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.)

7 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. Chief Executive Officer Pro-Pharmaceuticals, Inc.

7 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 the effective date of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please 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, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. \Box

| CALC | ULATION OF REGISTRAT | ION FEE | | |
|--|----------------------------|---|--|-------------------------------------|
| Title of each class of securities to be registered | Amount to be Registered | Proposed Maximum Offering Price Per Unit | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee(1) |
| Common Stock, \$0.001 par value per share | (2) | (3) | (3) | |
| Preferred stock, \$0.01 par value per share | (2) | (3) | (3) | |
| Warrants | (2) | (3) | (3) | |
| Units | (2) | (3) | (3) | |
| Total | | | \$10,000,000 | \$393 |

(1) Calculated pursuant to Rule 457(o) under the Securities Act.

(2) There are being registered hereunder such indeterminate number of shares of common stock and preferred stock, such indeterminate number of warrants to purchase common stock or preferred stock, and such indeterminate number of units as shall have an aggregate initial offering price not to exceed in the aggregate \$10,000,000. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. The proposed maximum initial offering price per security will be determined, from time to time, by the registrant in connection with the issuance by the registrant of the securities registered hereunder. The securities registered also include such indeterminate number of shares of common stock and preferred stock as may be issued upon conversion of or exchange for preferred stock that provide for conversion or exchange, upon exercise of warrants or pursuant to the anti-dilution provisions of any such securities. In addition, pursuant to Rule 416 under the Securities Act, the securities being registered hereunder include such indeterminate number of shares of common stock and preferred stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.

(3) The proposed maximum aggregate offering price per class of security will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered hereunder and is not specified as to each class of security pursuant to General Instruction II.D. of Form S-3 under the Securities Act.

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 or until the 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. We 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 it is not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, dated January 29, 2008

\$10,000,000

Common stock Preferred stock Warrants Units

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a "shelf" registration process. Under this shelf registration process, we may offer shares of our common stock and/or preferred stock and/or warrants to purchase any of such securities, either individually or in units, in one or more offerings, with a total value of up to \$10,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of those securities. We may also add, update or change in a prospectus supplement any of the information contained in this prospectus or in documents we have incorporated by reference into this prospectus. You should carefully read this prospectus and the prospectus supplements relating to the specific issue of securities together with additional information described under the heading, "Where You Can Find More Information," beginning on Page 17 of this prospectus, before you decide to invest in any of these securities.

Our common stock is quoted on The American Stock Exchange under the symbol "PRW". On January 28, 2008, the last reported sale price for the common stock was \$0.41 per share. The aggregate market value of the voting and non-voting common equity computed by reference to the price at which the common equity was sold, or the average bid and asked price of such common equity, as of December 31, 2007 was \$0.70. We have not offered any securities during the past twelve months pursuant to General Instruction I.B.6. of Form S-3.

In this prospectus, "Pro-Pharmaceuticals," "we," "us," and "our" refer to Pro-Pharmaceuticals, Inc., excluding, unless the context otherwise requires, its subsidiaries.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE "<u>RISK FACTORS</u>" ON PAGE 2.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

This prospectus may not be used to sell securities unless it is accompanied by a prospectus supplement.

Prospectus dated January , 2008

TABLE OF CONTENTS

| About Pro-Pharmaceuticals, Inc. | Page 1 |
|---|-----------|
| Recent Developments | 1 |
| Risk Factors | 2 |
| Special Note Regarding Forward-looking Statements | 6 |
| Use of Proceeds | 6 |
| Description of Capital Stock | 7 |
| Description of Warrants | 9 |
| Description of Units | 10 |
| Plan of Distribution | 11 |
| Legal Matters | 12 |
| <u>Experts</u> | 12 |
| Where You Can Find More Information | 13 |
| Incorporation of Certain Documents by Reference | 13 |
| | |

Our executive offices are located at 7 Wells Avenue, Newton, Massachusetts 02459. Our telephone number is (617) 559-0033, our facsimile number is (617) 928-3450 and our website address is www.pro-phramaceuticals.com. The information on our website is not incorporated by reference into this prospectus.

