Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

PRO-PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of incorporation or organization)

04-3562325 (I.R.S. Employer Identification No.)

189 Wells Avenue Newton, Massachusetts 02459 (617) 559-0033 (Address, including zip code, and telephone number, including area code, of principal executive offices)

David Platt. Ph.D. **President and Chief Executive Officer Pro-Pharmaceuticals, Inc.** 189 Wells Avenue Newton, Massachusetts 02459 (617) 559-0033 (Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:

Jonathan C. Guest, Esq. Greenberg Traurig, LLP **One International Place** Boston, Massachusetts 02110 Telephone: (617) 310-6000 Telecopy: (617) 310-6001

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement is declared effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. \Box

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. \Box

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities to be Registered | Amount to be Registered (1) | Proposed Maximum Offering Price per Share (2) | Proposed Maximum Aggregate Offering Price (2) | Amount of Registration Fee (2) |
|--|-----------------------------------|---|---|-----------------------------------|
| Common Stock, \$.001 par value per share | 7,300,000 | \$3.68 | \$26,864,000 | \$2,874 |

(1)Includes (i) an estimated 5,150,000 shares of common stock issuable upon conversion or redemption of, or as interest payments on, 7% Convertible Debentures due February 2008, (ii) an estimated 1,950,000 shares of common stock issuable upon exercise of warrants, and (iii) an estimated 200,000 shares of common stock issuable upon exercise of placement agent warrants. Pursuant to Rule 416 under the Securities Act, this Registration Statement also covers such additional number of shares of common stock as may be issuable upon a stock split, stock dividend or similar transaction.

(2) The offering price is estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c), using the average of the high and low prices of the Registrant's common stock as reported on the American Stock Exchange on March 9, 2006, which was approximately \$3.68 per share.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling stockholders named in this prospectus may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and the selling stockholders named in this prospectus are not soliciting offers to buy these securities in any jurisdiction where the offer and sale is not permitted.

Subject to completion, dated March 15, 2006

PROSPECTUS

PRO-PHARMACEUTICALS, INC.

7,300,000 Shares of Common Stock

This prospectus relates to the offer and sale from time to time by the selling security holders identified in this prospectus, and their pledgees, assignees and successors-in-interest, of (i) up to 5,150,000 shares of our common stock issuable upon conversions or redemptions of, or as interest payments on, an aggregate \$10,000,000 original principal amount of our 7% Convertible Debentures, and (ii) up to 2,150,000 shares of our common stock issuable upon the exercise of warrants. We are filing the registration statement of which this prospectus is a part in order to fulfill contractual obligations which we undertook at the time of the original issuance of the Debentures and warrants.

The prices at which such stockholders may sell the shares in this offering will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive any of the proceeds from the sale of the shares.

Our common stock is traded on the American Stock Exchange under the symbol "PRW." On March 9, 2006, the last reported sale price of our common stock was \$3.75 per share. We urge you to obtain current market quotations for our common stock.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 4.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is March 15, 2006.

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Our executive offices are located at 189 Wells Avenue, Newton, Massachusetts 02459. Our telephone number is (617) 559-0033, fax number is (617) 928-3450, e-mail address is squeglia@pro-pharmaceuticals.com, and our website address is www.pro-pharmaceuticals.com. The information on our website is not incorporated by reference into this prospectus.

You should rely only on the information contained in this prospectus, including information incorporated by reference in this prospectus, or any supplement to which we have referred you. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date on the front of those documents or that any document incorporated by reference is accurate as of any date other than its filing date. You should not consider this prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

PROSPECTUS SUMMARY

This summary highlights important features of this offering and the information included or incorporated by reference in this prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should read this prospectus and the information and documents incorporated by reference carefully. Such documents contain important information you should consider when making your investment decision. See "Incorporation of Certain Documents by Reference" on page 14.

Unless the context otherwise requires, all references to "we," "our," "our company, or "the Company" in this prospectus refer to Pro-Pharmaceuticals, Inc., a Nevada corporation, and its subsidiaries, and their respective predecessor entities for the applicable periods, considered as a single enterprise.

About Pro-Pharmaceuticals, Inc.

Pro-Pharmaceuticals, Inc. is engaged in the discovery, development and commercialization of carbohydrate-based therapeutic compounds. We believe our expertise in carbohydrates offer numerous opportunities to provide advanced treatment of disease including cancer, cardiovascular disease, inflammatory disease (including fibrosis and cirrhosis), Alzheimer's disease and viral infections.

Our work has initially concentrated on target delivery of chemotherapy drugs for the treatment of cancer. We believe our initial product candidate - DAVANAT[®] - when used in combination with existing FDA-approved cancer drugs may increase the efficacy and decrease the toxicity of current chemotherapy treatment.

DAVANAT[®] in combination with 5-Fluorouracil (5-FU), a widely used chemotherapy, has successfully completed a Phase I human clinical trial and is currently in a Phase II trial. We have also undertaken pre-clinical work with DAVANAT[®] in combination with other chemotherapy drugs and have evidence that DAVANAT[®] works effectively with a wide range of approved chemotherapy drugs. All of our products are in the development stage.

The Offering

We will not receive any proceeds from the sale of shares in this offering.

Common stock offered by selling stockholders

American Stock Exchange symbol

7,300,000 shares

Use of proceeds

PRW

RISK FACTORS THAT MAY AFFECT FUTURE RESULTS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below and the other information before deciding to invest in our common stock. The risks described below are not the only ones facing our company. Additional risks not presently known to us or that we currently consider immaterial may also adversely affect our business. We have attempted to identify below the major factors that could cause differences between actual and planned or expected results, but we cannot assure you that we have identified all of those factors.

If any of the following risks actually happen, our business, financial condition and operating results could be materially adversely affected. In this case, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to Pro-Pharmaceuticals, Inc.

We Are at an Early Stage of Development with Limited Operating History. We are a development-stage company with a limited operating history, and we have not generated any revenues to date. We have no therapeutic products available for sale, and none are expected to be commercially available for several years, if at all. We may never generate revenue or become profitable, even if we are able to commercialize any products.

We Have Incurred Net Losses to Date and Depend on Outside Capital. Our accumulated deficit as of December 31, 2005 was \$26,430,000. We will need to continue to conduct significant research, development, testing and regulatory compliance activities that, together with projected general and administrative expenses, we expect will result in substantial operating losses for the next several years. Accordingly, we will not be generating sales or other revenue and will remain dependent on outside sources of financing during that time. If we are unable to raise funds from outside sources for our continuing operations, we may be adversely affected.

