaser understands that the Shares and Warrants are being offered and sold to it in reliance on specific exemptions from the registration requirements of United States federal and state securities laws and that the Company is relying in part upon the truth and accuracy of, and such Purchaser’s compliance with, the representations, warranties, agreements, acknowledgments and understandings of such Purchaser set forth herein in order to determine the availability of such exemptions and the eligibility of such Purchaser to acquire the Common Stock and Warrants.

(f) *Information.* Such Purchaser and its advisors, if any, have been furnished with all publicly available materials relating to the business, finances and operations of the Company and such other publicly available materials relating to the offer and sale of the Shares and Warrants as have been requested by such Purchaser. Such Purchaser and its advisors, if any, have been afforded the opportunity to ask questions of the Company. Neither such inquiries nor any other due diligence investigations conducted by such Purchaser or its advisors, if any, or its representatives shall modify, amend or affect such Purchaser’s right to rely on the Company’s representations and warranties contained herein. Such Purchaser understands that its investment in the Shares and Warrants involves a high degree of risk. Such Purchaser has sought such accounting, legal and tax advice as it has considered necessary to make an informed investment decision with respect to its acquisition of the Shares and Warrants.

(g) *No Governmental Review.* Such Purchaser understands that no United States federal or state agency or any other government or governmental agency has passed on or made any recommendation or endorsement of the Shares and Warrants or the fairness or suitability of the investment in the Shares and Warrants nor have such authorities passed upon or endorsed the merits of the offering of the Shares and Warrants.

(h) *Experience of Such Purchaser.* Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters, including investing in biotechnology companies, so as to be

capable of evaluating the merits and risks of the prospective investment in the Shares and Warrants, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Shares and Warrants and, at the present time, is able to afford a complete loss of such investment.

The Company acknowledges and agrees that each Purchaser does not make or has not made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in this Section 3.2.

**ARTICLE IV.  
OTHER AGREEMENTS OF THE PARTIES**

**4.1 *Transfer Restrictions.***

(a) The Securities may only be disposed of in compliance with state and federal securities laws. In connection with any transfer of Securities other than pursuant to an effective registration statement, to the Company, to an Affiliate of a Purchaser, in connection with a pledge as contemplated in Section 4.1(b), or in connection with a sale pursuant to Rule 144, the Company may require the transferor thereof to provide to the Company an opinion of counsel selected by the transferor, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of such transferred Securities under the Securities Act. As a condition of transfer, any such transferee shall agree in writing to be bound by the terms of this Agreement and shall have the rights of a Purchaser under this Agreement and the Registration Rights Agreement.

(b) The Purchasers agree to the imprinting, so long as is required by this Section 4.1(b), of a legend on any of the Securities in the following form:

THESE SECURITIES HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY. THESE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT.

The Company acknowledges and agrees that a Purchaser may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of the Securities to a financial institution that is an “accredited investor” as defined in Rule 501(a) under the Securities Act and, if required under the terms of such arrangement, such Purchaser may transfer pledged or secured Securities to the pledgees or secured parties. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith. Further, no notice shall be required of such pledge. At the appropriate Purchaser’s expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities, including the preparation and filing of any required prospectus supplement under Rule 424(b)(3) under the Securities Act or other applicable provision of the Securities Act to appropriately amend the list of Selling Stockholders thereunder.

(c) Certificates evidencing the Shares and Warrant Shares shall not contain any legend (including the legend set forth in Section 4.1(b)), (i) while a registration statement (including the Registration Statement) covering the resale of such security is effective under the Securities Act, or (ii) following any sale of such Shares or Warrant Shares pursuant to Rule 144, or (iii) if such Shares or Warrant Shares are eligible for sale under Rule 144(k), or (iv) if such legend is not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the Staff of the Commission). The Company shall cause its counsel to issue a legal opinion to the Company’s transfer agent promptly after the Effective Date if required by the Company’s transfer agent to effect the removal of the legend hereunder. If all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the resale of the Warrant Shares, such Warrant Shares shall be issued free of all legends. The Company agrees that following the Effective Date or at such time as such legend is no longer required under this Section 4.1(c), it will, no later than three Trading Days following the delivery by a Purchaser to the Company or the Company’s transfer agent of a certificate representing Shares or Warrant Shares, as the case may be, issued with a restrictive legend, deliver or cause to be delivered to such Purchaser a certificate representing such Securities that is free from all restrictive and other legends. The Company may not make any notation on its records or give instructions to any transfer agent of the Company that enlarge the restrictions on transfer set forth in this Section.

(d) In addition to such Purchaser’s other available remedies, the Company shall pay to a Purchaser, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Shares or Warrant Shares (based on the Closing Price of the Common Stock on the date such Securities are submitted to the Company’s transfer agent) subject to Section 4.1(c), \$10 per Trading Day (increasing to \$20 per Trading Day five (5) Trading Days after such damages have begun to accrue) for each Trading Day after such third Trading Day until such certificate is delivered. Nothing herein shall limit such Purchaser’s right to pursue actual damages for the Company’s failure to deliver certificates representing any Securities as required by the Transaction Documents, and such Purchaser shall have the right to pursue all remedies available to it at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief.

(e) Each Purchaser, severally and not jointly, agrees that the removal of the restrictive legend from certificates representing Securities as set forth in this Section 4.1 is predicated upon the Company's reliance that the Purchaser will sell any Securities pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or an exemption therefrom.

4.2 *Furnishing of Information.* As long as any Purchaser owns Securities, the Company covenants to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the Exchange Act. Upon the request of any such holder of Securities, the Company shall deliver to such holder a written certification of a duly authorized officer as to whether it has complied with the preceding sentence. As long as any Purchaser owns Securities, if the Company is not required to file reports pursuant to the Exchange Act, it will prepare and furnish to the Purchasers and make publicly available in accordance with Rule 144(c) such information as is required for the Purchasers to sell the Securities under Rule 144. The Company further covenants that it will take such further action as any holder of Securities may reasonably request, all to the extent required from time to time to enable such Person to sell such Securities without registration under the Securities Act within the limitation of the exemptions provided by Rule 144.

4.3 *Integration.* The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Securities in a manner that would require the registration under the Securities Act of the sale of the Securities to the Purchasers or that would be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any Trading Market.

4.4 *Participation in Future Financing.* From the date hereof until the 1-year anniversary of the Closing Date, the Company shall not effect a financing of its Common Stock or Common Stock Equivalents (a "*Subsequent Financing*") unless (i) the Company delivers to each of the Purchasers hereunder a written notice at least 10 Trading Days prior to the closing of such Subsequent Financing (the "*Subsequent Financing Notice*") of its intention to effect such Subsequent Financing, which Subsequent Financing Notice shall describe in reasonable detail the proposed terms of such Subsequent Financing, the amount of proceeds intended to be raised thereunder, the Person with whom such Subsequent Financing is proposed to be effected, and attached to which shall be a term sheet or similar document relating thereto and (ii) such Purchaser shall not have notified the Company by 6:30 p.m. (New York City time) on the fifth (5<sup>th</sup>) Trading Day after its receipt of the Subsequent Financing Notice of its willingness to provide (or to cause its designee to provide), subject to completion of mutually acceptable documentation, up to its Pro-Rata Portion (as defined below) of 33% of proceeds to be raised in such Subsequent Financing (the "*Subsequent Financing Percentage*") to the Company on the same terms set forth in the Subsequent Financing Notice. If one or more Purchasers shall fail to so notify the Company of their willingness to participate in their Pro-Rata Portion of the Subsequent Financing Percentage, the Company may effect the remaining portion of such Subsequent Financing on the terms and to the Persons set forth in the Subsequent Financing Notice; provided that the Company must provide the Purchasers with a second Subsequent Financing Notice, and the Purchasers will again have the right of first refusal set forth above in this Section 4.4, if the Subsequent Financing subject to the initial Subsequent Financing Notice is

not consummated for any reason on the terms set forth in such Subsequent Financing Notice within 60 Trading Days after the date of the initial Subsequent Financing Notice with the Person identified in the Subsequent Financing Notice. “*Pro Rata Portion*” is the ratio of (x) such Purchaser’s Subscription Amount and (y) the aggregate sum of all of the Subscription Amounts. If any Purchaser no longer holds any Shares, then the Pro Rata Portions shall be re-allocated among the remaining Purchasers. Notwithstanding anything to the contrary herein, this Section 4.4 shall not apply to the following: (a) the granting of options to employees, officers and directors of the Company pursuant to any stock option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, or (b) the exercise of any security issued by the Company in connection with the offer and sale of the Company’s securities pursuant to this Agreement, or (c) the exercise of or conversion of any convertible securities, options or warrants issued and outstanding on the date hereof, provided such securities have not been amended since the date hereof, or (d) acquisitions or strategic investments, the primary purpose of which is not to raise capital.

4.5 *Securities Laws Disclosure; Publicity.* The Company shall, by 8:30 a.m. Eastern time on the Business Day following the Closing Date, file a Current Report on Form 8-K or issue a press release, disclosing the transactions contemplated hereby and make such other filings and notices in the manner and time required by the Commission. The Company and each Purchaser shall consult with each other in issuing any press releases with respect to the transactions contemplated hereby, and neither the Company nor any Purchaser shall issue any such press release or otherwise make any such public statement without the prior consent of the Company, with respect to any press release of any Purchaser, or without the prior consent of each Purchaser, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except (i) as required by federal securities law in connection with the registration statement contemplated by the Registration Rights Agreement and (ii) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchasers with prior notice of such disclosure permitted under subclause (i) or (ii).

4.6 *Shareholders Rights Plan.* No claim will be made or enforced by the Company or any other Person that any Purchaser is an “Acquiring Person” under any shareholders rights plan or similar plan or arrangement in effect or hereafter adopted by the Company, or that any Purchaser could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities under the Transaction Documents or under any other agreement between the Company and the Purchasers.

4.7 *Non-Public Information.* The Company covenants and agrees that neither it nor any other Person acting on its behalf will provide any Purchaser or its agents or counsel with any information that the Company believes constitutes material non-public information, unless prior thereto such Purchaser shall have executed a written agreement regarding the confidentiality and use of such information. The Company understands and confirms that each Purchaser shall be relying on the foregoing representations in effecting transactions in securities of the Company.

4.8 *Use of Proceeds.* Except as set forth on Schedule 4.8 attached hereto, the Company shall use the net proceeds from the sale of the Securities hereunder for working capital purposes and not for the satisfaction of any portion of the Company's debt (other than payment of trade payables in the ordinary course of the Company's business and prior practices), to redeem any Company equity or equity-equivalent securities or to settle any outstanding litigation.

4.9 *Reimbursement.* If any Purchaser becomes involved in any capacity in any Proceeding by or against any Person who is a stockholder of the Company (except as a result of sales, pledges, margin sales and similar transactions by such Purchaser to or with any current stockholder), solely as a result of such Purchaser's acquisition of the Securities under this Agreement, the Company will reimburse such Purchaser for its reasonable legal and other expenses (including the cost of any investigation preparation and travel in connection therewith) incurred in connection therewith, as such expenses are incurred. The reimbursement obligations of the Company under this paragraph shall be in addition to any liability which the Company may otherwise have, shall extend upon the same terms and conditions to any Affiliates of the Purchasers who are actually named in such action, proceeding or investigation, and partners, directors, agents, employees and controlling persons (if any), as the case may be, of the Purchasers and any such Affiliate, and shall be binding upon and inure to the benefit of any successors, assigns, heirs and personal representatives of the Company, the Purchasers and any such Affiliate and any such Person. The Company also agrees that neither the Purchasers nor any such Affiliates, partners, directors, agents, employees or controlling persons shall have any liability to the Company or any Person asserting claims on behalf of or in right of the Company solely as a result of acquiring the Securities under this Agreement.