Important Notice about the Information Presented in this Prospectus

You should rely only on the information contained or incorporated by reference in this prospectus or any applicable prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. For further information, see the section of this prospectus entitled "Where You Can Find More Information." We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information appearing in this prospectus or any applicable prospectus supplement is accurate as of any date other than the date on the front cover of this prospectus or the applicable prospectus supplement, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any prospectus supplement or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

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.

We are a development-stage company engaged in the discovery, development, and commercialization of first-in-class, therapeutic compounds for advanced treatment of cancer, liver, microbial, and inflammatory diseases. Our initial focus is the development of a new generation of anti-cancer treatments using carbohydrate polymers to target deliver chemotherapeutics to reduce toxicity and increase efficacy. DAVANAT[®], the Company's lead pipeline candidate, is currently in Phase II trials for first-line treatment of colorectal and biliary cancer.

Our technology is also being used to rescue drugs that were shelved for toxicity or half-life issues, increase the solubility of existing drugs and as new chemical entities to treat diseases such as liver and kidney fibrosis. We have entered into a research collaboration with the Mount Sinai School of Medicine to study the anti-fibrotic effects of our novel carbohydrate compounds on liver fibrosis, and with Brigham and Women's Hospital to evaluate the anti-fibrotic effects of these compounds to treat acute and chronic kidney disease. Our first-in-class, novel carbohydrate compounds significantly reduced collagen expression and reversed fibrosis in animal models. Whereas previously, *in vitro* data indicated a reversal of fibrosis markers, in this proof-of-concept animal study, the compounds clearly reduced collagen expression and reversed liver fibrosis.

Our common stock is quoted on The American Stock Exchange under the symbol "PRW". Our executive offices are located at 7 Wells Avenue, Newton, Massachusetts 02459. Our telephone number is (617) 559-0033, fax number is (617) 928-3450 and our website address is www.pro-phramaceuticals.com. The information on our website is not incorporated by reference into this prospectus.

RECENT DEVELOPMENTS

During the quarter ended December 31, 2007, we undertook a private placement of our securities, pursuant to which we entered into Securities Purchase Agreements and Registration Rights Agreements with accredited investors, as purchasers of the offered securities. The terms of the Securities Purchase Agreements describe the offered securities as units (a "Unit"), priced at \$1.00 per Unit, comprised of (i) one share of our Series A 12% Convertible Preferred Stock (the "Series A Preferred Stock"); (ii) a Common Stock Purchase Warrant exercisable for \$1.50 to purchase one share of our common stock, and (iii) a Common Stock Purchase Warrant exercisable for \$2.00 to purchase one share of our common stock. In this private placement, to date, we sold 1,717,500 Units and received gross proceeds of \$1,717,500.

The Certificate of Designation of Preferences, Rights and Limitations of Series A 12% Convertible Preferred Stock states, among other things, that

- i. the Series A Preferred Stock accrues interest at 12% per annum payable at our option in cash or shares of common stock valued per share at the higher of \$1.00 or 100% of the value weighted average price of our shares of common stock for the 20 consecutive trading days prior to the applicable dividend payment date;
- ii. each share of Series A Preferred Stock is entitled to one vote on matters presented to stockholders for action;
- iii. each share of the Series A Preferred Stock is convertible any time at the option of the holder to one share of common stock, subject to adjustment in the event of a stock dividend, stock split or combination, reclassification or similar event; and
- iv. we have the right to require conversion if the closing price of the common stock exceeds \$3.00 for 15 consecutive trading days and a registration statement covering the resale of the shares of common stock issuable upon such mandatory conversion is then in effect.

In connection with this private placement, we have entered into a Registration Rights Agreement pursuant to which we agreed to file a registration statement with the SEC within six months after the closing of the private placement in order to register the resale of the shares of common stock issuable upon conversion of the Series A Preferred Stock and exercise of the warrants.

RISK FACTORS

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

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 September 30, 2007 was approximately \$33.9 million. 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 do not expect to 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.