We may raise such capital through public or private equity financings, partnerships, debt financings, bank borrowings, or other sources. Additional funding may not be available on favorable terms or at all. If adequate funds are not otherwise available, we may need to significantly curtail operations. To obtain additional funding, we may need to enter into arrangements that require us to relinquish rights to certain technologies, products and/or potential markets. To the extent that additional capital is raised through the sale of equity, or securities convertible into equity, our equity holders may experience dilution of their proportionate ownership of the company.

Based on \$4,466,000 of available cash and cash equivalents as of December 31, 2005, and the approximately \$9.3 million of net proceeds from the sale of 7% Convertible Debentures and Common Stock Purchase Warrants on February 14, 2006 we believe that we have sufficient capital to fund our operations through at least June 2007.

Our Product Candidates Will Be Based on Novel Unproven Technologies. Our product candidates will be based on novel unproven technologies using proprietary carbohydrate compounds in combination with FDA approved of drugs currently used in the treatment of cancer and other diseases. Carbohydrates are difficult to synthesize, and we may not be able to synthesize carbohydrates that would be usable as delivery vehicles for the anti-cancer drugs we plan to work with.

Our Drug Candidates are in Clinical Trials and Results Are Uncertain. We have one product candidate in human clinical trials. Pre-clinical results in animal studies are not necessarily predictive of outcomes in human clinical trials. Clinical trials are expensive, time-consuming and may not be successful. They involve the testing of potential therapeutic agents, or effective treatments, in humans, typically in three phases, to determine the safety and efficacy of the product candidates necessary for an approved drug. Many products in human clinical trials fail to demonstrate the desired safety and efficacy characteristics. Even if our products progress successfully through initial human testing, they may fail in later stages of development. We will be dependent on others to conduct our clinical trials, including clinical research organizations and, possibly, government-sponsored agencies. These trials may not start or be completed as we forecast, or may be unsuccessful.

Our Product Candidates May Not Be Successfully Commercialized. Even if our product candidates are successful in clinical trials, they may not be successfully commercialized. Potential products may fail to receive necessary regulatory approvals, be difficult to manufacture on a large scale, be uneconomical to produce, fail to achieve market acceptance, or be precluded from commercialization by proprietary rights of third parties.

Our Lack of Operating Experience May Cause Us Difficulty in Managing Our Growth. We have limited experience in manufacturing or procuring products in commercial quantities, conducting other later-stage phases of the

regulatory approval process, selling pharmaceutical products, or negotiating, establishing and maintaining strategic relationships. Any growth of our company will require us to expand our management and our operational and financial systems and controls. If we are unable to do so, our business and financial condition would be materially harmed. If rapid growth occurs, it may strain our operational, managerial and financial resources.

We Will Depend on Third Parties to Manufacture and Market Our Products. We do not have, and do not now intend to develop, facilities for the manufacture of any of our products for clinical or commercial production. Accordingly, we will need to develop relationships with manufacturers and enter into collaborative arrangements with licensees or have others manufacture our products on a contract basis. We expect to depend on such collaborators to supply us with products manufactured in compliance with standards imposed by the FDA and foreign regulators.

In addition, we have limited experience in marketing, sales or distribution, and we do not intend to develop a sales and marketing infrastructure to commercialize our pharmaceutical products. If we develop commercial products, we will need to rely on licensees, collaborators, joint venture partners or independent distributors to market and sell those products.

We Depend on Key Individuals to Develop Our Products and Pursue Collaborations. We are highly dependent on Dr. David Platt, President and Chief Executive Officer; Dr. Anatole Klyosov, our chief scientist; and Dr. Eliezer Zomer, Vice President, Manufacturing and Product Development. The loss of any of these persons, or failure to attract or retain other key personnel, could prevent us from pursuing collaborations or developing our products and core technologies.

We Are a Counterclaim Defendant in a Lawsuit Instituted by Dr. Platt. Dr. Platt filed a lawsuit in Massachusetts in January 2004 against GlycoGenesys, Inc. for claims including breach of contract. In its answer GlycoGenesys named us as a counterclaim defendant alleging tortious interference and misappropriation of proprietary rights, and seeks monetary damages and injunctive relief related to our intellectual property. In March 2004, we answered the counterclaim and denied any liability. We and Dr. Platt intend to contest these counterclaims vigorously. If we do not prevail there could be a material adverse impact on our financial position, results of operations or cash flows.

We Could Be Required to Make Substantial Cash Payments Upon an Event of Default Under Our Debentures. Our 7% Convertible Debentures provide for events of default including, without limitation, failure to timely make payments of principal, interest or other amounts due thereunder, failure to observe or perform any covenant or agreement set forth in the Debentures or other material agreements to which we are a party, default on another credit agreement or facility evidencing of obligations in excess of \$250,000, ineligibility of our stock for listing or quotation on a trading market, lapse of effectiveness of the registration statement registering the shares subject to this prospectus or inability of selling stockholders to offer and sell shares hereunder in excess of certain "blackout" periods, and failure to have the shares registered within 180 days after the February 14, 2006 date of sale of the Debentures and warrants. If an event of default occurs, the outstanding principal, plus accrued and unpaid interest due thereon, and all other amounts due under each Debenture may become, at the holder's election, immediately due and payable in cash in an amount that is not less than the sum of (i) 130% of the outstanding principal plus accrued and unpaid interest and (ii) other amounts due to such holder. We would not be able to repay this amount without raising additional capital. Please see "Description of Transaction" below for additional detail about the Debentures and warrants.

We Cannot Take Certain Actions Without the Consent of the Debenture Holders. For as long as at least \$1 million of our 7% Convertible Debentures remains outstanding, we cannot take certain actions, including, among others, incurrence of indebtedness beyond a stated amount, amendments of our charter or governance documents, repurchase or other acquisition of more than a de minimis number of the shares of our common stock or securities exercisable, convertible or exchangeable for shares of our common stock. These negative covenants may limit actions, such as a finance transaction that requires an amendment of our certificate of organization, that we believe are in the best interests of Pro-Pharmaceuticals but which we cannot complete if the holders of the Debentures do not consent. Please see "Description of Transaction" below for additional detail about the Debentures and warrants.