4.10 *Indemnification of Purchasers.* The Company will indemnify and hold the Purchasers and their directors, officers, shareholders, partners, employees and agents (each, a "Purchaser Party") harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation that any such Purchaser Party may suffer or incur as a result of or relating to: (a) any misrepresentation, breach or inaccuracy, or any allegation by a third party that, if true, would constitute a breach or inaccuracy, of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents; or (b) any cause of action, suit or claim brought or made against such Purchaser Party and arising solely out of or solely resulting from the execution, delivery, performance or enforcement of this Agreement or any of the other Transaction Documents and without causation by any other activity, obligation, condition or liability pertaining to such Purchaser. The Company will reimburse such Purchaser for its reasonable legal and other expenses (including the cost of any investigation, preparation and travel in connection therewith) incurred in connection therewith, as such expenses are incurred.

4.11 *Reservation of Common Stock.* As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue Shares pursuant to this Agreement and Warrant Shares pursuant to the Warrants.

4.12 *Listing of Common Stock.* The Company hereby agrees to use commercially reasonable efforts to maintain the listing of the Common Stock on the Trading Market, and as soon as reasonably practicable following the Closing (but not later than the earlier of the Effective Date and the first anniversary of the Closing Date) to list the applicable Shares and Warrant Shares on the Trading Market. The Company further agrees, if the Company applies to have the Common Stock traded on any other Trading Market, it will include in such application the Shares and the Warrant Shares, and will take such other action as is necessary or desirable in the opinion of the Purchasers to cause the Shares and Warrant Shares to be listed on such other Trading Market as promptly as possible. The Company will take all action reasonably necessary to continue the listing and trading of its Common Stock on a Trading Market and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market.

4.13 *Future Financings.* From the date hereof until 10 Trading Days after the Effective Date, other than as contemplated by this Agreement, neither the Company nor any Subsidiary shall issue or sell any Common Stock or Common Stock Equivalents. Notwithstanding anything herein to the contrary, the 10 Trading Day period set forth in this Section 4.13 shall be extended for the number of Trading Days during such period in which (y) trading in the Common Stock is suspended by any Trading Market, or (z) following the Effective Date, the Registration Statement is not effective or the prospectus included in the Registration Statement may not be used by the Purchasers for the resale of the Shares and the Warrant Shares. Notwithstanding anything to the contrary herein, this Section 4.13 shall not apply to the following (a) the granting of options to employees, officers and directors of the Company pursuant to any stock option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, or (b) the exercise of any security issued by the Company in connection with the offer and sale of the Company's securities pursuant to this Agreement, or (c) the exercise of or conversion of any convertible securities, options or warrants issued and outstanding on the date hereof, provided such securities have not been amended since the date hereof, or (d) acquisitions or strategic investments, the primary purpose of which is not to raise capital.

4.14 *Equal Treatment of Purchasers.* No consideration shall be offered or paid to any person to amend or consent to a waiver or modification of any provision of any of the Transaction Documents unless the same consideration is also offered to all of the parties to the Transaction Documents. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser, and is intended to treat for the Company the Debenture holders as a class and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of Securities or otherwise.

4.15 *Compliance with the Securities Laws.* Such Purchaser agrees to comply with the requirements of Regulation M, if applicable, with respect to the sale of the Shares and Warrant Shares by the Purchaser. Such Purchaser hereby confirms its understanding that it may not cover short sales made prior to the Effective Date with Shares or Warrant Shares registered for resale on the Registration Statement. The Purchaser acknowledges that it does not intend to cover short positions made by it before the Effective Date with Shares or Warrant Shares held by it and registered on the Registration Statement.

**ARTICLE V.  
MISCELLANEOUS**

5.1 *Fees and Expenses.* Each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all stamp and other taxes and duties levied in connection with the sale of the Securities.

5.2 *Entire Agreement.* The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

5.4 *Notices.* Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number specified on the signature pages attached hereto prior to 6:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number on the signature pages attached hereto on a day that is not a Trading Day or later than 6:30 p.m. (New York City time) on any Trading Day, (c) the Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto.

5.5 *Amendments; Waivers.* No provision of this Agreement may be waived or amended except in a written instrument signed, in the case of an amendment, by the Company and Purchasers of at least 75% of the Shares and Warrant Shares (on an exercised basis) then held by the Purchasers or, in the case of a waiver, by the party against whom enforcement of any such waiver is sought. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right.

5.6 *Construction.* The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

5.7 *Successors and Assigns.* This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of each Purchaser. Any Purchaser may assign any or all of its rights under this Agreement to any

Person, provided such transferee agrees in writing to be bound, with respect to the transferred Securities, by the provisions hereof that apply to the "Purchasers".

5.8 *No Third-Party Beneficiaries.* This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Sections 4.9 and 4.10.

5.9 *Governing Law.* All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, 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 this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, New York 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, that such suit, action or proceeding is improper. Each party hereto hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by delivering a copy thereof via overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement 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 (including its affiliates, agents, officers, directors and employees) 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 Agreement or the transactions contemplated hereby. If either party shall commence an action or proceeding to enforce any provisions of a Transaction Document, 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.

5.10 *Survival.* The representations, warranties, agreements and covenants contained herein shall survive the Closing and delivery of the Shares.

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

5.12 *Severability.* If any provision of this Agreement is held to be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Agreement shall not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision that is a reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Agreement.

5.13 *Replacement of Securities.* If any certificate or instrument evidencing any Securities is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof, or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction and customary and reasonable indemnity, if requested. The applicants for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs associated with the issuance of such replacement Securities.

5.14 *Remedies.* In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchasers and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations described in the foregoing sentence and hereby agrees to waive in any action for specific performance of any such obligation the defense that a remedy at law would be adequate.

5.15 *Payment Set Aside.* To the extent that the Company makes a payment or payments to any Purchaser pursuant to any Transaction Document or a Purchaser enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to the Company, a trustee, receiver or any other person under any law (including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied shall, to the extent permissible under applicable law, be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

5.16 *Independent Nature of Purchasers' Obligations and Rights.* The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance of the obligations of any other Purchaser under any Transaction Document. Nothing contained herein or in any Transaction Document, and no action taken by any Purchaser pursuant thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Document. Each Purchaser shall be entitled to independently protect and enforce its rights, including without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in their review and negotiation of the Transaction Documents. For

reasons of administrative convenience only, Purchasers and their respective counsel have chosen to communicate with the Company through FW. FW does not represent any of the Purchasers in this transaction but only the placement agent, Rodman & Renshaw, Inc. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by the Purchasers.

*(Signature Page Follows)*

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

**PRO-PHARMACEUTICALS, INC.**

By: /s/ DAVID PLATT

Name: David Platt

Title: Chief Executive Officer

Address for Notice:

189 Wells Avenue

Newton, Massachusetts 02459

Attn:

Tel: (617) 559 0033

Fax: (617) 928-3450

With copy to (which shall not constitute notice):

Perkins, Smith & Cohen, LLP

One Beacon Street, 30<sup>th</sup> Floor

Boston, Massachusetts 02108

Attn: Jonathan C. Guest, Esq.

Tel: (617) 854-4000

Fax: (617) 854-4040

[SIGNATURE PAGE CONTINUES]

**BRISTOL INVESTMENT FUND, LTD.**

By: /s/ PAUL KESSLER

Name: Paul Kessler

Title: Director

Subscription Amount: \$150,000

Shares: 42,857

Warrant Shares: 21,429

Address for Notice:

c/o Bristol Capital Advisors, LLC

6363 Sunset Boulevard, Fifth Floor

Hollywood, CA 90029

Attn: Amy Wang, Esq.

Fax: (323) 769-2493

Tel: (323) 468-8307

E-mail: amy@bristolcompanies.net

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**OMICRON MASTER TRUST**

By: Omicron Capital L.P., as Subadvisor  
By: Omicron Capital Inc., its General Partner

By: /s/ OLIVIER MORALI  
Name: Olivier Morali  
Title: President

Address for Notice:  
c/o Omicron Capital L.P.  
810 Seventh Avenue, 39<sup>th</sup> Fl.  
New York, New York 10019  
Attn: Brian Daly  
Fax: (212) 803-5269

Subscription Amount: \$200,000.00  
Shares: 57,143  
Warrant Shares: 28,572

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**THE TAIL WIND FUND LIMITED**

By: Tail Wind Advisory & Management Ltd., as Investment Manager

By: /s/ DAVID CROOK

Name: David Crook

Title: Chief Executive Officer

Address for Notice:

c/o: Tail Wind Advisory & Management Ltd.

1<sup>st</sup> Floor, No. 1 Regent Street

London, SW1Y 4NS, UK

Attn: David Crook

Chief Executive Officer

Fax: +44 20 7468 7657

With a copy to Fund's Counsel:

Peter J. Weisman, P.C.

335 Madison Avenue

New York, New York 10017

USA

Tel: (212) 418-4792

Fax: (212) 317-8855

Subscription Amount: \$250,000.00

Shares: 71,429

Warrant Shares: 35,715

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**CRANSHIRE CAPITAL L.P.**

By: Downsiren Capital, Inc., General Partner

By: /s/ MITCHELL P. KOPIN

Name: Mitchell P. Kopin

Title: President

Address for Notice:

Attn: Mitchell Kopin

666 Dundee Road, Suite 1901

Northbrook, IL 60062

Fax: (847) 562-9031

Subscription Amount: \$499,999.50

Shares: 142,857

Warrant Shares: 71,429

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**CRESCENT INTERNATIONAL LTD.**

By: /s/ MEL CRAW

Name: Mel Crow

Title: Authorized Signatory

By: /s/ MAXI BREZZI

Name: Maxi Brezzi

Title: Authorized Signatory

Address for Notice:

c/o GreenLight (Switzerland) (SA)

84, Avenue Louis-Casai

CH 1216 Cointrin, Geneva

Switzerland

Attn: Mel Crow / Maxi Brezzi

Tel: + 41 22 791 7170 / +41 22 791 7256

Fax: +41 22 929 5394

Subscription Amount: \$301,000.00

Shares: 86,000

Warrant Shares: 43,000

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**ALPHA CAPITAL AG**

By: /s/ KONRAD ACKERMANN  
Name: Konrad Ackermann  
Title: Director

Address for Notice:  
Lettstrasse 32  
Furstentum 9490  
Vaduz, Liechtenstein  
Fax: 011-423 232 3196  
Attn: Director

Subscription Amount: \$400,000.00  
Shares: 114,286  
Warrant Shares: 57,143

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**GRYPHON MASTER FUND, LP**

By: /s/ RYAN R. WOLTERS

Name: Ryan R. Wolters

Title: Authorized Agent

Address for Notice:

500 Crescent Court, Suite #270

Dallas, Texas 75201

Attn: Ryan Wolters

Tel: (214) 871-6783

Fax: (214) 871-6909

Subscription Amount: \$499,999.50

Shares: 142,857

Warrant Shares: 71,429

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**DELTA OPPORTUNITY FUND, LTD**

By: Diaz & Altschul Advisors, LLC

By: /s/ CHRISTOPHER S. MOONEY

Name: Christopher S. Mooney

Title: Chief Financial Officer

Address for Notice:

Diaz & Altschul Advisors, LLC  
950 Third Avenue, 16<sup>th</sup> Floor  
New York, New York 10022

Subscription Amount: \$200,000

Shares: 57143

Warrant Shares: 28,572

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**SF CAPITAL PARTNERS LTD.**

By: /s/ BRIAN H. DAVIDSON

Name: Brian H. Davidson

Title: Authorized Signatory

Address for Notice:

3600 South Lake Drive

St. Francis, Wisconsin 53235

Fax: (414) 294-7700

Subscription Amount: \$499,996.00

Shares: 142,856

Warrant Shares: 71,429

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**PLATINUM PARTNERS VALUE ARBITRAGE FUND LP**

By: /s/ MARK NORDLICHT

Name: Mark Nordlicht

Title: General Partner

Address for Notice:

c/o Platinum Partners Value Arbitrage Fund LP

152 West 57<sup>th</sup> Street

New York, New York 10271

Tel: (212) 581-0500

Fax: (212) 581-7256

Attn: Frank Giorgio, CFO

e-mail: fgiorgio@platinumlp.com

Subscription Amount: \$250,000.00

Shares: 71,429

Warrant Shares: 35,715

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**AIG DKR SOUNDSHORE PRIVATE INVESTORS HOLDING FUND LTD.**

By: /s/ TODD SAUMLER

Name: Todd Saumler

Title: Authorized Signatory

Address for Notice:

AIG DKR SoundShore Private Investors Holding Fund Ltd.

c/o DKR Capital Partners L.P.