In our Quarterly Report on Form 10-Q for the three and nine months ended September 30, 2007, we reported that we had \$1,138,000 of then available cash and cash equivalents In addition, we reported that through November 9, 2007, we raised approximately \$1,547,000 in a private placement with accredited investors who purchased "Units" of our securities. Each Unit was comprised of (i) one share of our Series A 12% Convertible Preferred Stock, (ii) a Common Stock Purchase Warrant exercisable for \$1.50 to purchase one share of our common stock, and (iii) a Common Stock Purchase Warrant exercisable for \$2.00 to purchase one share of our common stock. As a result we believed there was sufficient cash to fund operations through at least December 2007. To date, we have raised a total of approximately \$1,717,500 in this private placement.

We also previously disclosed that there are no assurances that we would be able to obtain additional financing on favorable terms, or at all. We currently have approximately \$1,200,000 million in cash and approximately \$900,000 in liabilities. After considering relevant conditions and events and management's plans we now expect to be able to fund operations through at least February 2008. The Company is actively pursuing additional sources of financing and other strategic alternatives. If we do not raise additional funds, substantial doubt will remain about our ability to continue as a going concern.

We may raise this 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.

Our Product Candidates Are Based on Novel Unproven Technologies. Our product candidates are 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.

-2-

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 these 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 David Platt, Ph.D., President and Chief Executive Officer; Anatole Klyosov, Ph.D., our chief scientist; and Eliezer Zomer, Ph.D., 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 CEO David Platt. Our CEO David 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 seeking 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 intent to contest these counterclaims vigorously. In October 2006, pursuant to a U.S. Bankruptcy Court approval of a liquidation of GlycoGenesys Marlborough Research and Development, Inc. (now known as Prospect Therapeutics, Inc.) purchased selected assets of GlycoGenesys including this litigation. If we do not prevail in this litigation, there could be a material adverse impact on our financial position, results of operations or cash flows.

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

-3-

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 you 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.

-4-

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 these 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 these 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 that 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

We Are Not in Compliance with the Continuing Listing Requirements of the American Stock Exchange. On June 22, 2007, we received a notice from the American Stock Exchange ("Amex") Listing Qualifications Department that it is reviewing our eligibility for continued listing. Specifically, the notice cited that we do not comply with the Amex's minimum \$2 million stockholders' equity when combined with losses from continuing operations and/or net losses in two of our last three years, as set forth in Section 1003 (a)(i) of the Amex Company Guide. To facilitate the review, we timely provided the Amex a specific plan and timeframe to achieve and sustain compliance with all Amex market listing requirements. On September 13, 2007, we received notice from Amex Staff that they accepted our plan of compliance and granted us an extension until October 13, 2008 to regain compliance with the continued listing standards. We will be subject to periodic review by Amex Staff during the extension period. Failure to make progress consistent with the plan or to regain compliance with the continued listing standards by the end of the extension period could result in us being de-listed from the American Stock Exchange. If we are delisted, our ability to raise capital may be diminished.

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. Listed on the American Stock Exchange since September 2003, our common stock, despite certain increases of trading volume from time to time, experiences periods when it could be considered "thinly traded." On March 21, 2007, we issued approximately 5.2 million shares to discharge approximately \$3.9 million of \$4.4 million outstanding obligations under our 7% Convertible Debentures. We issued the shares at a discount to the then trading price of our stock. Although resale of these shares will be subject to the volume limitations of Rule 144 under the Securities Act of 1933, as amended (as they are "restricted securities"), the former debenture holders and warrant holders may attempt to resell them as rapidly as Rule 144 permits. These sales could place downward pressure on the trading price of our stock.

We May Need to Undertake Finance Transactions with Persons Who May Not Intend to Become Long-Term Investors. Several of our recent equity finance transactions were structured as PIPEs (private investment in public equity). In general, these transactions attract purchasers who desire to buy securities at a discount to the trading price that may be profitably and rapidly resold into the public markets after the privately placed securities are registered. Rapid resales of stock and other factors related to these transactions often exert a downward pressure on the trading price of a stock. We may find, given our present stage of development, that we must undertake this type of finance transaction in the future.