Risks Related to the Drug Development Industry

We Will Need Regulatory Approvals to Commercialize Our Products. We currently do not have products approved for sale in the U.S. or any foreign market. We are required to obtain approval from the FDA in order to sell our products in the U.S. and from foreign regulatory authorities in order to sell our products in other countries. The FDA's review and approval process is lengthy, expensive and uncertain. Extensive pre-clinical and clinical data and supporting information must be submitted to the FDA for each indication for each product candidate in order to secure FDA approval. The FDA

could reject an application or require us to conduct additional clinical or other studies as part of the regulatory review process. Delays in obtaining or failure to obtain FDA approvals would prevent or delay the commercialization of our products, which would prevent, defer or decrease our receipt of revenues. If we receive initial regulatory approval, our product candidates will be subject to extensive and rigorous ongoing domestic and foreign government regulation.

Our Competitive Position Depends on Protection of Our Intellectual Property. Development and protection of our intellectual property are critical to our business. If we do not adequately protect our intellectual property, competitors may be able to practice our technologies. Our success depends in part on our ability to obtain patent protection for our products or processes in the United States and other countries, protect trade secrets, and prevent others from infringing on our proprietary rights.

Since patent applications in the United States are maintained in secrecy for at least portions of their pendency periods (published on U.S. patent issuance or, if earlier, 18 months from earliest filing date for most applications) and since other publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we are the first to make the inventions to be covered by our patent applications. The patent position of biopharmaceutical firms generally is highly uncertain and involves complex legal and factual questions. The U.S. Patent and Trademark Office has not established a consistent policy regarding the breadth of claims that it will allow in biotechnology patents.

We cannot assure you that all of our patent applications will issue as patents or that the claims of any issued patents will afford meaningful protection for our technologies or products. In addition, patents issued to us or our licensors may be challenged and subsequently narrowed, invalidated or circumvented. Patent litigation is widespread in the biotechnology industry and could harm our business. Litigation might be necessary to protect our patent position or to determine the scope and validity of third-party proprietary rights, and we may not have the required resources to pursue such litigation or to protect our patent rights.

Although we require our scientific and technical employees and consultants to enter into broad assignment of inventions agreements, and all of our employees, consultants and corporate partners with access to proprietary information to enter into confidentiality agreements, these agreements may not be honored.

We are a counterclaim defendant in a lawsuit instituted by Dr. Platt. See "Risks Related to Pro-Pharmaceuticals" above.

Products We Develop Could Be Subject to Infringement Claims Asserted by Others. We cannot assure that products based on our patents or intellectual property that we license from others will not be challenged by a third party claiming infringement of its proprietary rights. If we were not able to successfully defend our patents or licensed rights, we may have to pay substantial damages, possibly including treble damages, for past infringement.

We Face Intense Competition in the Biotechnology and Pharmaceutical Industries. The biotechnology and pharmaceutical industries are intensely competitive. We face direct competition from U.S. and foreign companies focusing on drug delivery technologies, which are rapidly evolving. Our competitors include major, multinational pharmaceutical and chemical companies, specialized biotechnology firms and universities and other research institutions. Many of these competitors have greater financial and other resources, larger research and development staffs and more effective marketing and manufacturing organizations, than we do. In addition, academic and government institutions are increasingly likely to enter into exclusive licensing agreements with commercial enterprises, including our competitors, to market commercial products based on technology developed at such institutions. Our competitors may succeed in developing or licensing technologies and products that are more effective or less costly than ours, or succeed in obtaining FDA or other regulatory approvals for product candidates before we do.

Health Care Cost Containment Initiatives and the Growth of Managed Care May Limit Our Returns. Our ability to commercialize our products successfully will be affected by the ongoing efforts of governmental and third-party payors to contain the cost of health care. These entities are challenging prices of health care products and services, denying or limiting coverage and reimbursement amounts for new therapeutic products, and for FDA-approved products considered experimental or investigational, or which are used for disease indications without FDA marketing approval.

Even if we succeed in bringing any products to the market, they may not be considered cost-effective and third-party reimbursement might not be available or sufficient. If adequate third-party coverage is not available, we may not be able to maintain price levels sufficient to realize an appropriate return on our investment in research and product development. In addition, legislation and regulations affecting the pricing of pharmaceuticals may change in ways adverse to us before or after any of our proposed products are approved for marketing.

Our Insurance Coverage May Not Be Adequate In All Circumstances. In the future, we may, in the ordinary course of business, be subject to claims by, and liability to, persons alleging injury as a result of taking products we have under development. If we are successful in having products approved by the FDA, the sale of such products would expose us to additional potential product liability and other claims resulting from their use. This liability may result from claims made directly by consumers or by pharmaceutical companies or others selling such products. Although we currently have insurance coverage for both product liability and professional liability, it is possible that we will not be able to maintain such insurance on acceptable terms. Any inability to maintain insurance coverage on acceptable terms could prevent or limit the commercialization of any products we develop.

Risks Related to Our Stock

Stock Prices for Biopharmaceutical and Biotechnology Companies Are Volatile. The market price for securities of biopharmaceutical and biotechnology companies historically has been highly volatile, and the market from time-to-time has experienced significant price and volume fluctuations that are unrelated to the operating performance of such companies. Fluctuations in the trading price or liquidity of our common stock may adversely affect our ability to raise capital through future equity financings.

Large Sales Could Reduce the Trading Price of Our Common Stock. We listed our common stock on the American Stock Exchange in September 2003, prior to which our stock traded on the OTC Bulletin Board. Based on varying trading volume to date, our stock could be considered "thinly traded." In 2003 and 2004, on behalf of existing stockholders, we registered for re-sale approximately 14.65 million shares of our common stock, and approximately 3.61 million shares of stock issuable upon exercise of immediately exercisable warrants. In the registration statement of which this prospectus is a part, on behalf of the holders of our 7% Convertible Debentures and common stock purchase warrants, we are registering an additional 7.3 million shares of common stock issuable upon conversion or redemption of, or as interest payments on, the Debentures and exercise of the warrants. The interest and principal are payable monthly commencing July 1, and August 1, 2006, respectively, in shares of common stock, subject to some restrictions. In general, shares of registered common stock may be re-sold into the public markets without volume or other restrictions. Large sales of our registered shares could place substantial downward pressure on the trading price of our common stock, particularly if the amount sold significantly exceeds the then-current trading volume of our stock.