1281 East Main Street

Stanford, CT 06902

Attn: General Counsel

Attn:

Subscription Amount: \$100,000

Shares: 66,667

Warrant Shares: 66,667

[PURCHASERS' SIGNATURE PAGES FOLLOW]

**PORTSIDE GROWTH AND OPPORTUNITY FUND**

By: /s/ JEFFREY SMITH

Name: Jeffrey Smith

Title: Authorized Person

Address for Notice:

c/o Ramius Capital Group, LLC

666 Third Avenue, 26<sup>th</sup> Floor

New York, New York 10017

Attn: Jeffrey Smith

Tel:

Fax:

Subscription Amount: \$250,000

Shares: 71,429

Warrant Shares: 35,715

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**LANGLEY PARTNERS, L.P.**

By: Langley Capital, LLC, General Partner

By: /s/ JEFFREY THORP

Name: Jeffrey Thorp

Title: Managing Member

Address for Notice:

Langley Capital, LLC

535 Madison Avenue, 7<sup>th</sup> Floor

New York, New York 10022

Tel: (212) 850-7528

Fax: (212) 850-7589

Attn: Jeffrey Thorp

jt@lcap.com

Subscription Amount: \$250,005.00

Shares: 71,430

Warrant Shares: 35,715

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**OTAPE INVESTMENTS LLC**

By: /s/ RICHARD M. COYNE

Name: Richard M. Coyne

Title: General Counsel

Address for Notice:

Otape Investments LLC

One Manhattanville Rd.

Purchase, New York 10577

Subscription Amount: \$300,000.00

Shares: 85,714

Warrant Shares: 42,857

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**ELLIS INTERNATIONAL LTD**

By: /s/ JOHN D. CABOT

Name: John D. Cabot

Title: Officer

Address for Notice:

53<sup>rd</sup> Street, Urbanization Obarrio

Swiss Tower, 16<sup>th</sup> Floor, Panama

Republic of Panama

Tel: 917-748-3501

Subscription Amount: \$100,000.00

Shares: 28,571

Warrant Shares: 14,286

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**GAMMA OPPORTUNITY CAPITAL PARTNERS, LP**

By: /s/ CHRISTOPHER RESSMAN

Name: Christopher Ressman

Title: Managing Partner

Address for Notice:

British Colonial Centre of Commerce

One Bay Street, Suite 401

Nassau (NP), The Bahamas

Subscription Amount: \$100,000.00

Shares: 28,571

Warrant Shares: 14,286

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**TCMP3**

By: /s/ STEVEN E. SLAWSON

Name: Steven Slawson

Title:

Address for Notice:

TCMP3

c/o Titan Capital Mgmt.

7 Century Drive, Suite 201

Parsippany, New Jersey 07054

Subscription Amount: \$150,000.00

Shares: 42,857

Warrant Shares: 21,429

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**BARUCHA LLC**

By: /s/ EZRA BIRNBAUM

Name: Ezra Birnbaum

Title: Trustee

Address for Notice:

c/o Barucha LLC

25 Rosaling Place

Lawrence, New York 11559

Tel: (516) 371-4913

Fax: (781) 435-7164

Attn: Ezra Birnbaum

Subscription Amount: \$100,000.00

Shares: 28,571

Warrant Shares: 14,286

## REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "*Agreement*") is made and entered into as of October 2, 2003, by and among Pro-Pharmaceuticals, Inc., a Nevada corporation (the "*Company*"), and the investors signatory hereto (each a "*Purchaser*" and collectively, the "*Purchasers*").

This Agreement is made pursuant to the Securities Purchase Agreement, dated as of the date hereof among the Company and the Purchasers (the "*Purchase Agreement*").

The Company and the Purchasers hereby agree as follows:

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. As used in this Agreement, the following terms shall have the following meanings:

"*Effectiveness Date*" means, with respect to the Registration Statement required to be filed hereunder, the earlier of (a) the 70th calendar day following the Closing Date (100<sup>th</sup> calendar day in the event of a full review by the Commission) and (b) the fifth Trading Day following the date on which the Company is notified by the Commission that the Registration Statement will not be reviewed or is no longer subject to further review and comments.

"*Effectiveness Period*" shall have the meaning set forth in Section 2(a).

"*Filing Date*" means, with respect to the Registration Statement required to be filed hereunder, the 20<sup>th</sup> calendar day following the Closing Date.

"*Holder*" or "*Holders*" means the holder or holders, as the case may be, from time to time of Registrable Securities.

"*Indemnified Party*" shall have the meaning set forth in Section 5(c).

"*Indemnifying Party*" shall have the meaning set forth in Section 5(c).

"*Losses*" shall have the meaning set forth in Section 5(a).

"*Proceeding*" means an action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened.

"*Prospectus*" means the prospectus included in the Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated under the Securities Act), as amended or supplemented by

any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by the Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

“*Registrable Securities*” means the Shares, the Warrant Shares and the shares of Common Stock issuable upon exercise of the warrant issued to Rodman & Renshaw, Inc. in connection with the transactions contemplated by the Purchase Agreement, together with any shares of Common Stock issued or issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect to the foregoing or in connection with any anti-dilution provisions in the Warrant.

“*Registration Statement*” means the registration statements required to be filed hereunder, including (in each case) the Prospectus, amendments and supplements to the registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in the registration statement.

“*Rule 415*” means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

“*Rule 424*” means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

“*Securities Act*” means the Securities Act of 1933, as amended.

## 2. *Registration.*

(a) On or prior to the Filing Date, the Company shall prepare and file with the Commission the Registration Statement covering the resale of all of the Registrable Securities for an offering to be made on a continuous basis pursuant to Rule 415. The Registration Statement required hereunder shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case the Registration Statement shall be on another appropriate form in accordance herewith). The Registration Statement required hereunder shall contain (except if otherwise directed by the Holders) the “*Plan of Distribution*” attached hereto as *Annex A*. The Company shall cause the Registration Statement to become effective and remain effective as provided herein. The Company shall use its commercially reasonable efforts to cause the Registration Statement to be declared effective under the Securities Act as promptly as possible after the filing thereof, but in any event not later than the Effectiveness Date, and shall use its commercially reasonable efforts to keep the Registration Statement continuously effective under the Securities Act until the date which is two years after the Closing Date or such later date when all Registrable

Securities covered by the Registration Statement (a) have been sold pursuant to the Registration Statement or an exemption from the registration requirements of the Securities Act or (b) may be sold without volume restrictions pursuant to Rule 144(k) as determined by the counsel to the Company pursuant to a written opinion letter to such effect, addressed and acceptable to the Company's transfer agent and the affected Holders (the "*Effectiveness Period*").

(b) If: (i) a Registration Statement is not filed on or prior to its Filing Date (if the Company files a Registration Statement without affording the Holder the opportunity to review and comment on the same as required by Section 3(a), the Company shall not be deemed to have satisfied this clause (i)); *provided, however*, that if a Holder fails to provide the Company with any information that is required to be provided in the Registration Statement with respect to such Holder pursuant to Section 3(k), then the Filing Date shall be extended until two Trading Days following the date of receipt by the Company of such required information, or (ii) the Company fails to file with the Commission a request for acceleration in accordance with Rule 461 promulgated under the Securities Act, within five Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that a Registration Statement will not be "reviewed," or not subject to further review, or (iii) prior to the date when such Registration Statement is first declared effective by the Commission, the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission in respect of such Registration Statement within ten Trading Days after the receipt of comments by or notice from the Commission that such amendment is required in order for a Registration Statement to be declared effective, or (iv) a Registration Statement filed or required to be filed hereunder is not declared effective by the Commission on or before the Effectiveness Date, or (v) after a Registration Statement is first declared effective by the Commission, it ceases for any reason to remain continuously effective as to all Registrable Securities for which it is required to be effective, or the Holders are not permitted to utilize the Prospectus therein to resell such Registrable Securities, for in any such cases ten Trading Days (which need not be consecutive days) in the aggregate during any 12-month period (any such failure or breach being referred to as an "*Event*," and for purposes of clause (i) or (iv) the date on which such Event occurs, or for purposes of clause (ii) the date on which such five Trading Day period is exceeded, or for purposes of clauses (iii) the date which such ten Trading Day period is exceeded, or for purposes of clause (v) the date on which such ten Trading Day period is exceeded being referred to as "*Event Date*"), then in addition to any other rights the Holders may have hereunder or under applicable law: (x) on each such Event Date the Company shall pay to each Holder an amount in cash, as liquidated damages and not as a penalty, equal to 2% of the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement for any Registrable Securities then held by such Holder; and (y) on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as liquidated damages and not as a penalty, equal to 2% of the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement for any Registrable Securities then held by such Holder. If the Company fails to pay any liquidated damages pursuant to this Section in full within seven days after the date payable, the Company will pay interest thereon at a

rate of 18% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Holder, accruing daily from the date such liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The liquidated damages pursuant to the terms hereof shall apply on a pro-rata basis for any portion of a month prior to the cure of an Event.

(c) If during the Effectiveness Period, the number of Registrable Securities at any time exceeds 100% of the number of shares of Common Stock then registered in a Registration Statement, then the Company shall file as soon as reasonably practicable but in any case prior to the 30<sup>th</sup> day following the date such number is exceeded, an additional Registration Statement covering the resale of by the Holders of not less than all of such Registrable Securities and the Company shall use commercially reasonable efforts to cause such Registration Statement to be declared effective as soon as reasonably practicable thereafter.

### 3. *Registration Procedures*

In connection with the Company's registration obligations hereunder, the Company shall:

(a) Not less than three Trading Days prior to the filing of the Registration Statement or any related Prospectus or any amendment or supplement thereto, the Company shall, (i) furnish to the Holders copies of all such documents proposed to be filed (including documents incorporated or deemed incorporated by reference to the extent requested by such Person) which documents will be subject to the prompt review of such Holders, and (ii) cause its officers and directors, counsel and independent certified public accountants to respond to such inquiries as shall be necessary, in the reasonable opinion of respective counsel to conduct a reasonable investigation within the meaning of the Securities Act. The Company shall not file the Registration Statement or any such Prospectus or any amendments or supplements thereto to which the Holders of a majority of the Registrable Securities shall reasonably object in good faith.

(b) (i) Prepare and file with the Commission such amendments, including post-effective amendments, to the Registration Statement and the Prospectus used in connection therewith as may be necessary to keep the Registration Statement continuously effective as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities; (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement, and as so supplemented or amended to be filed pursuant to Rule 424; (iii) respond as promptly as reasonably possible, and in any event within ten Trading Days, to any comments received from the Commission with respect to the Registration Statement or any amendment thereto and, as promptly as reasonably possible, upon request, provide the Holders true and complete copies of all correspondence from and to the Commission relating to the Registration Statement; and (iv) comply in all material respects with the provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by the Registration Statement during the applicable

period in accordance with the intended methods of disposition by the Holders thereof set forth in the Registration Statement as so amended or in such Prospectus as so supplemented.

(c) Notify the Holders of Registrable Securities to be sold as promptly as reasonably possible (and, in the case of (i)(A) below, not less than one Trading Day prior to such filing) and (if requested by any such Person) confirm such notice in writing promptly following the day (i)(A) when a Prospectus or any Prospectus supplement or post-effective amendment to the Registration Statement is proposed to be filed; (B) when the Commission notifies the Company whether there will be a “review” of the Registration Statement and whenever the Commission comments in writing on the Registration Statement (the Company shall upon request provide true and complete copies thereof and all written responses thereto to each of the Holders); and (C) with respect to the Registration Statement or any post-effective amendment, when the same has become effective; (ii) of any request by the Commission or any other Federal or state governmental authority during the period of effectiveness of the Registration Statement for amendments or supplements to the Registration Statement or Prospectus or for additional information; (iii) of the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose; (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose; and (v) of the occurrence of any event or passage of time that makes the financial statements included in the Registration Statement ineligible for inclusion therein or any statement made in the Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to the Registration Statement, Prospectus or other documents so that, in the case of the Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

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

(e) Furnish to each Holder, without charge, at least one conformed copy of the Registration Statement and each amendment thereto, including financial statements and schedules, all documents incorporated or deemed to be incorporated therein by reference to the extent requested by such Person, and all exhibits to the extent requested by such Person (including those incorporated by reference) promptly after the filing of such documents with the Commission.