-5-

Two Principal Stockholders Own Enough Shares to Substantially Influence The Company. Two of our principal stockholders, David Platt and James Czirr, collectively own or control approximately 23% of the outstanding shares of our common stock. Acting together, these stockholders 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, 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

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities offered by this prospectus for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies and investments, and the repayment, refinancing, redemption or repurchase of future indebtedness or capital stock. Additional information on the use of net proceeds from the sale of securities offered by this prospectus may be set forth in the prospectus supplement relating to that offering.

-6-

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock currently consists of 100,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of undesignated stock, \$0.01 par value per share.

The following summary of certain provisions of our common and undesignated stock does not purport to be complete. You should refer to our amended and restated certificate of incorporation and our by-laws, both of which are filed with the Securities & Exchange Commission ("SEC"). The summary below is also qualified by provisions of applicable law.

Common Stock

Holders of common stock are entitled to one vote per share on matters on which our stockholders vote. There are no cumulative voting rights. Holders of common stock are entitled to receive dividends, if declared by our board of directors, out of funds that we may legally use to pay dividends. If we liquidate or dissolve, holders of common stock are entitled to share ratably in our assets once our debts and any liquidation preference owed to any then-outstanding preferred stockholders are paid. All shares of common stock that are outstanding as of the date of this prospectus are fully-paid and non-assessable.

Preferred Stock

We are currently authorized to issue 10,000,000 shares of undesignated stock, with approximately 5,000,000 designated as Series A 12% Convertible Preferred Stock (the "Series A Preferred Stock"). Except for shares of Series A Preferred Stock, there are no shares of preferred stock outstanding as of the date of this prospectus. The Certificate of Designation of Preferences, Rights and Limitations of Series A Preferred Stock states, among other things, that

- 1. the Series A Preferred Stock accrues interest at 12% per annum payable at our option in cash or shares of common stock valued per share at the higher of \$1.00 or 100% of the value weighted average price of our shares of common stock for the 20 consecutive trading days prior to the applicable dividend payment date;
- 2. each share of Series A Preferred Stock is entitled to one vote on matters presented to stockholders for action;
- 3. each share of the Series A Preferred Stock is convertible any time at the option of the holder to one share of common stock, subject to adjustment in the event of a stock dividend, stock split or combination, reclassification or similar event; and
- 4. we have the right to require conversion if the closing price of the common stock exceeds \$3.00 for 15 consecutive trading days and a registration statement covering the resale of the shares of common stock issuable upon such mandatory conversion is then in effect.

Our board of directors has the authority to designate up to 5,000,000 shares of undesignated stock in one or more series and to fix the rights of each series. Prior to issuance of shares of each series, our Board of Directors will adopt resolutions and file a certificate of designation fixing for each series the designations, powers, preferences, conversion and other rights, voting powers, qualifications, limitations as to dividends, restrictions and terms and conditions of redemption. The preferred stock will, when issued, be fully paid and nonassessable and will not have, or be subject to, any preemptive or similar rights.

The prospectus supplement relating to the series of preferred stock offered by that supplement will describe the specific terms of those securities, including:

- 1. the title and stated value of that preferred stock;
- 2. the number of shares of that preferred stock offered, the liquidation preference per share and the offering price of that preferred stock;



- 3. the dividend rate(s), period(s) and/or payment date(s) or method(s) of calculation thereof applicable to that preferred stock;
- 4. whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends on that preferred stock will accumulate;
- 5. the voting rights applicable to that preferred stock;
- 6. the procedures for any auction and remarketing, if any, for that preferred stock;
- 7. the provisions for a sinking fund, if any, for that preferred stock;
- 8. the provisions for redemption, if applicable, of that preferred stock;
- 9. any listing of that preferred stock on any securities exchange;
- 10. the terms and conditions, if applicable, upon which that preferred stock will be convertible into shares of the Common Stock, including the conversion price (or manner of calculation of the conversion price) and conversion period;
- 11. a discussion of federal income tax considerations applicable to that preferred stock;
- 12. any limitations on issuance of any series of preferred stock ranking senior to or on a parity with that series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the affairs of the Company; and
- 13. any other specific terms, preferences, rights, limitations or restrictions of that preferred stock.