Downward Pressure on Our Stock Price Could Result if Certain Stockholders Become Short-term Investors. Provided we meet certain requirements, all outstanding principal and interest under the Debentures may be paid in shares of our common stock. Within 6 months after issuance, the warrants we concurrently sold become exercisable. In connection with the sale of these securities, we agreed to promptly register the shares of our common stock issuable under the Debentures, and upon exercise of the warrant, for re-sale into the public markets. We may enter into similar financing transactions in the future with the same or different investors. Because such investors typically receive registered shares well in advance of the expiration of the holding periods under Rule 144 of the Securities Act, they may choose to sell their shares after a short period of holding our stock. If sufficient quantities of stock are sold during a brief interval of time, this could result in downward pressure on the market price for shares of our publicly traded common stock.

Four Principal Stockholders Own Enough Shares to Control The Company. Four of our principal stockholders, David Platt, James Czirr, Offer Binder and Anatole Klyosov own or control approximately 42% of the outstanding shares of our common stock, and Dr. Platt and Mr. Czirr together own approximately 34%. Some or all of these stockholders, acting in concert, may be able to substantially influence the election of the Board of Directors and other corporate actions requiring stockholder approval, such as recapitalization or other fundamental corporate action, as well as the direction and policies of our company. Such concentration of ownership also could have the effect of delaying, deterring or preventing a change in control of the company that might otherwise be beneficial to stockholders.

Changes in Laws, Regulations and Financial Accounting Standards May Affect Our Reported Results of Operations. The Sarbanes-Oxley Act of 2002 and related regulations may result in changes in accounting standards or accepted practices within our industry and could add significant new costs to being a public company. New laws, regulations and accounting standards, as well as changes to currently accepted accounting practices, including the expensing of stock options, could adversely affect our reported financial results and negatively affect our stock price. Additional unanticipated expenses incurred to comply with new requirements could also negatively impact our results of operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain, in addition to historical information, forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements relate to future events or our future financial performance and can be identified by the use of forward-looking terminology such as "may," "could," "expect," "anticipate," "estimate," "continue" or other similar words. These forward-looking statements are based on management's current expectations and are subject to a number of factors and uncertainties which could cause actual results to differ materially from those described in such statements. We caution investors that actual results or business conditions may differ materially from those projected or suggested in forward-looking statements as a result of various factors including, but not limited to, those described in the Risk Factors section of this prospectus. We cannot assure you that we have identified all the factors that create uncertainties. Readers should not place undue reliance on forward-looking statements. We undertake no obligation to publicly release the result of any revision of these forward-looking statements to reflect events or circumstances after the date they are made or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

The proceeds from the sale of each selling stockholder's shares of common stock will belong to that selling stockholder. We will not receive any proceeds from those sales.

DESCRIPTION OF TRANSACTION

On February 14, 2006, we completed a financing in which we issued an aggregate \$10 million original principal amount of 7% Convertible Debentures due February 14, 2008 (the "Debentures"), convertible at any time at a holder's option into shares of our common stock at a price of \$3.35 per share, subject to adjustment, and warrants to purchase approximately 1.5 million shares of our common stock at an initial exercise price of \$3.35 per share, subject to adjustment. The initial conversion price of the Debentures and exercise price of the warrants equaled 110% of the closing price of our common stock on the American Stock Exchange on the date we completed the transaction. We are required on behalf of the holders of these securities (i) to register the shares of common stock issuable upon conversion or redemption of, or payable as interest on, the Debentures, or upon exercise of the Warrants (all of such shares, collectively, the "Underlying Shares"), and (ii) to seek approval of our shareholders, pursuant to the rules of the American Stock Exchange, to issue Underlying Shares in excess of 19.999% (the "Issuable Maximum") of the number of the issued and outstanding shares of our common stock on the date we sold these securities. Because the number of Underlying Shares issuable pursuant to the Debentures and Warrants is based on the future prices of our common stock, we do not know at this time if we will be required to issue a number of Underlying Shares that exceed the Issuable Maximum. As a precautionary measure, we plan to seek the approval of our shareholders for us to issue Underlying Shares that exceed the Issuable Maximum, even though such approval may not be required. In connection with closing the transaction, we obtained agreements of holders of 42% of our outstanding common stock to vote their shares to approve issuances of Underlying Shares that exceed the Issuable Maximum.

Summary of Certain Terms of the Debentures

The conversion price of the Debentures is subject to adjustments for (i) stock splits, stock dividends, combinations, reclassifications, mergers, consolidations, distributions of assets or evidence of indebtedness, sales or transfers of substantially all assets, share exchanges or similar events, and (ii) dilutive issuances of common stock, or securities convertible, exercisable or exchangeable for shares of our common stock ("Common Stock Equivalents"), at an effective price per share that is lower than the then conversion price, such adjustment to result in a "full-ratchet" reduction of the conversion price to the price per share sold in the dilutive issuance. The Debentures require payment of interest on the outstanding principal amount at the rate of 7% per annum beginning July 1, 2006 and thereafter at each monthly redemption of principal, each conversion, and the maturity date of the Debentures, in cash or, if we have procured shareholder approval for issuances in excess of the Issuable Maximum, shares of common stock. Interest paid in shares of common stock is paid at the lesser of the then conversion price or the average of the 5 lowest volume weighted average prices ("VWAP") for the common stock on the American Stock Exchange during the 20 consecutive trading days immediately prior to the applicable interest payment date.

We are required to redeem the Debentures in 18 equal monthly installments beginning August 1, 2006. The monthly redemption amounts may be paid in shares of common stock up to the Issuable Maximum, and must be paid in cash thereafter unless we receive shareholder approval to issue shares in excess of the Issuable Maximum. Redemptions paid in shares must be paid at a price equal to the lesser of the then conversion price or 90% of the average of the 5 lowest VWAPs for our common stock on the American Stock Exchange during the 20 consecutive trading days prior to the applicable redemption payment. We may not redeem the Debentures in shares unless certain conditions are met, some of which are that we have timely paid all amounts due under the Debentures, no other

specified event of default thereunder has occurred, and that the Underlying Shares are registered for resale. If an event of default occurs under the Debentures, we must pay to the holders, in cash, an amount that is equal to the sum of (i) at least 130% of the outstanding principal and all accrued and unpaid interest thereon, and (ii) any amounts then otherwise due to the holders. As long as least 10% in original principal amount of Debentures remains outstanding, we may not take certain actions, including incurrence of indebtedness beyond stated limits, amendments of governance documents, payments of dividends or distributions, and repurchases of more than a de minimis number of shares of common stock or Common Stock Equivalents.