(f) Promptly deliver to each Holder, without charge, as many copies of the Prospectus or Prospectuses (including each form of prospectus) and each amendment or supplement thereto as such Persons may reasonably request in connection with resales by the Holder of Registrable Securities. The Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto, except after the giving on any notice pursuant to Section 3(c).

(g) Prior to any resale of Registrable Securities by a Holder, use its commercially reasonable efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the Registration or qualification) of such Registrable Securities for the resale by the Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep each the Registration or qualification (or exemption therefrom) effective during the Effectiveness Period and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by the Registration Statement; *provided*, that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(h) If requested by the Holders, cooperate with the Holders to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be delivered to a transferee pursuant to the Registration Statement, which certificates shall be free, to the extent permitted by the Purchase Agreement, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holders may request.

(i) Upon the occurrence of any event contemplated by Section 3(c)(v), as promptly as reasonably possible, prepare a supplement or amendment, including a post-effective amendment, to the Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither the Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(j) Comply in all material respects with all applicable rules and regulations of the Commission.

(k) The Company may require each selling Holder to furnish to the Company a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and, if required by the Commission, the person thereof that has voting and dispositive control over the Shares.

4. *Registration Expenses.* All fees and expenses incident to the performance of or compliance with this Agreement by the Company shall be borne by the Company whether or not any Registrable Securities are sold pursuant to the Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses (A) with respect to filings required to be made with the Trading Market on which the Common Stock is then listed for trading, and (B) in compliance with applicable state securities or Blue Sky laws), (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities and of printing prospectuses if the printing of prospectuses is reasonably requested by the holders of a majority of the Registrable Securities included in the Registration Statement), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, and (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder.

5. *Indemnification*

(a) *Indemnification by the Company.* The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Holder, the officers, directors, agents and employees of each of them, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, agents and employees of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, reasonable attorneys' fees) and expenses (collectively, "Losses"), as incurred, to the extent arising out of or relating to any untrue or alleged untrue statement of a material fact contained in the Registration Statement, any Prospectus or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or form of prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, except to the extent, but only to the extent, that (1) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was made available for review by such Holder and expressly approved in writing by such Holder expressly for use in the Registration Statement, such Prospectus or such form of Prospectus or in any amendment or supplement thereto (it being understood that the Holder has approved Annex A hereto for this purpose) or (2) in the case of an occurrence of an event of the type specified in Section 3(c)(ii)-(v), the use by such Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or

defective and prior to the receipt by such Holder of the Advice contemplated in Section 6(d). The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding of which the Company is aware in connection with the transactions contemplated by this Agreement.

(b) *Indemnification by Holders.* Each Holder shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, to the extent arising out of or based upon: (x) such Holder's failure to comply with the prospectus delivery requirements of the Securities Act or (y) any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or any form of prospectus, or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading (i) to the extent, but only to the extent, that such untrue statement or omission is contained in any information so furnished in writing by such Holder to the Company specifically for inclusion in the Registration Statement or such Prospectus or (ii) to the extent that (1) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was made available for review by such Holder and expressly approved in writing by such Holder expressly for use in the Registration Statement (it being understood that the Holder has approved Annex A hereto for this purpose), such Prospectus or such form of Prospectus or in any amendment or supplement thereto or (2) in the case of an occurrence of an event of the type specified in Section 3(c)(ii)-(v), the use by such Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated in Section 6(d). In no event shall the liability of any selling Holder hereunder be greater in amount than the dollar amount of the net proceeds received by such Holder upon the sale of the Registrable Securities giving rise to such indemnification obligation.

(c) *Conduct of Indemnification Proceedings.* If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "Indemnified Party"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "Indemnifying Party") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all fees and expenses incurred in connection with defense thereof; provided, that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have prejudiced the Indemnifying Party.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses; (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding; or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and such Indemnified Party shall have been advised by counsel that a conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable fees and expenses of one separate counsel shall be at the expense of the Indemnifying Party). The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

All reasonable fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within ten Trading Days of written notice thereof to the Indemnifying Party; *provided*, that the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is not entitled to indemnification hereunder, determined based upon the relative faults of the parties.

(d) *Contribution.* If a claim for indemnification under Section 5(a) or 5(b) is unavailable to an Indemnified Party (by reason of public policy or otherwise), then each Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Losses, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in Section 5(c), any reasonable attorneys' or other reasonable fees or expenses incurred by such party in connection with any Proceeding to the extent such

party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 5(d), no Holder shall be required to contribute, in the aggregate, any amount in excess of the amount by which the proceeds actually received by such Holder from the sale of the Registrable Securities subject to the Proceeding exceeds the amount of any damages that such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission, except in the case of fraud by such Holder. The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

#### 6. *Miscellaneous*

(a) *Remedies.* In the event of a breach by the Company or by a Holder, of any of their obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, will be entitled to specific performance of its rights under this Agreement. The Company and each Holder agree that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall waive the defense that a remedy at law would be adequate.

(b) *No Piggyback on Registrations.* Neither the Company nor any of its security holders (other than the Holders in such capacity pursuant hereto) may include securities of the Company in a Registration Statement other than the Registrable Securities, and the Company shall not after the date hereof enter into any agreement providing any such right to any of its security holders. Except as set forth in the SEC Reports, no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company. The Company shall not file any other registration statement until after the Effective Date, except as may be filed on any Form S-8.

(c) *Compliance.* Each Holder covenants and agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it in connection with sales of Registrable Securities pursuant to the Registration Statement.

(d) *Discontinued Disposition.* Each Holder agrees by its acquisition of such Registrable Securities that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(c), such Holder will forthwith discontinue disposition of such Registrable Securities under the Registration Statement until such Holder's receipt of the copies of the supplemented Prospectus and/or amended

Registration Statement or until it is advised in writing (the “*Advice*”) by the Company that the use of the applicable Prospectus may be resumed, and, in either case, has received copies of any additional or supplemental filings that are incorporated or deemed to be incorporated by reference in such Prospectus or Registration Statement. The Company may provide appropriate stop orders to enforce the provisions of this paragraph.

(e) *Piggy-Back Registrations*. If at any time during the Effectiveness Period there is not an effective Registration Statement covering all of the Registrable Securities and the Company shall determine to prepare and file with the Commission a registration statement relating to an offering for its own account or the account of others under the Securities Act of any of its equity securities, other than on Form S-4 or Form S-8 (each as promulgated under the Securities Act) or their then equivalents relating to equity securities to be issued solely in connection with any acquisition of any entity or business or equity securities issuable in connection with the stock option or other employee benefit plans, then the Company shall send to each Holder a written notice of such determination and, if within fifteen days after the date of such notice, any such Holder shall so request in writing, the Company shall include in such registration statement all or any part of such Registrable Securities such Holder requests to be registered, subject to customary underwriter cutbacks applicable to all holders of registration rights.

(f) *Amendments and Waivers*. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the same shall be in writing and signed by the Company and each Holder of the then outstanding Registrable Securities.

(g) *Notices*. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number provided for below prior to 6:30 p.m. (New York City time) on a Trading Day, (ii) the Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number provided for below later than 6:30 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 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. The address for such notices and communications shall be delivered and addressed as set forth in the Purchase Agreement

(h) *Successors and Assigns*. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties and shall inure to the benefit of each Holder. Each Holder may assign their respective rights hereunder in the manner and to the Persons as permitted under the Purchase Agreement.

(i) *Execution and Counterparts*. This Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an

original and, all of which taken together shall constitute one and the same Agreement. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid binding obligation of the party executing (or on whose behalf such signature is executed) the same with the same force and effect as if such facsimile signature were the original thereof.

(j) *Governing Law.* All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, 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 this Agreement (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York, New York. Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, New York 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 this Agreement), 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, that such suit, action or proceeding is improper. Each party hereto hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by delivering a copy thereof via overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement 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 Agreement or the transactions contemplated hereby. If either party shall commence an action or proceeding to enforce any provisions of this Agreement, 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.

(k) *Cumulative Remedies.* The remedies provided herein are cumulative and not exclusive of any remedies provided by law.

(l) *Severability.* If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(m) *Headings.* The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning hereof.

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

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IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

**PRO-PHARMACEUTICALS, INC.**

By: /s/ DAVID PLATT

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Name: David Platt

Title: Chief Executive Officer

[PURCHASERS' SIGNATURE PAGES TO FOLLOW]

**BRISTOL INVESTMENT FUND**

By: /s/ PAUL KESSLER

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Name: Paul Kessler  
Title: Director

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**OMICRON MASTER TRUST**

By: Omicron Capital L.P., as subadvisor

By: Omicron Capital Inc., its general partner

By: /s/ OLIVIER MORALI

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Name: Olivier Morali

Title: President

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**THE TAIL WIND FUND LIMITED**

By: Tail Wind Advisory & Management Ltd., as  
Investment Manager

By: /s/ DAVID CROOK

\_\_\_\_\_  
David Crook, Chief Executive Officer

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**CRANSHIRE CAPITAL L.P.**  
**BY: DOWNSIREN CAPITAL, INC., GENERAL PARTNER**

By: /s/ MITCHELL P. KOPIN

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Name: Mitchell P. Kopin  
Title: President

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**CRESCENT INTERNATIONAL LTD.**

By: /s/ MEL CRAW

\_\_\_\_\_  
Name: Mel Crow  
Title: Authorized Signatory

By: /s/ MAXI BREZZI

\_\_\_\_\_  
Name: Maxi Brezzi  
Title: Authorized Signatory

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**ALPHA CAPITAL AG**

By: /s/ KONARD ACKERMANN

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Name: Konrad Ackermann

Title: Director

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**GRYPHON MASTER FUND, LP**

By: /s/ RYAN R. WOLTERS

---

Name Ryan R. Wolters

Title: Authorized Agent

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**DELTA OPPORTUNITY FUND, LTD.**

**By: DIAZ & ALTSCHUL ADVISORS, LLC, as Investment Advisor**

By: /s/ CHRISTOPHER S. MOONEY

---

Name: Christopher S. Mooney  
Title: Chief Financial Officer

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**SF CAPITAL PARTNERS LTD.**

By: /s/ BRIAN H. DAVIDSON

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Name: Brian H. Davidson  
Title: Authorized Signatory

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**PLATINUM PARTNERS VALUE ARBITRAGE FUND LP**

By: /s/ MARK NORDLICHT

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Name: Mark Nordlicht

Title: General Partner

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**AIG DKR SOUNDSHORE PRIVATE INVESTORS HOLDING FUND LTD.**

By: /s/ TODD SAUMLER

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Name: Todd Saumler

Title: Authorized Signatory

[PURCHASERS' SIGNATURE PAGES FOLLOW]

**PORTSIDE GROWTH AND OPPORTUNITY FUND**

By: /s/ JEFFREY SMITH

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Name: Jeffrey Smith  
Title: Authorized Person

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**LANGLEY PARTNERS, L.P.**

By: \_\_\_\_\_

Name:

Title:

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**OTAPE INVESTMENTS LLC**

By: /s/ RICHARD M. COYNE

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Name: Richard M. Coyne  
Title General Counsel

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**ELLIS INTERNATIONAL LTD**

By: /s/ JOHN D. CABOT

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Name: John D. Cabot  
Title: Officer

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**TCMP<sup>3</sup>**

By: /s/ STEVEN SLAWSON

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Name: Steven Slawson  
Title Principal

[ADDITIONAL PURCHASERS' SIGNATURE PAGES FOLLOW]

**GAMMA OPPORTUNITY CAPITAL PARTNERS, LP**

By: /s/ CHRISTOPHER RESSMAN

---

Name: Christopher Ressman  
Title Managing Director

## ANNEX A

### *Plan of Distribution*

The Selling Stockholders and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of Common Stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The Selling Stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The Selling Stockholders may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933

amending the list of Selling Stockholders to include the pledgee, transferee or other successors in interest as Selling Stockholders under this prospectus.

