PRO-PHARMACEUTICALS, INC.

1,965,974 Shares of Common Stock \$.001 par value

This prospectus relates to the offer and sale from time to time of up to 1,286,111 shares of our outstanding common stock, and up to 679,863 shares of our common stock issuable upon the exercise of warrants, which are held by certain selling stockholders named in this prospectus.

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 listed on the American Stock Exchange under the symbol "PRW." On May 10, 2004, the last reported sale price of our common stock was \$3.95 per share.

See "Risk Factors" beginning on page 3 to read about the risks you should consider carefully before buying shares of our common stock.

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 May 13, 2004.

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ABOUT THIS PROSPECTUS

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. 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 is not authorized. Furthermore, you should not consider this prospectus to be 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 is not authorized. Furthermore, you should not consider this prospectus to be 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 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.

ABOUT PRO-PHARMACEUTICALS, INC.

We are a development-stage pharmaceutical company that intends to identify, develop and seek regulatory approval of drugs and compositions that will reduce toxicity and improve the efficacy of currently existing chemotherapy drugs by reformulating or chemically upgrading the drugs with our proprietary carbohydrate technology. Our fundamental objective is to increase the body's tolerance to the drugs by enabling targeted delivery of the drugs in order to protect healthy tissue. Our targeting technology could also permit higher doses of the chemotherapy drugs because current dosage levels are generally limited so as to avoid overly toxic effects on healthy cells. Our carbohydrate-based drug targeting and delivery system may also have applications for drugs used to treat other diseases and chronic health conditions.

The U.S. Food and Drug Administration in June 2002 approved an Investigational New Drug application ("IND") for DAVANAT[®], our first drug delivery product, which authorized us to begin human clinical trials. In February 2003 we began Phase I trials of DAVANAT[®] alone and co-administered with 5-Fluorouracil ("5-FU"), a widely-used chemotherapy, in patients with colorectal cancer and are collecting resulting data. The FDA has also approved our amendment to broaden the scope of our IND to include all solid tumors. We are currently conducting preclinical animal experiments with additional IND candidates. We have not yet generated operating revenues.

In January 2004 we announced the initiation of Phase II clinical trials of DAVANAT[®]-1 (our DAVANAT[®]/5-FU combination) in cancer patients. This trial is part of a multi-center, open-label, single dose level study in patients with metastatic colorectal cancer who have failed standard chemotherapeutic regimens.

We were incorporated in January 2001. Our common stock trades on the American Stock Exchange under the symbol "PRW".

Our address is 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.

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 contained in this prospectus 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 which 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 part or all 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 December 31, 2003 was \$12,706,353. 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 curtail operations significantly. 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 \$7,607,818 of available cash and cash equivalents as of December 31, 2003, and net proceeds of approximately \$4,000,000 in a private placement that closed on April 7, 2004, we believe that we have sufficient capital to fund our operations through at least September 30, 2005. If actual expenses exceed our budget, however, we will need to raise additional capital sooner in order to meet our cash needs.

Our Product Candidates Will Be Based On Novel Unproven Technologies. Our product candidates will be based upon novel unproven technologies using proprietary carbohydrate compounds in "reformulations" 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.

We Have Only Recently Begun 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 no direct 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 no direct 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, a member of our Scientific Advisory Board and a consultant; and Dr. Eliezer Zomer, Vice President of 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 Have Been Named 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 counterclaims 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.

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 have recently been named as a counterclaim defendant in a lawsuit instituted by Dr. Platt - see "Risks Related to Pro-Pharmaceuticals" above.

Our Products Could Infringe The Intellectual Property Rights Of 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 might 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. Accordingly, there is a limited history of trading of our stock on a

national exchange and, based on varying trading volume to date, our stock could be considered "thinly traded." In the last six months of 2003 we undertook the registration on behalf of certain of our stockholders a total of 11,358,835 shares of our common stock and 832,635 shares of stock issuable upon exercise of immediately-exercisable warrants. In the registration statement of which this prospectus forms a part, we are registering an additional 1,286,111 shares of common stock as well as 679,863 shares of stock issuable upon exercise of immediately-exercisable warrants. 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.