Summary of Certain Terms of the Warrants

The warrants are exercisable in cash to purchase shares of our common stock beginning the 181st day after, and until the fifth anniversary of, the date of issue. The exercise price of the warrants shall be adjusted in the event of (i) stock splits, stock dividends, combinations, reclassifications, mergers, consolidations, distributions of assets or evidence of indebtedness, sales or transfers of substantially all assets, share exchanges or similar events, and (ii) dilutive issuances of common stock or Common Stock Equivalents at an effective price per share that is lower than the then exercise price, such adjustment to result in a "full-ratchet" reduction of the exercise price to the price per share sold in the dilutive issuance.

Copies of the Debentures and Warrants were filed as Exhibits 10.25 and 10.28 to our Annual Report on Form 10-K for the year ended December 31, 2005 filed with the SEC on March 15, 2006, which is incorporated herein by reference. The summary of the matters set forth above is qualified in its entirety by reference to such exhibits.

SELLING STOCKHOLDERS

This prospectus relates to the resale from time to time of up to a total of 7,300,000 shares of our common stock by the selling stockholders, comprising:

- 5,150,000 shares of common stock issuable upon conversion or redemption of, or as interest payments on, the Debentures;
- 1,950,000 shares of common stock issuable upon exercise of warrants; and
- 200,000 shares of common stock issuable upon exercise of a warrant issued to the placement agent as partial compensation for services rendered to us
 as placement agent for the financing described in this prospectus.

We issued the Debentures and warrants on February 14, 2006 to institutional investors named in the table below in a private placement exempt from the registration requirements of the Securities Act of 1933, as amended. Pursuant to a contemporaneous Registration Rights Agreement with these investors, we agreed to file a registration statement, of which this prospectus is a part, with the SEC to register the resale of the shares of our common stock issuable under the Debentures and the warrants, and to keep the registration statement effective until the date when all of the shares registered hereunder are sold or the date on which the shares registered hereunder can be sold without registration and without restriction as to the number of shares that may be sold.

The following table, based upon information currently known by us, sets forth as of February 14, 2006: (i) the number of shares held of record or beneficially by the selling stockholders as of such date, (ii) the number of shares that may be offered under this prospectus, and (iii) a footnote reference to any material relationship between Pro-Pharmaceuticals and the selling stockholder, if any. Beneficial ownership includes shares of common stock plus any securities held by the holder exercisable for or convertible into shares of common stock within sixty (60) days after February 14, 2006, in accordance with Rule 13d-3(d)(1) under the Securities Exchange Act of 1934, as amended. In addition, notwithstanding the sixty-day calculation period under Rule 13d-3(d)(1), for purposes of computing the beneficial ownership of the selling stockholders listed below, we have included the shares issuable upon exercise of the warrants issued to the selling stockholders on February 14, 2006 as described above (such shares, the "Deemed Outstanding Warrant Shares") even though these warrants are not exercisable until August 14, 2006. None of the selling stockholders is a broker-dealer or an affiliate of a broker-dealer.

| Name of Selling Stockholder | Common Stock Beneficially Owned Prior to the Offering (1) | Common Stock Issuable Upon Conversion or Redemption of, or as Interest on, 7% Convertible Debentures, or on Exercise of Warrants, Offered Pursuant to this Prospectus (2) | Common Stock Owned Upon Completion of this Offering (3)(4) | Percentage of Common Stock Owned Upon Completion of this Offering |
|--|---|---|---|---|
| Alexandra Global Master Fund Ltd. (5) | 710,000 | 710,000 | 0 | * |
| Bristol Investment Fund, Ltd. (6) | 866,429 | 710,000 | 156,429 | * |
| Cranshire Capital, L.P. (7) | 955,874 | 710,000 | 245,874 | * |
| DKR Soundshore Oasis Holding Fund Ltd. (8) | 710,000 | 710,000 | 0 | * |
| Iroquois Master Fund Ltd. (9) | 710,000 | 710,000 | 0 | * |
| JMG Capital Partners, L.P. (10) | 355,000 | 355,000 | 0 | * |
| JMG Triton Offshore Fund, Ltd. (11) | 355,000 | 355,000 | 0 | * |
| UBS Securities LLC f/b/o Kings Road Investments, Ltd. (12) | 1,420,000 | 1,420,000 | 0 | * |
| Smithfield Fiduciary, LLC (13) | 1,536,667 | 1,420,000 | 116,667 | * |
| Rodman & Renshaw Opportunity Fund, L.P. (14) | 460,202 | 200,000 | 260,202 | * |
| TOTAL | 8,079,172 | 7,300,000 | 779,172 | 2.8% |

* Amount less than one percent.

For each selling stockholder, the table above assumes the sale by that selling stockholder of all of its shares of common stock available for resale under this prospectus. Percentage calculations are based on 27,315,411 shares of our common stock issued and outstanding as of March 9, 2006.