The Selling Stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The Selling Stockholders have informed the Company that it does not have any agreement or understanding, directly or indirectly, with any person to distribute the Common Stock.

The Company is required to pay all fees and expenses incident to the registration of the shares. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES

### COMMON STOCK PURCHASE WARRANT

To Purchase                      Shares of Common Stock of

**Pro-Pharmaceuticals, Inc.**

THIS COMMON STOCK PURCHASE WARRANT CERTIFIES that, for value received,                      (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after October                      , 2003 (the "Initial Exercise Date") and on or prior to the close of business on October                      , 2008 (the "Termination Date") but not thereafter, to subscribe for and purchase from Pro-Pharmaceuticals, Inc., a corporation incorporated in the State of Nevada (the "Company"), up to                      shares (the "Warrant Shares") of Common Stock, of the Company (the "Common Stock"). The purchase price of one share of Common Stock (the "Exercise Price") under this Warrant shall be \$5.29, subject to adjustment hereunder. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein. **Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated October 2, 2003, between the Company and the purchasers signatory thereto.**

1. *Title to Warrant.* Prior to the Termination Date and subject to compliance with applicable laws and Section 7 of this Warrant, this Warrant and all rights hereunder are transferable, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed. The transferee shall sign an investment letter in form and substance reasonably satisfactory to the Company.

2. *Authorization of Shares.* The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

3. *Exercise of Warrant.*

(a) Except as provided in Section 4 herein, exercise of the purchase rights represented by this Warrant may be made at any time or times on or after the Initial Exercise Date and on or before the Termination Date by the surrender of this Warrant and the Notice of Exercise Form annexed hereto duly executed, at the office of the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company) and upon payment of the Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank or by means of a cashless exercise pursuant to Section 3(d), the Holder shall be entitled to receive a certificate for the number of Warrant Shares so purchased. Certificates for shares purchased hereunder shall be delivered to the Holder within three (3) Trading Days after the date on which this Warrant shall have been exercised as aforesaid. This Warrant shall be deemed to have been exercised and such certificate or certificates shall be deemed to have been issued, and the Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid. If the Company fails to deliver to the Holder a certificate or certificates representing the Warrant Shares pursuant to this Section 3(a) by the close of business on the third Trading Day after the date of exercise, then the Holder will have the right to rescind such exercise. In addition to any other rights available to the Holder, if the Company fails to deliver to the Holder a certificate or certificates representing the Warrant Shares pursuant to an exercise by the close of business on the third Trading Day after the date of exercise, and if after such third Trading Day the Holder is required by its broker to purchase (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "*Buy-In*"), then the Company shall (1) pay in cash to the Holder the amount by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds

(y) the amount obtained by multiplying (A) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (B) the price at which the sell order giving rise to such purchase obligation was executed, and (2) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (1) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In, together with applicable confirmations and other evidence reasonably requested by the Company. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

(b) If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(c) Notwithstanding anything herein to the contrary, in no event shall the Holder be permitted to exercise this Warrant for Warrant Shares to the extent that (i) the number of shares of Common Stock beneficially owned by such Holder, together with any affiliate thereof (other than Warrant Shares issuable upon exercise of this Warrant) plus (ii) the number of Warrant Shares issuable upon exercise of this Warrant, would be equal to or exceed 4.999% of the number of shares of Common Stock then issued and outstanding, including shares issuable upon exercise of this Warrant held by such Holder after application of this Section 3(c). As used herein, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act and the rules promulgated thereunder. To the extent that the limitation contained in this Section 3(c) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of such Holder, and the submission of a Notice of Exercise shall be deemed to be such Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. Nothing contained herein shall be deemed to restrict the right of a Holder to exercise this Warrant into Warrant Shares at such time as such exercise will not violate the provisions of this Section 3(c). The provisions of this Section 3(c) may be waived by the Holder upon, at the election of the Holder, not less than 61 days' prior notice to the

Company, and the provisions of this Section 3(c) shall continue to apply until such 61<sup>st</sup> day (or such later date, as determined by the Holder, as may be specified in such notice of waiver). No exercise of this Warrant in violation of this Section 3(c) but otherwise in accordance with this Warrant shall affect the status of the Warrant Shares as validly issued, fully-paid and nonassessable.

(d) If, but only if, at any time after one year from the date of issuance of this Warrant there is no effective Registration Statement registering the resale of the Warrant Shares by the Holder, this Warrant may also be exercised at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing  $[(A-B) (X)]$  by (A), where:

(A) = the VWAP on the Trading Day preceding the date of such election;

(B) = the Exercise Price of the Warrants, as adjusted; and

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

As used herein, “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 4:02 p.m. Eastern Time); (b) if the Common Stock is not then listed or quoted on a Trading Market and if prices for the Common Stock are then quoted on the OTC Bulletin Board, the volume weighted average 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 the OTC Bulletin Board and if prices for the Common Stock are then reported in the “Pink Sheets” published by the National Quotation Bureau Incorporated (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) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority of the Shares then outstanding and reasonably acceptable to the Company.

(e) Subject to the provisions of this Section 3, if after the 18-month anniversary of the Effective Date the VWAP for each of twenty consecutive Trading Days (the “*Measurement Price*”, which period shall not have commenced until after such anniversary date) exceeds the then Exercise Price (subject to adjustment as set forth herein) (the “*Threshold Price*”) by 175%, then the Company may, within three Trading Days of such period, call for cancellation of all or any portion of this Warrant for which a Notice of Exercise has not yet been delivered (such right, a “*Call*”). To exercise this right, the Company must deliver to the Holder an irrevocable written notice (a “*Call Notice*”), indicating therein the portion of unexercised portion of this Warrant to which such notice applies. If the conditions set forth below for such Call are satisfied from the

period from the date of the Call Notice through and including the Call Date (as defined below), then any portion of this Warrant subject to such Call Notice for which a Notice of Exercise shall not have been received from and after the date of the Call Notice will be cancelled at 6:30 p.m. (New York City time) on the tenth Trading Day after the date the Call Notice is received by the Holder (such date, the "Call Date"). Any unexercised portion of this Warrant to which the Call Notice does not pertain will be unaffected by such Call Notice. In furtherance thereof, the Company covenants and agrees that it will honor all Notices of Exercise with respect to Warrant Shares subject to a Call Notice that are tendered from the time of delivery of the Call Notice through 6:30 p.m. (New York City time) on the Call Date. The parties agree that any Notice of Exercise delivered following a Call Notice shall first reduce to zero the number of Warrant Shares subject to such Call Notice prior to reducing the remaining Warrant Shares available for purchase under this Warrant. For example, if (x) this Warrant then permits the Holder to acquire 100 Warrant Shares, (y) a Call Notice pertains to 75 Warrant Shares, and (z) prior to 6:30 p.m. (New York City time) on the Call Date the Holder tenders a Notice of Exercise in respect of 50 Warrant Shares, then (1) on the Call Date the right under this Warrant to acquire 25 Warrant Shares will be automatically cancelled, (2) the Company, in the time and manner required under this Warrant, will have issued and delivered to the Holder 50 Warrant Shares in respect of the exercises following receipt of the Call Notice, and (3) the Holder may, until the Termination Date, exercise this Warrant for 25 Warrant Shares (subject to adjustment as herein provided and subject to subsequent Call Notices). Subject again to the provisions of this Section 3(e), the Company may deliver subsequent Call Notices for any portion of this Warrant for which the Holder shall not have delivered a Notice of Exercise. Notwithstanding anything to the contrary set forth in this Warrant, the Company may not deliver a Call Notice or require the cancellation of this Warrant (and any Call Notice will be void), unless, from the beginning of the 20 consecutive Trading Days used to determine whether the Common Stock has achieved the Threshold Price through the Call Date, (i) the Company shall have honored in accordance with the terms of this Warrant all Notices of Exercise delivered by 6:30 p.m. (New York City time) on the Call Date, (ii) the Registration Statement shall be effective as to all Warrant Shares and the prospectus thereunder available for use by the Holder for the resale of all such Warrant Shares and (iii) the Common Stock shall be listed or quoted for trading on the Trading Market. The Company's right to Call the Warrant shall be exercised ratably among the Purchasers based on each Purchaser's initial purchase of Common Stock pursuant to the Purchase Agreement.

4. *No Fractional Shares or Scrip.* No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

5. *Charges, Taxes and Expenses.* Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; *provided, however*, that in the event

certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

6. *Closing of Books.* The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

7. *Transfer, Division and Combination.*

(a) Subject to compliance with any applicable securities laws and the conditions set forth in Sections 1 and 7(e) hereof and to the provisions of Section 4.1 of the Purchase Agreement, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the Trading office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 7(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

(c) The Company shall prepare, issue and deliver at its own expense (other than transfer taxes) the new Warrant or Warrants under this Section 7.

(d) The Company agrees to maintain, at its aforesaid office, books for the registration and the registration of transfer of the Warrants.

(e) If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws, the Company may require, as a condition of allowing such transfer (i) that the Holder or transferee of this Warrant, as the case may be, furnish to the Company a written opinion of counsel (which opinion shall be in form, substance and scope customary for opinions of counsel in comparable transactions) to the effect that such transfer may be made without registration under the Securities Act and under

applicable state securities or blue sky laws, (ii) that the holder or transferee execute and deliver to the Company an investment letter in form and substance acceptable to the Company and (iii) that the transferee be an “accredited investor” as defined in Rule 501(a) promulgated under the Securities Act.

8. *No Rights as Shareholder until Exercise.* This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price (or by means of a cashless exercise), the Warrant Shares so purchased shall be and be deemed to be issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment.

9. *Loss, Theft, Destruction or Mutilation of Warrant.* The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

10. *Saturdays, Sundays, Holidays, etc.* If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

11. *Adjustments of Exercise Price and Number of Warrant Shares.*

(a) *Stock Splits, etc.* The number and kind of securities purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the happening of any of the following. In case the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to holders of its outstanding Common Stock, (ii) subdivide its outstanding shares of Common Stock into a greater number of shares, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock, or (iv) issue any shares of its capital stock in a reclassification of the Common Stock, then the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive had such Warrant been exercised in advance thereof. Upon each such adjustment of the kind and number of Warrant Shares or other securities of the Company which are purchasable hereunder, the Holder shall thereafter be entitled to purchase the number of Warrant Shares or other securities resulting from such adjustment at an Exercise Price per Warrant Share or other security obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Warrant Shares purchasable pursuant hereto immediately prior to such adjustment and dividing by the number of Warrant Shares or other securities of the Company resulting from such adjustment. An

adjustment made pursuant to this paragraph shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

(b) *Anti-Dilution Provisions.* During the Exercise Period, the Exercise Price (but not the number of Warrant Shares issuable hereunder and for which this Warrant is then exercisable pursuant to Section 1 hereof) shall be subject to adjustment from time to time as provided in this Section 11(b). In the event that any adjustment of the Exercise Price as required herein results in a fraction of a cent, such Exercise Price shall be rounded up or down to the nearest cent.