We believe the power to issue undesignated stock will provide our board of directors with flexibility in connection with certain possible corporate transactions. The issuance of undesignated stock, however, could adversely affect the voting power of holders of our common stock, restrict their rights to receive payment upon liquidation, and have the effect of delaying, deferring, or preventing a change in control.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company.

⁻⁸⁻

DESCRIPTION OF WARRANTS

General

We may issue warrants to purchase preferred stock (which we refer to as preferred stock warrants) or common stock (which we refer to as common stock warrants). Any of these warrants may be issued independently or together with any other securities offered by this prospectus and may be attached to or separate from the other securities. If warrants are issued, they will be issued under warrant agreements.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of warrant agreement that describes the terms of the warrants we are offering, and any supplemental agreements, before the issuance of the warrants. The following summaries of material terms and provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and any supplemental agreements applicable to those warrants. We urge you to read the applicable prospectus supplements related to the particular warrants that we sell under this prospectus, as well as the complete warrant agreement and any supplemental agreements that contain the terms of the warrants.

Terms of the Warrants

The applicable prospectus supplement will describe the following terms of preferred stock warrants or common stock warrants offered under this prospectus:

- (1) the title;
- (2) the securities issuable upon exercise;
- (3) the issue price or prices;
- (4) the number of warrants issued with each share of preferred stock or common stock;

(5) any provisions for adjustment of (a) the number or amount of shares of preferred stock or common stock receivable upon exercise of the warrants or (b) the exercise price;

- (6) if applicable, the date on and after which the warrants and the related preferred stock or common stock will be separately transferable;
- (7) if applicable, a discussion of the material United States federal income tax considerations applicable to the exercise of the warrants;
- (8) any other terms, including terms, procedures and limitations relating to exchange and exercise;
- (9) the commencement and expiration dates of the right to exercise; and
- (10) the maximum or minimum number that may be exercised at any time.

Exercise of Warrants

Each warrant will entitle the holder to purchase for cash the amount of shares of preferred stock or common stock at the applicable exercise price set forth in, or determined as described in, the applicable prospectus supplement. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Warrants may be exercised by delivering to us or any other person indicated in the applicable prospectus supplement (a) the warrant certificate properly completed and duly executed and (b) payment of the amount due upon exercise. As soon as practicable following exercise, we will forward the shares of preferred stock or common stock purchasable upon exercise. If less than all of the warrants represented by a warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants.

-9-

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units comprised of one or more shares of common stock, shares of preferred stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Capital Stock" and "Description of Warrants" will apply to each unit and to any common stock, preferred stock or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, the unit agent and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purposes and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

-10-

PLAN OF DISTRIBUTION

We may sell the securities being offered by us in this prospectus:

- directly to purchasers;
- through agents;
- through dealers;
- through underwriters; or
- through a combination of any of these methods of sale.

We and our agents and underwriters may sell the securities being offered by us in this prospectus from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to the prevailing market prices; or
- at negotiated prices.

We may solicit directly offers to purchase securities. We may also designate agents from time to time to solicit offers to purchase securities. Any agent, who may be deemed to be an "underwriter" as that term is defined in the Securities Act of 1933, as amended (the "Securities Act") may then resell the securities to the public at varying prices to be determined by that agent at the time of resale.

In the sale of the securities, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities, for whom they may act as agents, in the form of discounts, concessions or commissions. Underwriters may sell the securities to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agents. Underwriters, dealers and agents that participate in the distribution of the securities may be deemed to be underwriters under the Securities Act and any discounts or commissions they receive from us and any profit on the resale of securities they realize may be deemed to be underwriting discounts and commissions under the Securities Act. The applicable prospectus supplement will, where applicable:

- identify any underwriter or agent;
- describe any compensation in the form of discounts, concessions, commissions or otherwise received from us by each underwriter, dealer or agent and in the aggregate to all underwriters, dealers and agents;
- identify the purchase price and proceeds from that sale;
- identify the amounts underwritten;
- identify the nature of the underwriter's obligation to take the securities; and
- identify any quotation systems or securities exchanges on which the securities may be quoted or listed.