- (1) Includes (a)(i) shares issuable upon conversion or redemption of, and as interest payments on, the 7% Convertible Debentures issued and sold to the selling stockholders (collectively, the "Debenture Shares"), and (ii) Deemed Outstanding Warrant Shares; and (b) as applicable, shares issuable upon exercise of (i) currently exercisable warrants, which shares are registered for resale and subject to a prospectus filed September 24, 2004 (SEC file no. 333-118907) covering all shares issuable upon exercise of warrants disclosed therein (collectively, the "September 2004 Warrant Shares"), (ii) currently exercisable warrants, which shares are registered for resale and subject to a prospectus filed May 13, 2004 (SEC file no. 333-115118) covering all shares issuable upon exercise of the warrants as disclosed therein (collectively, the "May 2004 Warrant Shares"), and (iii) currently exercisable warrants, which shares are registered for resale and subject to a prospectus filed Nay 13, 2004 (SEC file no. 333-115118) covering all shares issuable upon exercise of the warrants as disclosed therein (collectively, the "May 2004 Warrant Shares"), and (iii) currently exercisable warrants, which shares are registered for resale and subject to a prospectus filed November 14, 2003 (SEC file no. 333-109887) covering all shares issuable upon exercise of the warrants as disclosed therein (collectively, the "November 2003 Warrant Shares").
- (2) Each entry in the column represents, for the respective selling stockholder, the sum of Debenture Shares and Deemed Outstanding Warrant Shares.
- (3) Assumes solely for purpose of this table that such shares are still owned upon completion of the offering, which assumption is not intended to override the selling stockholder table in, as applicable, the prospectus covering the November 2003 Warrant Shares, the May 2004 Warrant Shares or the September 2004 Warrant Shares.
- (4) We do not know when or in what amounts a selling stockholder may offer shares for sale. The selling stockholders may not sell any or all of the shares offered by this prospectus. Because the selling stockholders may offer some or all of the shares pursuant to this offering, and because there are currently no agreements, arrangements or understandings with respect to any of the shares, we cannot estimate the number of the share that will be held by the selling stockholders after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling stockholders.
- (5) Includes (i) 515,000 Debenture Shares and (ii) 195,000 Deemed Outstanding Warrant Shares. Alexandra Investment Management, LLC, a Delaware limited liability company ("Alexandra"), serves as investment adviser to Alexandra Global Master Fund Ltd., a British Virgin Islands company ("Master Fund"). By reason of such relationship, Alexandra may be deemed to share dispositive power over the shares of common stock stated as beneficially owned by Master Fund. Alexandra disclaims beneficial ownership of such shares of common stock. Messrs. Mikhail A. Filimonov ("Filimonov") and Dimitri Sogoloff ("Sogoloff") are managing members of Alexandra. By reason of such relationship, Filimonov and Sogoloff may be deemed to share dispositive power over the shares of common stock stated as beneficially owned by Master Fund. Filimonov and Sogoloff disclaim beneficial ownership of such shares of common stock.
- (6) Includes (i) 515,000 Debenture Shares, (ii) 195,000 Deemed Outstanding Warrant Shares, (iii) 100,000 September 2004 Warrant Shares, (iv) 35,000 May 2004 Warrant Shares, and (v) 21,429 November 2003 Warrant Shares.
- (7) Includes (i) 515,000 Debenture Shares, (ii) 195,000 Deemed Outstanding Warrant Shares, (iii) 100,000 September 2004 Warrant Shares, (iv) 74,445 May 2004 Warrant Shares, and (v) 71,429 November 2003 Warrant Shares. Downsview Capital, Inc. ("Downsview"), of which Mitchell P. Kopin is President, is the general partner of Cranshire Capital L.P. and has the power to vote or dispose of the shares. Each of Downsview and Mr. Kopin disclaims beneficial ownership of the shares.
- (8) Includes (i) 515,000 Debenture Shares and (ii) 195,000 Deemed Outstanding Warrant Shares. The investment manager of DKR Soundshore Oasis Holding Fund Ltd. (the "Fund") is DKR Oasis Management Company LP (the "Investment Manager"). The Investment Manager has the authority to do any and all acts on behalf of the Fund, including voting any shares held by the Fund. Mr. Seth Fischer is the managing partner of Oasis Management Holding LLC, one of the general partners of the Investment Manager. Mr. Fischer has ultimate responsibility for trading with respect to the Fund. Mr. Fischer disclaims beneficial ownership of the shares.
- (9) Includes (i) 515,000 Debenture Shares and (ii) 195,000 Deemed Outstanding Warrant Shares. Joshua Silverman, the general partner of Iroquois Capital LP, may be deemed to have voting and dispositive over the shares of common stock. Mr. Silverman disclaims beneficial ownership of such shares.
- (10) Includes (i) 257,500 Debenture Shares and (ii) 97,500 Deemed Outstanding Warrant Shares. JMG Capital Partners, L.P. is a California limited partnership ("JMG Partners"). Its general partner is JMG Capital Management, LLC, a

Delaware limited liability company (the "Manager"), and an investment adviser that has voting and dispositive control over the investments of JMG Partners, including the shares of common stock offered by this prospectus. The equity interests of the Manager are owned by JMG Capital Management, Inc., a California corporation ("JMG Capital"), and Asset Alliance Holding Corp., a Delaware corporation. Jonathan M. Glaser is the Executive Officer and Director of JMG Capital and has sole investment discretion over the porfolio holdings of JMG Partners.

- (11) Includes (i) 257,500 Debenture Shares and (ii) 97,500 Deemed Outstanding Warrant Shares. JMG Triton Offshore Fund, Ltd., organized under the law of the British Virgin Islands (the "Fund"), is an international business company. The Fund's investment manager is Pacific Assets Management LLC, a Delaware limited liability company (the "Manager"), that has voting and dispositive control of the Fund's investments, including the shares of common stock offered by this prospectus. The equity interests of the Manager are owned by Pacific Capital Management, Inc., a California corporation ("Pacific"), and Asset Alliance Holding Corp., a Delaware corporation. The equity interests of Pacific are owned by Messrs. Roger Richter, Jonathan M. Glaser and Daniel A. David. Messrs. Glaser and Richter have sole investment discretion over the Fund's portfolio holdings.
- (12) Includes (i) 1,030,000 Debenture Shares and (ii) 390,000 Deemed Outstanding Warrant Shares. Kings Road Investments Ltd. ("Kings Road") is a wholly-owned subsidiary of Polygon Global Opportunities Master Fund ("Master Fund"). Polygon Investment Partners LLP and Polygon Investment Partners LP (the "Investment Managers"), Polygon Investments Ltd. (the "Manager"), the Master Fund, Alexander Jackson, Reade Griffith and Paddy Dear share voting and dispositive power over the securities held by Kings Road including the shares offered under this prospectus. The Investment Managers, the Manager and Messrs. Jackson, Griffith and Dear disclaim beneficial ownership of the securities held by Kings Road.
- (13) Includes (i) 1,030,000 Debenture Shares, (ii) 390,000 Deemed Outstanding Warrant Shares, and (iii) 116,667 September 2004 Warrant Shares. Highbridge Capital Management, LLC ("Highbridge") is the trading manager of Smithfield Fiduciary LLC ("Smithfield") and has voting control and investment discretion over securities held by Smithfield. Glen Dubin and Henry Swieca control Highbridge. Each of Highbridge and Messrs. Dubin and Swieca disclaims beneficial ownership of the securities held by Smithfield.
- (14) Includes (i) 200,000 Deemed Outstanding Warrant Shares, (ii) 132,667 September 2004 Warrant Shares, (iii) 61,806 May 2004 Warrant Shares, and (iv) 65,729 November 2003 Warrant Shares.