(i) *Adjustment of Exercise Price.* Except as set forth in Section 11(b)(ii)(E), if and whenever the Company issues or sells, or in accordance with Section 11(b) hereof is deemed to have issued or sold, any shares of Common Stock for an effective consideration per share of less than the then Exercise Price or for no consideration (such lower price, the “*Base Share Price*” and such issuances collectively, a “*Dilutive Issuance*”), then, the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock Outstanding immediately prior to the Dilutive Issuance plus the number of shares of Common Stock which the aggregate offering price for such Dilutive Issuance (assuming receipt by the Corporation in full of all consideration payable upon exercise of such rights, options or warrants) would purchase at the Exercise Price, and the denominator of which shall be the sum of the number of shares of Common Stock Outstanding immediately prior to the Dilutive Issuance plus the number of shares of Common Stock so issued or issuable in connection with the Dilutive Issuance; *provided*, that for purposes hereof, all shares of Common Stock that are issuable upon conversion, exercise or exchange of Capital Share Equivalents shall be deemed outstanding immediately after the issuance of such Common Stock. Such adjustment shall be made whenever such shares of Common Stock or Capital Share Equivalents are issued. For purposes of this Section 11(b), “Common Stock Outstanding” as of a given date shall be the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(ii) *Effect on Exercise Price of Certain Events.* For purposes of determining the adjusted Exercise Price under Section 11(b) hereof, the following will be applicable:

(A) *Issuance of Rights or Options.* If the Company in any manner issues or grants any warrants, rights or options, whether or not immediately exercisable, to subscribe for or to purchase Common Stock or other securities exercisable, convertible into or exchangeable for Common Stock (“*Convertible Securities*”) (such warrants, rights and options to purchase Common Stock or Convertible Securities are hereinafter referred to as “*Options*”) and the effective price per share for which Common Stock is issuable upon the exercise of such Options is less than the Exercise Price (“*Below Base Price Options*”), then the maximum total number of shares of Common Stock issuable upon the exercise of all such

Below Base Price Options (assuming full exercise, conversion or exchange of Convertible Securities, if applicable) will, as of the date of the issuance or grant of such Below Base Price Options, be deemed to be outstanding and to have been issued and sold by the Company for such price per share and the maximum consideration payable to the Company upon such exercise (assuming full exercise, conversion or exchange of Convertible Securities, if applicable) will be deemed to have been received by the Company. For purposes of the preceding sentence, the “effective price per share for which Common Stock is issuable upon the exercise of such Below Base Price Options” is determined by dividing (i) the total amount, if any, received or receivable by the Company as consideration for the issuance or granting of all such Below Base Price Options, plus the minimum aggregate amount of additional consideration, if any, payable to the Company upon the exercise of all such Below Base Price Options, plus, in the case of Convertible Securities issuable upon the exercise of such Below Base Price Options, the minimum aggregate amount of additional consideration payable upon the exercise, conversion or exchange thereof at the time such Convertible Securities first become exercisable, convertible or exchangeable, by (ii) the maximum total number of shares of Common Stock issuable upon the exercise of all such Below Base Price Options (assuming full conversion of Convertible Securities, if applicable). No further adjustment to the Exercise Price will be made upon the actual issuance of such Common Stock upon the exercise of such Below Base Price Options or upon the exercise, conversion or exchange of Convertible Securities issuable upon exercise of such Below Base Price Options.

(B) *Issuance of Convertible Securities.* If the Company in any manner issues or sells any Convertible Securities, whether or not immediately convertible (other than where the same are issuable upon the exercise of Options) and the effective price per share for which Common Stock is issuable upon such exercise, conversion or exchange is less than the Exercise Price, then the maximum total number of shares of Common Stock issuable upon the exercise, conversion or exchange of all such Convertible Securities will, as of the date of the issuance of such Convertible Securities, be deemed to be outstanding and to have been issued and sold by the Company for such price per share and the maximum consideration payable to the Company upon such exercise (assuming full exercise, conversion or exchange of Convertible Securities, if applicable) will be deemed to have been received by the Company. For the purposes of the preceding sentence, the “effective price per share for which Common Stock is issuable upon such exercise, conversion or exchange” is determined by dividing (i) the total amount, if any, received or receivable by the Company as consideration for the issuance or sale of all such Convertible Securities, plus the minimum aggregate amount of additional consideration, if any, payable to the Company upon the

exercise, conversion or exchange thereof at the time such Convertible Securities first become exercisable, convertible or exchangeable, by (ii) the maximum total number of shares of Common Stock issuable upon the exercise, conversion or exchange of all such Convertible Securities. No further adjustment to the Exercise Price will be made upon the actual issuance of such Common Stock upon exercise, conversion or exchange of such Convertible Securities.

(C) *Change in Option Price or Conversion Rate.* If there is a change at any time in (i) the amount of additional consideration payable to the Company upon the exercise of any Options; (ii) the amount of additional consideration, if any, payable to the Company upon the exercise, conversion or exchange of any Convertible Securities; or (iii) the rate at which any Convertible Securities are convertible into or exchangeable for Common Stock (in each such case, other than under or by reason of provisions designed to protect against dilution), the Exercise Price in effect at the time of such change will be readjusted to the Exercise Price which would have been in effect at such time had such Options or Convertible Securities still outstanding provided for such changed additional consideration or changed conversion rate, as the case may be, at the time initially granted, issued or sold.

(D) *Calculation of Consideration Received.* If any Common Stock, Options or Convertible Securities are issued, granted or sold for cash, the consideration received therefor for purposes of this Warrant will be the amount received by the Company therefor, before deduction of reasonable commissions, underwriting discounts or allowances or other reasonable expenses paid or incurred by the Company in connection with such issuance, grant or sale. In case any Common Stock, Options or Convertible Securities are issued or sold for a consideration part or all of which shall be other than cash, the amount of the consideration other than cash received by the Company will be the fair market value of such consideration, except where such consideration consists of securities, in which case the amount of consideration received by the Company will be the fair market value (closing bid price, if traded on any market) thereof as of the date of receipt. In case any Common Stock, Options or Convertible Securities are issued in connection with any merger or consolidation in which the Company is the surviving corporation, the amount of consideration therefor will be deemed to be the fair market value of such portion of the net assets and business of the non-surviving corporation as is attributable to such Common Stock, Options or Convertible Securities, as the case may be. The fair market value of any consideration other than cash or securities will be determined in good faith by an investment banker or other appropriate expert of national reputation selected by the Company and reasonably acceptable to the holder hereof, with the costs of such appraisal to be borne by the Company.

(E) *Exceptions to Adjustment of Exercise Price.* Notwithstanding anything to the contrary herein, this Section 11(b) shall not apply to the following (1) the granting of options to employees, officers and directors of the Company pursuant to any stock option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, or (2) the exercise of any security issued by the Company in connection with the offer and sale of this Company's securities pursuant to the Purchase Agreement, or (3) the exercise of or conversion of any convertible securities, options or warrants issued and outstanding on the date hereof, provided such securities have not been amended since the date hereof, or (4) acquisitions or strategic investments, the primary purpose of which is not to raise capital.

(iii) *Minimum Adjustment of Exercise Price.* No adjustment of the Exercise Price shall be made in an amount of less than 1% of the Exercise Price in effect at the time such adjustment is otherwise required to be made, but any such lesser adjustment shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustments so carried forward, shall amount to not less than 1% of such Exercise Price.

12. *Reorganization, Reclassification, Merger, Consolidation or Disposition of Assets.* In case the Company shall reorganize its capital, reclassify its capital stock, consolidate or merge with or into another corporation (where the Company is not the surviving corporation or where there is a change in or distribution with respect to the Common Stock of the Company), or sell, transfer or otherwise dispose of all or substantially all its property, assets or business to another corporation (including by way of a spin-off) and, pursuant to the terms of such reorganization, reclassification, merger, consolidation or disposition of assets, shares of common stock of the successor or acquiring corporation, or any cash, shares of stock or other securities or property of any nature whatsoever (including warrants or other subscription or purchase rights) in addition to or in lieu of common stock of the successor or acquiring corporation ("*Other Property*"), are to be received by or distributed to the holders of Common Stock of the Company, then the Holder shall have the right thereafter to receive, at the option of the Holder, (a) upon exercise of this Warrant, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and Other Property receivable upon or as a result of such reorganization, reclassification, merger, consolidation or disposition of assets by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event, or (b) cash equal to the value of this Warrant as determined in accordance with the Black-Scholes option pricing formula. In case of any such reorganization, reclassification, merger, consolidation or disposition of assets, the successor or acquiring corporation (if other than the Company) shall expressly assume the due and punctual observance and performance of each and every covenant and condition of this Warrant to be performed and observed by the Company and all the obligations and liabilities hereunder, subject

to such modifications as may be deemed appropriate (as determined in good faith by resolution of the Board of Directors of the Company) in order to provide for adjustments of Warrant Shares for which this Warrant is exercisable which shall be as nearly equivalent as practicable to the adjustments provided for in this Section 12. For purposes of this Section 12, "common stock of the successor or acquiring corporation" shall include stock of such corporation of any class which is not preferred as to dividends or assets over any other class of stock of such corporation and which is not subject to redemption and shall also include any evidences of indebtedness, shares of stock or other securities which are convertible into or exchangeable for any such stock, either immediately or upon the arrival of a specified date or the happening of a specified event and any warrants or other rights to subscribe for or purchase any such stock. The foregoing provisions of this Section 12 shall similarly apply to successive reorganizations, reclassifications, mergers, consolidations or disposition of assets.

13. *Voluntary Adjustment by the Company.* The Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

14. *Notice of Adjustment.* Whenever the number of Warrant Shares or number or kind of securities or other property purchasable upon the exercise of this Warrant or the Exercise Price is adjusted, as herein provided, the Company shall give notice thereof to the Holder, which notice shall state the number of Warrant Shares (and other securities or property) purchasable upon the exercise of this Warrant and the Exercise Price of such Warrant Shares (and other securities or property) after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made.

15. *Notice of Corporate Action.* If at any time:

(a) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(b) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of all or substantially all the property, assets or business of the Company to, another corporation or,

(c) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to Holder (i) at least 20 days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 20 days' prior written notice of the

date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their Warrant Shares for securities or other property deliverable upon such disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to Holder at the last address of Holder appearing on the books of the Company and delivered in accordance with Section 17(d).

16. *Authorized Shares.* The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed.

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

17. *Miscellaneous.*

(a) *Jurisdiction.* This Warrant shall constitute a contract under the laws of New York, without regard to its conflict of law, principles or rules.

(b) *Restrictions.* The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

(c) *Nonwaiver and Expenses.* No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding all rights hereunder terminate on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(d) *Notices.* Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement; provided upon any permitted assignment of this Warrant, the assignee shall promptly provide the Company with its contact information.

(e) *Limitation of Liability.* No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(f) *Remedies.* Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(g) *Successors and Assigns.* Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

(h) *Amendment.* This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(i) *Severability*. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(j) *Headings*. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

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IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: October 2, 2003

**PRO-PHARMACEUTICALS, INC.**

By: /s/ DAVID PLATT

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Name: David Platt

Title: Chief Executive Officer

**NOTICE OF EXERCISE**

To: Pro-Pharmaceuticals, Inc.

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of Pro-Pharmaceuticals, Inc. pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 3(d), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 3(d).

(3) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

\_\_\_\_\_

The Warrant Shares shall be delivered to the following:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(4) *Accredited Investor*. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[PURCHASER]

By: \_\_\_\_\_

Name:

Title:

Dated: \_\_\_\_\_

**ASSIGNMENT FORM**

(To assign the foregoing warrant, execute this form and supply required information. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

\_\_\_\_\_ whose address is \_\_\_\_\_  
\_\_\_\_\_.

Dated: \_\_\_\_\_, \_\_\_\_\_

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_  
\_\_\_\_\_

Signature Guaranteed: \_\_\_\_\_

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES

### COMMON STOCK PURCHASE WARRANT

To Purchase 65,729 Shares of Common Stock of

**Pro-Pharmaceuticals, Inc.**

THIS COMMON STOCK PURCHASE WARRANT CERTIFIES that, for value received, Rodman & Renshaw, Inc. (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after October 2, 2003 (the "Initial Exercise Date") and on or prior to the close of business on October 2, 2006 (the "Termination Date") but not thereafter, to subscribe for and purchase from Pro-Pharmaceuticals, Inc., a corporation incorporated in the State of Nevada (the "Company"), up to 65,729 shares (the "Warrant Shares") of Common Stock, of the Company (the "Common Stock"). The purchase price of one share of Common Stock (the "Exercise Price") under this Warrant shall be **\$6.86**, subject to adjustment hereunder. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein. **Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated October 2, 2003, between the Company and the purchasers signatory thereto.**

1. *Title to Warrant.* Prior to the Termination Date and subject to compliance with applicable laws and Section 7 of this Warrant, this Warrant and all rights hereunder are transferable, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed. The transferee shall sign an investment letter in form and substance reasonably satisfactory to the Company.