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 47% of our outstanding shares of our common stock, and Dr. Platt and Mr. Czirr together own approximately 37%. 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 potential 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.

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," "will," "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 common stock will belong to that selling stockholder. We will not receive any proceeds from those sales.

SELLING STOCKHOLDERS

This prospectus relates to the resale from time to time of up to a total of 1,965,974 shares of our common stock by the selling stockholders, comprising:

- 1,286,111 shares of common stock;
- 618,057 shares of common stock issuable upon exercise of warrants with an exercise price of \$5.30 per share; and
- 61,806 shares of common stock issuable upon exercise of a warrant with an exercise price of \$5.30 per share, issued to Rodman & Renshaw, Inc. as partial compensation for services rendered to us as placement agent for the financing described below.

We issued 1,236,211 shares and 679,863 warrants on April 7, 2004 to institutional investors named in the table below in a private placement exempt from the registration requirements of the Securities Act. Pursuant to a Registration Rights Agreement dated April 7, 2004, 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 we issued, and which we will issue upon exercise of warrants, to those stockholders 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. In a prior private placement exempt from the registration requirements of the Securities Act, we issued 50,000 shares to the individual named in the table.

The following table, based upon information currently known by us, sets forth as of April 7, 2004 the number of shares held of record or beneficially by the selling stockholders as of such date and the number of shares that may be offered under this prospectus, and provides 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 the date of this prospectus, in accordance with Rule 13d-3(d)(1) under the Securities Exchange Act of 1934, as amended.

| Name of Selling Stockholder | Common Stock Owned Prior to the Offering | Common Stock Being Offered Pursuant to this Prospectus | Common Stock Owned Upon Completion of this Offering | Percentage of Common Stock Owned Upon Completion of this Offering |
|---|---|--|---|--|
| Gryphon Master Fund, LP ⁽¹⁾ | 279,763 | 208,334 | 71,429(18) | * |
| Fountainhead Fund ⁽²⁾ | 37,500 | 37,500 | 0 | 0 |
| Basso Equity Opportunity Holding Fund Ltd. ⁽³⁾ | 52,500 | 52,500 | 0 | 0 |
| Basso Multi-Strategy Holding Fund Ltd. ⁽³⁾ | 52,500 | 52,500 | 0 | 0 |
| Stonestreet, LP ⁽⁴⁾ | 83,333 | 83,333 | 0 | 0 |
| Portside Growth and Opportunity Fund ⁽⁵⁾ | 161,944 | 105,000 | 56,944(18) | * |
| OTAPE Investments LLC ⁽⁶⁾ | 84,524 | 41,667 | 42,857(18) | * |
| Topaz Partners ⁽⁷⁾ | 90,000 | 90,000 | 0 | 0 |
| Omicron Master Trust ⁽⁸⁾ | 328,572 | 300,000 | 28,572(18) | * |
| Bristol Investment Fund, Ltd. ⁽⁹⁾ | 153,929 | 105,000 | 48,929(18) | * |
| Delta Opportunity Fund, Ltd. ⁽¹⁰⁾ | 190,715 | 105,000 | 85,715(18) | * |
| Cranshire Capital L.P. ⁽¹¹⁾ | 294,763 | 223,334 | 71,429(18) | * |
| Alpha Capital AG ⁽¹²⁾ | 162,143 | 105,000 | 57,143(18) | * |
| Crescent International Ltd. ⁽¹³⁾ | 178,000 | 135,000 | 43,000(18) | * |
| Langley Partners, L.P. ⁽¹⁴⁾ | 140,715 | 105,000 | 35,715(18) | * |
| The Tail Wind Fund Limited ⁽¹⁵⁾ | 200,544 | 105,000 | 95,544(18) | * |
| Rodman & Renshaw, Inc. ⁽¹⁶⁾ | 127,535 | 61,806 | 65,729(18) | * |
| Panjak Tandon ⁽¹⁷⁾ | 300,000 | 50,000 | 250,000(19) | * |
| TOTAL | 2,918,980 | 1,965,974 | 953,006 | |

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 25,315,411 shares of our common stock issued and outstanding as of April 7, 2004.