-11-

Underwriters, dealers, agents and other persons may be entitled, under agreements that may be entered into with us, to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments that they may be required to make in respect of these liabilities. Underwriters and agents may engage in transactions with, or perform services for, us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters, dealers, or other persons to solicit offers by certain institutions to purchase the securities offered by us under this prospectus pursuant to contracts providing for payment and delivery on a future date or dates. The obligations of any purchaser under any these contracts will be subject only to those conditions described in the applicable prospectus supplement, and the prospectus supplement will set forth the price to be paid for securities pursuant to these contracts and the commissions payable for solicitation of these contracts.

Any underwriter may engage in over-allotment, stabilizing and syndicate short covering transactions and penalty bids only in compliance with Regulation M of the Securities Exchange Act of 1934. If we offer securities in an "at the market" offering, stabilizing transactions will not be permitted. Overallotment involves sales in excess of the offering size, which creates a short position. Stabilizing transactions involve bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Syndicate short covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit the underwriters to reclaim selling concessions from dealers when the securities originally sold by the dealers are purchased in covering transactions to cover syndicate short positions. These transactions may cause the price of the securities sold in an offering to be higher than it would otherwise be. We do not make any representation or prediction as to the direction or magnitude of any effect that the transactions described above might have on the price of the securities. These transactions, if commenced, may be discontinued by the underwriters at any time.

Each series of securities offered under this prospectus will be a new issue with no established trading market, other than the common stock, which is listed on the American Stock Exchange. Any shares of common stock sold pursuant to a prospectus supplement will be listed on the American Stock Exchange, subject to official notice of issuance. Any underwriters to whom we sell securities for public offering and sale may make a market in the securities, but these underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We may elect to list any of the securities we may offer from time to time for trading on an exchange or on the American Stock Exchange, but we are not obligated to do so.

The anticipated date of delivery of the securities offered hereby will be set forth in the applicable prospectus supplement relating to each offering.

Underwriters, dealers and agents may engage in transactions with us or perform services for us in the ordinary course of business.

To comply with applicable state securities laws, the securities offered by this prospectus will be sold, if necessary, in such jurisdictions only through registered or licensed brokers or dealers. In addition, securities may not be sold in some states 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.

LEGAL MATTERS

Certain legal matters, including the legality of the securities offered, will be passed upon for us by our counsel, Greenberg Traurig, LLP, 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, 2006, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated by reference, which report expresses an unqualified opinion and includes explanatory paragraphs relating to the Company's adoption of Statement of Financial Accounting Standards No. 123(R), "Share-Based Payment"

-12-

effective January 1, 2006, the restatement of the Company's 2005 and 2004 consolidated financial statements, and the substantial doubt about our ability to continue as a going concern, and has 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.E., 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 world wide 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.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information contained in documents that we file with 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 the offering:

- (1) Our Annual Report on Form 10-K for the year ended December 31, 2006, filed with the SEC on April 2, 2007;
- (2) Our Quarterly Report on Form 10-Q for the three months ended March 31, 2007, filed with the SEC on May 15, 2007;
- (3) Our Quarterly Report on Form 10-Q for the three months ended June 30, 2007, filed with the SEC on August 10, 2007;
- (4) Our Quarterly Report on Form 10-Q for the three months ended September 30, 2007, filed with the SEC on November 14, 2007;
- (5) Our Current Report on Form 8-K filed with the SEC on April 11, 2007;
- (6) Our Current Report on Form 8-K filed with the SEC on April 17, 2007;
- (7) Our Current Report on Form 8-K filed with the SEC on June 20, 2007;
- (8) Our Current Report on Form 8-K filed with the SEC on June 27, 2006;
- (9) Our Current Report on Form 8-K filed with the SEC on July 2, 2007;
- (10) Our Current Report on Form 8-K filed with the SEC on August 3, 2007;