2. *Authorization of Shares.* The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

3. *Exercise of Warrant.*

(a) Except as provided in Section 4 herein, exercise of the purchase rights represented by this Warrant may be made at any time or times on or after the Initial Exercise Date and on or before the Termination Date by the surrender of this Warrant and the Notice of Exercise Form annexed hereto duly executed, at the office of the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company) and upon payment of the Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank or by means of a cashless exercise pursuant to Section 3(d), the Holder shall be entitled to receive a certificate for the number of Warrant Shares so purchased. Certificates for shares purchased hereunder shall be delivered to the Holder within three (3) Trading Days after the date on which this Warrant shall have been exercised as aforesaid. This Warrant shall be deemed to have been exercised and such certificate or certificates shall be deemed to have been issued, and the Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid. If the Company fails to deliver to the Holder a certificate or certificates representing the Warrant Shares pursuant to this Section 3(a) by the close of business on the third Trading Day after the date of exercise, then the Holder will have the right to rescind such exercise. In addition to any other rights available to the Holder, if the Company fails to deliver to the Holder a certificate or certificates representing the Warrant Shares pursuant to an exercise by the close of business on the third Trading Day after the date of exercise, and if after such third Trading Day the Holder is required by its broker to purchase (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (1) pay in cash to the Holder the amount by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds

(y) the amount obtained by multiplying (A) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (B) the price at which the sell order giving rise to such purchase obligation was executed, and (2) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (1) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In, together with applicable confirmations and other evidence reasonably requested by the Company. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

(b) If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(c) Notwithstanding anything herein to the contrary, in no event shall the Holder be permitted to exercise this Warrant for Warrant Shares to the extent that (i) the number of shares of Common Stock beneficially owned by such Holder, together with any affiliate thereof (other than Warrant Shares issuable upon exercise of this Warrant) plus (ii) the number of Warrant Shares issuable upon exercise of this Warrant, would be equal to or exceed 4.999% of the number of shares of Common Stock then issued and outstanding, including shares issuable upon exercise of this Warrant held by such Holder after application of this Section 3(c). As used herein, beneficial ownership shall be determined in accordance with Section 13(d) of the Exchange Act and the rules promulgated thereunder. To the extent that the limitation contained in this Section 3(c) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of such Holder, and the submission of a Notice of Exercise shall be deemed to be such Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. Nothing contained herein shall be deemed to restrict the right of a Holder to exercise this Warrant into Warrant Shares at such time as such exercise will not violate the provisions of this Section 3(c). The provisions of this Section 3(c) may be waived by the Holder upon, at the election of the Holder, not less than 61 days' prior notice to the

Company, and the provisions of this Section 3(c) shall continue to apply until such 61<sup>st</sup> day (or such later date, as determined by the Holder, as may be specified in such notice of waiver). No exercise of this Warrant in violation of this Section 3(c) but otherwise in accordance with this Warrant shall affect the status of the Warrant Shares as validly issued, fully-paid and nonassessable.

(d) If, but only if, at any time after one year from the date of issuance of this Warrant there is no effective Registration Statement registering the resale of the Warrant Shares by the Holder, this Warrant may also be exercised at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing  $[(A-B) (X)]$  by (A), where:

(A) = the VWAP on the Trading Day preceding the date of such election;

(B) = the Exercise Price of the Warrants, as adjusted; and

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

As used herein, “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 4:02 p.m. Eastern Time); (b) if the Common Stock is not then listed or quoted on a Trading Market and if prices for the Common Stock are then quoted on the OTC Bulletin Board, the volume weighted average 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 the OTC Bulletin Board and if prices for the Common Stock are then reported in the “Pink Sheets” published by the National Quotation Bureau Incorporated (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) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority of the Shares then outstanding and reasonably acceptable to the Company.

(e) Subject to the provisions of this Section 3, if after the 18-month anniversary of the Effective Date the VWAP for each of twenty consecutive Trading Days (the “*Measurement Price*”, which period shall not have commenced until after such anniversary date) exceeds the then Exercise Price (subject to adjustment as set forth herein) (the “*Threshold Price*”) by 175%, then the Company may, within three Trading Days of such period, call for cancellation of all or any portion of this Warrant for which a Notice of Exercise has not yet been delivered (such right, a “*Call*”). To exercise this right, the Company must deliver to the Holder an irrevocable written notice (a “*Call Notice*”), indicating therein the portion of unexercised portion of this Warrant to which such notice applies. If the conditions set forth below for such Call are satisfied from the

period from the date of the Call Notice through and including the Call Date (as defined below), then any portion of this Warrant subject to such Call Notice for which a Notice of Exercise shall not have been received from and after the date of the Call Notice will be cancelled at 6:30 p.m. (New York City time) on the tenth Trading Day after the date the Call Notice is received by the Holder (such date, the "Call Date"). Any unexercised portion of this Warrant to which the Call Notice does not pertain will be unaffected by such Call Notice. In furtherance thereof, the Company covenants and agrees that it will honor all Notices of Exercise with respect to Warrant Shares subject to a Call Notice that are tendered from the time of delivery of the Call Notice through 6:30 p.m. (New York City time) on the Call Date. The parties agree that any Notice of Exercise delivered following a Call Notice shall first reduce to zero the number of Warrant Shares subject to such Call Notice prior to reducing the remaining Warrant Shares available for purchase under this Warrant. For example, if (x) this Warrant then permits the Holder to acquire 100 Warrant Shares, (y) a Call Notice pertains to 75 Warrant Shares, and (z) prior to 6:30 p.m. (New York City time) on the Call Date the Holder tenders a Notice of Exercise in respect of 50 Warrant Shares, then (1) on the Call Date the right under this Warrant to acquire 25 Warrant Shares will be automatically cancelled, (2) the Company, in the time and manner required under this Warrant, will have issued and delivered to the Holder 50 Warrant Shares in respect of the exercises following receipt of the Call Notice, and (3) the Holder may, until the Termination Date, exercise this Warrant for 25 Warrant Shares (subject to adjustment as herein provided and subject to subsequent Call Notices). Subject again to the provisions of this Section 3(e), the Company may deliver subsequent Call Notices for any portion of this Warrant for which the Holder shall not have delivered a Notice of Exercise. Notwithstanding anything to the contrary set forth in this Warrant, the Company may not deliver a Call Notice or require the cancellation of this Warrant (and any Call Notice will be void), unless, from the beginning of the 20 consecutive Trading Days used to determine whether the Common Stock has achieved the Threshold Price through the Call Date, (i) the Company shall have honored in accordance with the terms of this Warrant all Notices of Exercise delivered by 6:30 p.m. (New York City time) on the Call Date, (ii) the Registration Statement shall be effective as to all Warrant Shares and the prospectus thereunder available for use by the Holder for the resale of all such Warrant Shares and (iii) the Common Stock shall be listed or quoted for trading on the Trading Market. The Company's right to Call the Warrant shall be exercised ratably among the Purchasers based on each Purchaser's initial purchase of Common Stock pursuant to the Purchase Agreement.

4. *No Fractional Shares or Scrip.* No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

5. *Charges, Taxes and Expenses.* Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; *provided, however,* that in the event

certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

6. *Closing of Books.* The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

7. *Transfer, Division and Combination.*

(a) Subject to compliance with any applicable securities laws and the conditions set forth in Sections 1 and 7(e) hereof and to the provisions of Section 4.1 of the Purchase Agreement, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the Trading office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 7(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

(c) The Company shall prepare, issue and deliver at its own expense (other than transfer taxes) the new Warrant or Warrants under this Section 7.

(d) The Company agrees to maintain, at its aforesaid office, books for the registration and the registration of transfer of the Warrants.

(e) If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws, the Company may require, as a condition of allowing such transfer (i) that the Holder or transferee of this Warrant, as the case may be, furnish to the Company a written opinion of counsel (which opinion shall be in form, substance and scope customary for opinions of counsel in comparable transactions) to the effect that such transfer may be made without registration under the Securities Act and under

applicable state securities or blue sky laws, (ii) that the holder or transferee execute and deliver to the Company an investment letter in form and substance acceptable to the Company and (iii) that the transferee be an “accredited investor” as defined in Rule 501(a) promulgated under the Securities Act.

8. *No Rights as Shareholder until Exercise.* This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price (or by means of a cashless exercise), the Warrant Shares so purchased shall be and be deemed to be issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment.

9. *Loss, Theft, Destruction or Mutilation of Warrant.* The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

10. *Saturdays, Sundays, Holidays, etc.* If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

11. *Adjustments of Exercise Price and Number of Warrant Shares.*

(a) *Stock Splits, etc.* The number and kind of securities purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the happening of any of the following. In case the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to holders of its outstanding Common Stock, (ii) subdivide its outstanding shares of Common Stock into a greater number of shares, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock, or (iv) issue any shares of its capital stock in a reclassification of the Common Stock, then the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive had such Warrant been exercised in advance thereof. Upon each such adjustment of the kind and number of Warrant Shares or other securities of the Company which are purchasable hereunder, the Holder shall thereafter be entitled to purchase the number of Warrant Shares or other securities resulting from such adjustment at an Exercise Price per Warrant Share or other security obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Warrant Shares purchasable pursuant hereto immediately prior to such adjustment and dividing by the number of Warrant Shares or other securities of the Company resulting from such adjustment. An

adjustment made pursuant to this paragraph shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

(b) *Anti-Dilution Provisions.* During the Exercise Period, the Exercise Price (but not the number of Warrant Shares issuable hereunder and for which this Warrant is then exercisable pursuant to Section 1 hereof) shall be subject to adjustment from time to time as provided in this Section 11(b). In the event that any adjustment of the Exercise Price as required herein results in a fraction of a cent, such Exercise Price shall be rounded up or down to the nearest cent.

(i) *Adjustment of Exercise Price.* Except as set forth in Section 11(b)(ii)(E), if and whenever the Company issues or sells, or in accordance with Section 11(b) hereof is deemed to have issued or sold, any shares of Common Stock for an effective consideration per share of less than the then Exercise Price or for no consideration (such lower price, the “*Base Share Price*” and such issuances collectively, a “*Dilutive Issuance*”), then, the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock Outstanding immediately prior to the Dilutive Issuance plus the number of shares of Common Stock which the aggregate offering price for such Dilutive Issuance (assuming receipt by the Corporation in full of all consideration payable upon exercise of such rights, options or warrants) would purchase at the Exercise Price, and the denominator of which shall be the sum of the number of shares of Common Stock Outstanding immediately prior to the Dilutive Issuance plus the number of shares of Common Stock so issued or issuable in connection with the Dilutive Issuance; *provided*, that for purposes hereof, all shares of Common Stock that are issuable upon conversion, exercise or exchange of Capital Share Equivalents shall be deemed outstanding immediately after the issuance of such Common Stock. Such adjustment shall be made whenever such shares of Common Stock or Capital Share Equivalents are issued. For purposes of this Section 11(b), “Common Stock Outstanding” as of a given date shall be the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

(ii) *Effect on Exercise Price of Certain Events.* For purposes of determining the adjusted Exercise Price under Section 11(b) hereof, the following will be applicable:

(A) *Issuance of Rights or Options.* If the Company in any manner issues or grants any warrants, rights or options, whether or not immediately exercisable, to subscribe for or to purchase Common Stock or other securities exercisable, convertible into or exchangeable for Common Stock (“*Convertible Securities*”) (such warrants, rights and options to purchase Common Stock or Convertible Securities are hereinafter referred to as “*Options*”) and the effective price per share for which Common Stock is issuable upon the exercise of such Options is less than the Exercise Price (“*Below Base Price Options*”), then the maximum total number of shares of Common Stock issuable upon the exercise of all such

Below Base Price Options (assuming full exercise, conversion or exchange of Convertible Securities, if applicable) will, as of the date of the issuance or grant of such Below Base Price Options, be deemed to be outstanding and to have been issued and sold by the Company for such price per share and the maximum consideration payable to the Company upon such exercise (assuming full exercise, conversion or exchange of Convertible Securities, if applicable) will be deemed to have been received by the Company. For purposes of the preceding sentence, the “effective price per share for which Common Stock is issuable upon the exercise of such Below Base Price Options” is determined by dividing (i) the total amount, if any, received or receivable by the Company as consideration for the issuance or granting of all such Below Base Price Options, plus the minimum aggregate amount of additional consideration, if any, payable to the Company upon the exercise of all such Below Base Price Options, plus, in the case of Convertible Securities issuable upon the exercise of such Below Base Price Options, the minimum aggregate amount of additional consideration payable upon the exercise, conversion or exchange thereof at the time such Convertible Securities first become exercisable, convertible or exchangeable, by (ii) the maximum total number of shares of Common Stock issuable upon the exercise of all such Below Base Price Options (assuming full conversion of Convertible Securities, if applicable). No further adjustment to the Exercise Price will be made upon the actual issuance of such Common Stock upon the exercise of such Below Base Price Options or upon the exercise, conversion or exchange of Convertible Securities issuable upon exercise of such Below Base Price Options.