PLAN OF DISTRIBUTION

Each selling stockholder of our common stock and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of its shares of common stock on the American Stock Exchange or any other 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. A selling stockholder 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 entered into after the effective date of the registration statement of which this prospectus is a part;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act of 1933, as amended (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, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with NASDR Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with NASDR IM-2440.

In connection with the sale of the common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of the common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

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. Each selling stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the common stock. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).

We are required to pay certain fees and expenses incurred by us incident to the registration of the shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because selling stockholders may be deemed to be "underwriters" within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the selling stockholders.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the shares may be resold by the selling stockholders without registration and without regard to any volume limitations by reason of Rule 144(k) under the Securities Act or any other rule of similar effect or (ii) all of the shares have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of the common stock by the selling stockholders or any other person. We will make copies of this prospectus

available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

The validity of the shares of common stock being offered hereby has been passed upon for Pro-Pharmaceuticals, Inc. by Greenberg Traurig, LLP of Boston, Massachusetts.

EXPERTS

The financial statements incorporated in this prospectus by reference from our Annual Report on Form 10-K for the year ended December 31, 2005, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document we file with the SEC at the Public Reference Room (Room 1580), 100 F Street, N.W., Washington, D.C. 20549. You may also obtain information on the operations of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website (www.sec.gov) that contains the reports, proxy and information statements, and other information that we file electronically with the SEC.

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and the securities, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the above address or from the SEC's Internet site.

Our worldwide web address is www.pro-pharmaceuticals.com. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this document. Our web address is included in this document as an inactive textual reference only.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information contained in documents that we file with the the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 prior to the termination of this offering:

- (1) Our Annual Report on Form 10-K for the year ended December 31, 2005, filed with the SEC on March 15, 2006;
- (2) Our Current Report on Form 8-K filed with the SEC on February 15, 2006;
- (3) Our Current Report on Form 8-K filed with the SEC on March 10, 2006;
- (4) All our filings pursuant to the Securities Exchange Act of 1934 after the date of filing the initial registration statement and prior to effectiveness of the registration statement; and
- (5) The description of our common stock contained in our registration statement on Form 8-A filed with the SEC on September 9, 2003, including any amendments or reports filed for the purpose of updating that description.

You may request, orally or in writing, a copy of these documents, which will be provided to you at no cost, by contacting:

Pro-Pharmaceuticals, Inc. 189 Wells Avenue Newton, Massachusetts 02459 Attention: Anthony D. Squeglia, Vice President, Investor Relations Tel.: (617) 559-0033 E-mail: squeglia@pro-pharmaceuticals.com

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all costs and expenses to be incurred by Pro-Pharmaceuticals in connection with the preparation and filing of this Registration Statement. All amounts shown are estimates except for the SEC registration fee. We will pay all expenses in connection with the distribution of the shares of common stock being registered hereby, except for the fees and expenses of any counsel and other advisors that any selling stockholders may employ to represent them in connection with the offering and any brokerage or underwriting discounts or commissions paid to broker-dealers in connection with the sale of the shares.

| SEC Registration Fee | \$ 2,874 |
|----------------------------------|-------------------|
| Printing and Engraving Expenses | 2,000 |
| Accountants' Fees and Expenses | 15,000 |
| Legal Fees and Expenses | 30,000 |
| Transfer Agent Fees and Expenses | 500 |
| Miscellaneous | 1,626 |
| Total Expenses | 1,626 \$52,000 |

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

The registrant's By-laws, as amended to date, provide for indemnification of officers and directors to the fullest extent permitted by Section 7502 of Chapter 78 of the Nevada Revised Statutes ("NRS") (as from time to time amended), provided such officer or director acts in good faith and in a manner which such person reasonably believes to be in or not opposed to the best interests of the registrant, and with respect to any criminal matter, had no reasonable cause to believe such person's conduct was unlawful.

NRS 78.7502 states:

"1. A corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, except an action by or in the right of the corporation, by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with the action, suit or proceeding if he:

(a) Is not liable pursuant to NRS 78.138; or

(b) Acted in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, does not, of itself, create a presumption that the person is liable pursuant to <u>NRS 78.138</u> or did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, or that, with respect to any criminal action or proceeding, he had reasonable cause to believe that his conduct was unlawful.

2. A corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses, including amounts paid in settlement and attorneys' fees actually and reasonably incurred by him in connection with the defense or settlement of the action or suit if he:

(a) Is not liable pursuant to NRS 78.138; or

(b) Acted in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation.

Indemnification may not be made for any claim, issue or matter as to which such a person has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals therefrom, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court in which the action or suit was brought or other court of competent jurisdiction determines upon application that in view of all the circumstances of the case, the person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper.

3. To the extent that a director, officer, employee or agent of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections 1 and 2, or in defense of any claim, issue or matter therein, the corporation shall indemnify him against expenses, including attorneys' fees, actually and reasonably incurred by him in connection with the defense."

The registrant's By-laws also provide that to the fullest extent permitted by NRS 78.751 (as from time to time amended), the registrant shall pay the expenses of officers and directors of the Corporation incurred in defending a civil or criminal action, suit or proceeding, as they are incurred and in advance of the final disposition of such matter, upon receipt of an undertaking in form and substance acceptable to the Board of Directors for the repayment of such advances if it is ultimately determined by a court of competent jurisdiction that the officer or director is not entitled to be indemnified.

NRS 78.751 states:

"1. Any discretionary indemnification pursuant to <u>NRS 78.7502</u>, unless ordered by a court or advanced pursuant to subsection 2, may be made by the corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances. The determination must be made:

(a) By the stockholders;

(b) By the board of directors by majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding;

(c) If a majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding so orders, by independent legal counsel in a written opinion; or

(d) If a quorum consisting of directors who were not parties to the action, suit or proceeding cannot be obtained, by independent legal counsel in a written opinion.

2. The articles of incorporation, the bylaws or an agreement made by the corporation may provide that the expenses of officers and directors incurred in defending a civil or criminal action, suit or proceeding must be paid by the corporation as they are incurred and in advance of the final disposition of the action, suit or proceeding, upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined by a court of competent jurisdiction that he is not entitled to be indemnified by the corporation. The provisions of this subsection do not affect any rights to advancement of expenses to which corporate personnel other than directors or officers may be entitled under any contract or otherwise by law.