-13-

- (11) Our Current Report on Form 8-K filed with the SEC on August 9, 2007;
- (12) Our Current Report on Form 8-K filed with the SEC on September 14, 2007;
- (13) Our Current Report on Form 8-K filed with the SEC on September 24, 2007, as amended on September 27, 2007;
- (14) Our Current Report on Form 8-K filed with the SEC on October 4, 2007;
- (15) Our Current Report on Form 8-K filed with the SEC on October 9, 2007;
- (16) Our Current Report on Form 8-K filed with the SEC on October 15, 2007;
- (17) Our Current Report on Form 8-K filed with the SEC on October 22, 2007;
- (18) Our Current Report on Form 8-K filed with the SEC on October 30, 2007;
- (19) Our Current Report on Form 8-K filed with the SEC on November 1, 2007;
- (20) Our Current Reports on Form 8-K filed with the SEC on November 13, 2007;
- (21) Our Current Report on Form 8-K filed with the SEC on November 14, 2007;
- (22) Our Current Report on Form 8-K filed with the SEC on December 17, 2007;
- (23) Our Current Report on Form 8-K filed with the SEC on December 21, 2007;
- (24) Our Current Report on Form 8-K filed with the SEC on December 26, 2007;
- (25) Our Current Report on Form 8-K filed with the SEC on January 28, 2008;
- (26) Our Current Report on Form 8-K filed with the SEC on January 28, 2008; and
- (27) 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. 7 Wells Avenue Newton, Massachusetts 02459 Attention: Anthony D. Squeglia, Chief Financial Officer Tel.: (617) 559-0033 E-mail: squeglia@pro-pharmaceuticals.com

-14-

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.

| SEC Registration Fee | \$393 |
|----------------------------------|---------|
| Printing and Engraving Expenses | 0 |
| Accountants' Fees and Expenses | |
| Legal Fees and Expenses | |
| Transfer Agent Fees and Expenses | 500 |
| Miscellaneous | |
| Total Expenses | <u></u> |

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 |
|-------------------|---|
| *1.1 | Form of Common Stock Underwriting Agreement |
| *1.2 | Form of Preferred Stock Underwriting Agreement |
| *1.3 | Form of Warrants Underwriting Agreement |
| *1.4 | Form of Units Underwriting Agreement |
| *4.1 | Form of Warrant Agreement |
| *4.2 | Form of Unit Agreement |
| 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) |
| | |

* To be filed either by amendment or incorporated herein by reference in connection with the offering of specific securities.

ITEM 17. UNDERTAKINGS

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");
- (ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in the 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 volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) 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 by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this 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 purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the 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.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) If the Registrant is relying on Rule 430B:

(A) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the Registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the Registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned Registrant undertakes that in a primary offering of securities of such undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, such undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act 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 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the indemnification provisions described herein, 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 and will be governed by the final adjudication of such issue.

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 January 29, 2008.

PRO-PHARMACEUTICALS, INC. Registrant

By:

/s/ David Platt

David Platt 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. | Chief Executive Officer and Director (Principal Executive Officer) | January 29, 2008 |
| /s/ ANTHONY D. SQUEGLIA Anthony D. Squeglia | Chief Financial Officer (Principal Financial and Accounting Officer) | January 29, 2008 |
| /s/ MILDRED S. CHRISTIAN Mildred S. Christian, Ph.D. | Director | January 29, 2008 |
| /s/ DALE H. CONAWAY Dale H. Conaway, D.V.M. | Director | January 29, 2008 |
| /s/ HENRY S. ESBER Henry S. Esber, Ph.D. | Director | January 29, 2008 |
| /s/ JAMES T. GOURZIS James T. Gourzis, M.D., Ph.D. | Director | January 29, 2008 |

| Signature | Title | Date |
|--|------------------------|------------------|
| /s/ S. COLIN NEILL S. Colin Neill | Director | January 29,2008 |
| /s/ STEVEN PRELACK Steven Prelack | Director | January 29, 2008 |
| /s/ JERALD K. ROME Jerald K. Rome | Director | January 29, 2008 |
| /s/ THEODORE D . ZUCCONI Theodore D. Zucconi, Ph.D. | President and Director | January 29, 2008 |

EXHIBIT INDEX

| Exhibit Number | Description of Document |
|-------------------|---|
| *1.1 | Form of Common Stock Underwriting Agreement |
| *1.2 | Form of Preferred Stock Underwriting Agreement |
| *1.3 | Form of Warrants Underwriting Agreement |
| *1.4 | Form of Units Underwriting Agreement |
| *4.1 | Form of Warrant Agreement |
| *4.2 | Form of Unit Agreement |
| 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) |
| * To be fil | led either by amendment or incorporated herein by reference in connection with the offering of specific securities. |