(B) *Issuance of Convertible Securities.* If the Company in any manner issues or sells any Convertible Securities, whether or not immediately convertible (other than where the same are issuable upon the exercise of Options) and the effective price per share for which Common Stock is issuable upon such exercise, conversion or exchange is less than the Exercise Price, then the maximum total number of shares of Common Stock issuable upon the exercise, conversion or exchange of all such Convertible Securities will, as of the date of the issuance of such Convertible Securities, be deemed to be outstanding and to have been issued and sold by the Company for such price per share and the maximum consideration payable to the Company upon such exercise (assuming full exercise, conversion or exchange of Convertible Securities, if applicable) will be deemed to have been received by the Company. For the purposes of the preceding sentence, the “effective price per share for which Common Stock is issuable upon such exercise, conversion or exchange” is determined by dividing (i) the total amount, if any, received or receivable by the Company as consideration for the issuance or sale of all such Convertible Securities, plus the minimum aggregate amount of additional consideration, if any, payable to the Company upon the

exercise, conversion or exchange thereof at the time such Convertible Securities first become exercisable, convertible or exchangeable, by (ii) the maximum total number of shares of Common Stock issuable upon the exercise, conversion or exchange of all such Convertible Securities. No further adjustment to the Exercise Price will be made upon the actual issuance of such Common Stock upon exercise, conversion or exchange of such Convertible Securities.

(C) *Change in Option Price or Conversion Rate.* If there is a change at any time in (i) the amount of additional consideration payable to the Company upon the exercise of any Options; (ii) the amount of additional consideration, if any, payable to the Company upon the exercise, conversion or exchange of any Convertible Securities; or (iii) the rate at which any Convertible Securities are convertible into or exchangeable for Common Stock (in each such case, other than under or by reason of provisions designed to protect against dilution), the Exercise Price in effect at the time of such change will be readjusted to the Exercise Price which would have been in effect at such time had such Options or Convertible Securities still outstanding provided for such changed additional consideration or changed conversion rate, as the case may be, at the time initially granted, issued or sold.

(D) *Calculation of Consideration Received.* If any Common Stock, Options or Convertible Securities are issued, granted or sold for cash, the consideration received therefor for purposes of this Warrant will be the amount received by the Company therefor, before deduction of reasonable commissions, underwriting discounts or allowances or other reasonable expenses paid or incurred by the Company in connection with such issuance, grant or sale. In case any Common Stock, Options or Convertible Securities are issued or sold for a consideration part or all of which shall be other than cash, the amount of the consideration other than cash received by the Company will be the fair market value of such consideration, except where such consideration consists of securities, in which case the amount of consideration received by the Company will be the fair market value (closing bid price, if traded on any market) thereof as of the date of receipt. In case any Common Stock, Options or Convertible Securities are issued in connection with any merger or consolidation in which the Company is the surviving corporation, the amount of consideration therefor will be deemed to be the fair market value of such portion of the net assets and business of the non-surviving corporation as is attributable to such Common Stock, Options or Convertible Securities, as the case may be. The fair market value of any consideration other than cash or securities will be determined in good faith by an investment banker or other appropriate expert of national reputation selected by the Company and reasonably acceptable to the holder hereof, with the costs of such appraisal to be borne by the Company.

(E) *Exceptions to Adjustment of Exercise Price.* Notwithstanding anything to the contrary herein, this Section 11(b) shall not apply to the following (1) the granting of options to employees, officers and directors of the Company pursuant to any stock option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, or (2) the exercise of any security issued by the Company in connection with the offer and sale of this Company's securities pursuant to the Purchase Agreement, or (3) the exercise of or conversion of any convertible securities, options or warrants issued and outstanding on the date hereof, provided such securities have not been amended since the date hereof, or (4) acquisitions or strategic investments, the primary purpose of which is not to raise capital.

(iii) *Minimum Adjustment of Exercise Price.* No adjustment of the Exercise Price shall be made in an amount of less than 1% of the Exercise Price in effect at the time such adjustment is otherwise required to be made, but any such lesser adjustment shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustments so carried forward, shall amount to not less than 1% of such Exercise Price.

12. *Reorganization, Reclassification, Merger, Consolidation or Disposition of Assets.* In case the Company shall reorganize its capital, reclassify its capital stock, consolidate or merge with or into another corporation (where the Company is not the surviving corporation or where there is a change in or distribution with respect to the Common Stock of the Company), or sell, transfer or otherwise dispose of all or substantially all its property, assets or business to another corporation (including by way of a spin-off) and, pursuant to the terms of such reorganization, reclassification, merger, consolidation or disposition of assets, shares of common stock of the successor or acquiring corporation, or any cash, shares of stock or other securities or property of any nature whatsoever (including warrants or other subscription or purchase rights) in addition to or in lieu of common stock of the successor or acquiring corporation ("*Other Property*"), are to be received by or distributed to the holders of Common Stock of the Company, then the Holder shall have the right thereafter to receive, at the option of the Holder, (a) upon exercise of this Warrant, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and Other Property receivable upon or as a result of such reorganization, reclassification, merger, consolidation or disposition of assets by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event, or (b) cash equal to the value of this Warrant as determined in accordance with the Black-Scholes option pricing formula. In case of any such reorganization, reclassification, merger, consolidation or disposition of assets, the successor or acquiring corporation (if other than the Company) shall expressly assume the due and punctual observance and performance of each and every covenant and condition of this Warrant to be performed and observed by the Company and all the obligations and liabilities hereunder, subject

to such modifications as may be deemed appropriate (as determined in good faith by resolution of the Board of Directors of the Company) in order to provide for adjustments of Warrant Shares for which this Warrant is exercisable which shall be as nearly equivalent as practicable to the adjustments provided for in this Section 12. For purposes of this Section 12, "common stock of the successor or acquiring corporation" shall include stock of such corporation of any class which is not preferred as to dividends or assets over any other class of stock of such corporation and which is not subject to redemption and shall also include any evidences of indebtedness, shares of stock or other securities which are convertible into or exchangeable for any such stock, either immediately or upon the arrival of a specified date or the happening of a specified event and any warrants or other rights to subscribe for or purchase any such stock. The foregoing provisions of this Section 12 shall similarly apply to successive reorganizations, reclassifications, mergers, consolidations or disposition of assets.

13. *Voluntary Adjustment by the Company.* The Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

14. *Notice of Adjustment.* Whenever the number of Warrant Shares or number or kind of securities or other property purchasable upon the exercise of this Warrant or the Exercise Price is adjusted, as herein provided, the Company shall give notice thereof to the Holder, which notice shall state the number of Warrant Shares (and other securities or property) purchasable upon the exercise of this Warrant and the Exercise Price of such Warrant Shares (and other securities or property) after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made.

15. *Notice of Corporate Action.* If at any time:

(a) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(b) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of all or substantially all the property, assets or business of the Company to, another corporation or,

(c) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to Holder (i) at least 20 days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 20 days' prior written notice of the

date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their Warrant Shares for securities or other property deliverable upon such disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to Holder at the last address of Holder appearing on the books of the Company and delivered in accordance with Section 17(d).

16. *Authorized Shares.* The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed.

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

17. *Miscellaneous.*

(a) *Jurisdiction.* This Warrant shall constitute a contract under the laws of New York, without regard to its conflict of law, principles or rules.

(b) *Restrictions.* The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

(c) *Nonwaiver and Expenses.* No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding all rights hereunder terminate on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

(d) *Notices.* Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement; provided upon any permitted assignment of this Warrant, the assignee shall promptly provide the Company with its contact information.

(e) *Limitation of Liability.* No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(f) *Remedies.* Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(g) *Successors and Assigns.* Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

(h) *Amendment.* This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(i) *Severability*. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(j) *Headings*. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

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IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: October 2, 2003

**PRO-PHARMACEUTICALS, INC.**

By: /s/ DAVID PLATT

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Name: David Platt

Title: Chief Executive Officer

**NOTICE OF EXERCISE**

To: Pro-Pharmaceuticals, Inc.

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of Pro-Pharmaceuticals, Inc. pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 3(d), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 3(d).

(3) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

\_\_\_\_\_

The Warrant Shares shall be delivered to the following:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[PURCHASER]

By: \_\_\_\_\_

Name:

Title:

Dated: \_\_\_\_\_

**ASSIGNMENT FORM**

(To assign the foregoing warrant, execute this form and supply required information. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

\_\_\_\_\_ whose address is \_\_\_\_\_  
\_\_\_\_\_.

Dated: \_\_\_\_\_, \_\_\_\_\_

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_  
\_\_\_\_\_

Signature Guaranteed: \_\_\_\_\_

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

[PRO-PHARMACEUTICALS, INC. LOGO]

## Pro-Pharmaceuticals Announces \$4.6 Million Private Placement Financing

**Newton, Mass., October 3, 2003** — Pro-Pharmaceuticals, Inc. (Amex:PRW), a developer of novel cancer therapeutics to target cancer cells through carbohydrate chemistry, today announced it has raised \$4.6 million, in gross proceeds, through the private placement of approximately 1.3 million newly issued shares of common stock to institutional investors. Investors also will receive five-year warrants to purchase approximately 650,000 shares of common stock. The proceeds from the transaction will be used to fund ongoing operations. Rodman & Renshaw acted as the placement agent for the transaction.

Pro-Pharmaceuticals, Inc. — Advancing Drugs Through Glycoscience™

Pro-Pharmaceuticals, founded in 2000 and headquartered in Newton, MA, is a drug development company commercializing a new generation of anti-cancer treatments using carbohydrate molecules to upgrade the safety and efficacy of anti-cancer agents. The Company is a leader in the use of structure-based drug design, an approach to drug discovery that integrates advanced biology and chemistry. Additional information is available at [www.pro-pharmaceuticals.com](http://www.pro-pharmaceuticals.com).

**FORWARD LOOKING STATEMENTS:** Any statements in this press release about future expectations, plans and prospects for the Company, including without limitation statements containing the words “believes,” “anticipates,” “plans,” “expects,” “will” and similar expressions, constitute forward-looking statements as defined in the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. Because of uncertainties and risks facing the Company, many of which are outside of the Company’s control, future events could cause actual results to differ materially from those indicated by such statements. More information about those risks and uncertainties is contained and discussed in the “Plan of Operations” and “Risk Factors” sections of the Company’s most recent quarterly or annual report and in the Company’s other reports filed with the Securities and Exchange Commission. The forward-looking statements herein represent the Company’s views as of the date of this press release and should not be relied upon to represent the Company’s views as of a subsequent date. While the Company anticipates that subsequent events may cause the Company’s views to change, the Company disclaims any obligation to update such forward-looking statements.

*Contact:* Pro-Pharmaceuticals, Inc., Anthony D. Squeglia, 617.559.0033.