3. The indemnification pursuant to NRS 78.7502 and advancement of expenses authorized in or ordered by a court pursuant to this section:

(a) Does not exclude any other rights to which a person seeking indemnification or advancement of expenses may be entitled under the articles of incorporation or any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, for either an action in his official capacity or an action in another capacity while holding his office, except that indemnification, unless ordered by a court pursuant to <u>NRS 78.7502</u> or for the advancement of expenses made pursuant to subsection 2, may not be made to or on behalf of any director or officer if a final adjudication establishes that his acts or omissions involved intentional misconduct, fraud or a knowing violation of the law and was material to the cause of action.

(b) Continues for a person who has ceased to be a director, officer, employee or agent and inures to the benefit of the heirs, executors and administrators of such a person."

In addition, the registrant maintains directors' and officers' liability insurance which insures against liabilities that its directors and officers may incur in such capacities.

Reference is made to "Undertakings," below, for the registrant's undertakings in this registration statement with respect to indemnification of liabilities arising under the Securities Act of 1933, as amended (the "Securities Act").

ITEM 16. EXHIBITS

| Exhibit Number | Description of Document |
|-------------------|---|
| 5 | Opinion of Greenberg Traurig, LLP (including the consent of such firm) regarding the legality of the securities being offered |
| 23.1 | Consent of Greenberg Traurig, LLP (included as part of Exhibit 5 hereto) |
| 23.2 | Consent of Deloitte & Touche LLP, an independent registered public accounting firm |
| 24 | Powers of Attorney (included on signature page) |

ITEM 17. UNDERTAKINGS

The undersigned registrant hereby undertakes:

(1) To file, during any period in which it offers or sells securities, a post-effective amendment to this registration statement:

(a) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(b) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in the volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(c) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a), (b) and (c) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission pursuant to section 13 or section 15(d) of the Securities Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement of the securities offered therein, and the offering of the securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to Item 15, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

| II | - | 5 |
|----|---|---|
| | | |

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements of filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Newton, Massachusetts, on March 15, 2006.

PRO-PHARMACEUTICALS, INC. Registrant

By: _____ /s/ DAVID PLATT

David Platt President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Platt his/her true and lawful attorney-in-fact and agent with full power of substitution and re-substitution, for him/her and in his/her name, place and stead, in any and all capacities to sign any or all amendments (including, without limitation, post-effective amendments) to this Registration Statement, any related Registration Statement filed pursuant to Rule 462(b) under the Securities Act of 1933 and any or all pre- or post-effective amendments thereto, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming that said attorney-in-fact and agent, or any substitute or substitutes for him, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates stated.

| Signature | Title | Date |
|---|--|----------------|
| /s/ DAVID PLATT David Platt, Ph.D. | President, Chief Executive Officer and Director (Principal Executive Officer) | March 15, 2006 |
| /s/ CARL L. LUEDERS Carl L. Lueders | Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer) | March 15, 2006 |
| /s/ MILDRED S. CHRISTIAN Mildred S. Christian, Ph.D. | Director | March 15, 2006 |
| /s/ DALE H. CONAWAY Dale H. Conaway, D.V.M. | Director | March 15, 2006 |
| /s/ BURTON C. FIRTEL Burton C. Firtel | Director | March 15, 2006 |
| /s/ STEVEN PRELACK Steven Prelack | Director | March 15, 2006 |
| /s/ JERALD K. ROME Jerald K. Rome | Director | March 15, 2006 |
| /s/ DAVID H. SMITH David H. Smith | Director | March 15, 2006 |

Exhibit Index

| Exhibit <u>Number</u> 5 | Description of Document |
|-------------------------------|---|
| 5 | Opinion of Greenberg Traurig, LLP (including the consent of such firm) regarding the legality of the securities being offered |
| 23.1 | Consent of Greenberg Traurig, LLP (included as part of Exhibit 5 hereto) |
| 23.2 | Consent of Deloitte & Touche LLP, an independent registered public accounting firm |
| 24 | Powers of Attorney (included on signature page) |

March 15, 2006

Pro-Pharmaceuticals, Inc. 189 Wells Avenue Newton, Massachusetts 02458

Ladies and Gentlemen:

We have acted as counsel for Pro-Pharmaceuticals, Inc., a Nevada corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), of a registration statement on Form S-3 (the "Registration Statement"), including a prospectus to be filed with the Commission pursuant to Rule 424(b) of Regulation C promulgated under the Securities Act (the "Prospectus") relating to the offering of up to 7,300,000 shares (the "Shares") of the Company's common stock, par value \$.001 per share (the "Common Stock"). The Shares consist of (i) an estimated 5,150,000 Shares (the "Debenture Shares") that are issuable upon conversion or redemption of, and as interest payments on, the Company's 7% Convertible Debentures due February 2008 (the "Debentures") and (ii) an estimated 2,150,000 Shares (the "Warrant Shares") that are issuable upon the exercise of outstanding Common Stock purchase warrants (the "Warrants"). All of the Debenture Shares and Warrant Shares are being registered on behalf of security holders of the Company (the "Selling Securityholders").

As counsel to the Company, in connection with this opinion, we have examined and relied upon such records, documents, certificates and other instruments as in our judgment are necessary or appropriate to form the basis for the opinions set forth herein. In our examinations, we have assumed the genuineness of all signatures, the legal capacity of natural persons signing or delivering any instrument, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photocopies and the authenticity of the originals of such latter documents.

Based upon the foregoing, we are of the opinion that:

(i) The Debenture Shares to be issued upon the conversion or redemption of, and as interest payments on, the Debentures have been duly authorized and, when issued upon such conversion, redemption or as interest payments in accordance with the terms of the Debentures to which they relate, will be validly issued, fully paid and non-assessable; and

(ii) The Warrant Shares to be issued upon the exercise of the Warrants have been duly authorized and, when issued upon such exercise in accordance with the terms of the outstanding Warrants to which they relate, will be validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to this firm appearing under the heading "Legal Matters" in the Prospectus. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the General Rules and Regulations of the Commission thereunder.

Very truly yours,

/s/ Greenberg Traurig, LLP

Greenberg Traurig, LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 14, 2006, relating to the consolidated financial statements of Pro-Pharmaceuticals, Inc., appearing in the Annual Report on Form 10-K of Pro-Pharmaceuticals, Inc. for the year ended December 31, 2005 and to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ Deloitte & Touche LLP

Boston, Massachusetts March 15, 2006