Pro-Pharmaceuticals, Inc. 7 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"), relating to the registration of the following securities, having an aggregate initial offering price of up to \$10,000,000 (collectively, the "Securities"): (a) Common Stock, \$.001 par value per share ("Common Stock"), (b) Preferred Stock, \$.01 par value per share ("Preferred Stock"), (c) Warrants to purchase Common Stock or Preferred Stock ("Warrants"), and (d) Units consisting of any combination of Common Stock, Preferred Stock and Warrants ("Units"). Unless otherwise defined herein, capitalized terms used herein shall have the meanings assigned to them in the Registration Statement

In connection with our representation of the Company, and as a basis for the opinion hereinafter set forth, we have examined originals, or copies certified or otherwise identified to our satisfaction, of the following documents (hereinafter collectively referred to as the "Documents"):

- 1. The Registration Statement and the related form of prospectus included therein (the "Prospectus") in the form in which it was transmitted to the Commission under the Securities Act;
- 2. The Certificate of Incorporation of the Company, as amended (the "Charter");
- 3. The Bylaws of the Company, as amended (the "Bylaws");
- 4. Resolutions adopted by the Board of Directors of the Company (the "Board of Directors"), relating to the registration of the Securities on Form S-3; and
- 5. Such other documents and matters as we have deemed necessary or appropriate to express the opinion set forth below, subject to the assumptions, limitations and qualifications stated herein.

In expressing the opinions set forth below, 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. We have also assumed that the issuance and terms of the Securities to be issued by the Company from time to time will be approved by the Board of Directors, or a duly authorized committee thereof, in accordance with Nevada law and the Charter and Bylaws (with such approval referred to herein as the "Corporate Proceedings").

Based upon the foregoing, and subject to the assumptions, limitations and qualifications stated herein, it is our opinion that:

1. Upon completion of all Corporate Proceedings relating to the Common Stock, the Common Stock will be (assuming that, upon issuance, the total number of shares of Common Stock issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under the Charter) duly authorized and, when and if delivered against payment therefor in accordance with the Corporate Proceedings, will be validly issued, fully paid and nonassessable.

- 2. Upon completion of all Corporate Proceedings relating to the Preferred Stock, the Preferred Stock will be (assuming that, upon issuance, the total number of shares of Preferred Stock issued and outstanding will not exceed the total number of shares of Preferred Stock that the Company is then authorized to issue under the Charter) duly authorized and, when and if delivered against payment therefor in accordance with the Corporate Proceedings, will be validly issued, fully paid and nonassessable.
- 3. Upon the completion of all Corporate Proceedings relating to the Warrants, the issuance of the Warrants will be duly authorized (assuming that, upon issuance, the total number of shares of Common Stock and Preferred Stock to be issued pursuant to the Warrants, together with all then issued and outstanding shares of Common Stock and Preferred Stock, will not exceed the total number of shares of Common Stock and Preferred Stock, respectively, that the Company is then authorized to issue under the Charter).
- 4. Upon the completion of all Corporate Proceedings relating to the Units, the issuance of the Units will be duly authorized (assuming that, upon issuance, the total number of shares of Common Stock and Preferred Stock to be issued pursuant to the Units, together with all then issued and outstanding shares of Common Stock and Preferred Stock, will not exceed the total number of shares of Common Stock and Preferred Stock, respectively, that the Company is then authorized to issue under the Charter).

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 April 2, 2007, relating to the consolidated financial statements of Pro-Pharmaceuticals, Inc. (the "Company"), which report expresses an unqualified opinion and includes explanatory paragraphs relating to the Company's adoption of Statement of Financial Accounting Standards No. 123(R), "Share-Based Payment" effective January 1, 2006, the restatement of the 2005 and 2004 consolidated financial statements, and the substantial doubt about the Company's ability to continue as a going concern, appearing in the Annual Report on Form 10-K of Pro-Pharmaceuticals, Inc. for the year ended December 31, 2006, 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 January 29, 2008