- (1) Includes (i) 69,445 shares subject to warrants that are currently exercisable and (ii) 71,429 registered shares issuable upon the exercise of warrants that are currently exercisable and subject to a prospectus filed November 14, 2003 (SEC file no. 333-109887; such prospectus referred to in these footnotes as the "November 2003 Prospectus" and all previously registered shares issuable upon exercise of all warrants disclosed in the November 2003 Prospectus referred to in these footnotes as the "Warrant Shares").
- ⁽²⁾ Includes 12,500 shares subject to warrants that are currently exercisable.
- ⁽³⁾ Includes 17,500 shares subject to warrants that are currently exercisable.
- ⁽⁴⁾ Includes 27,778 shares subject to warrants that are currently exercisable.
- ⁽⁵⁾ Includes (i) 35,000 shares subject to warrants that are currently exercisable, (ii) 21,229 registered shares subject to the November 2003 Prospectus and (iii) 35,715 Warrant Shares subject to the November 2003 Prospectus. Ramius Capital Group, LLC is the investment adviser to Portside Growth and Opportunity Fund and consequently has voting control and investment discretion over securities held by Portside. Ramius Capital disclaims beneficial ownership of the securities held by Portside. Peter A. Cohen, Morgan B. Stark, Thomas W. Strauss and Jeffrey M. Solomon are the sole managing members of C4S & Co., LLC, the sole managing member of Ramius Capital. As a result, Messrs. Cohen, Stark, Strauss and Solomon may be considered beneficial owners of securities deemed to be beneficially owned by Ramius Capital. Messrs. Cohen, Stark, Strauss and Solomon disclaim beneficial ownership of all of such securities.
- ⁽⁶⁾ Includes (i) 13,889 shares subject to warrants that are currently exercisable and (ii) 42,857 Warrant Shares subject to the November 2003 Prospectus.
- ⁽⁷⁾ Includes 30,000 shares subject to warrants that are currently exercisable.
- ⁽⁸⁾ Includes (i) 100,000 shares subject to warrants that are currently exercisable and (ii) 28,572 Warrant Shares subject to the November 2003 Prospectus.
- ⁽⁹⁾ Includes (i) 35,000 shares subject to warrants that are currently exercisable, (ii) 27,500 registered shares subject to the November 2003 Prospectus and (iii) 21,429 Warrant Shares subject to the November 2003 Prospectus.
- ⁽¹⁰⁾ Includes (i) 35,000 shares subject to warrants that are currently exercisable, (ii) 57,143 registered shares subject to the November 2003 Prospectus and (iii) 28,572 Warrant Shares subject to the November 2003 Prospectus.
- ⁽¹¹⁾ Includes (i) 74,445 shares subject to warrants that are currently exercisable and (ii) 71,429 Warrant Shares subject to the November 2003 Prospectus.
- ⁽¹²⁾ Includes (i) 35,000 shares subject to warrants that are currently exercisable and (ii) 57,143 Warrant Shares subject to the November 2003 Prospectus.
- ⁽¹³⁾ Includes 45,000 shares subject to warrants that are currently exercisable and (ii) 43,000 Warrant Shares subject to the November 2003 Prospectus.
- ⁽¹⁴⁾ Includes 35,000 shares subject to warrants that are currently exercisable and (ii) 35,715 Warrant Shares subject to the November 2003 Prospectus.
- ⁽¹⁵⁾ Includes (i) 35,000 shares subject to warrants that are currently exercisable, (ii) 59,829 registered shares subject to the November 2003 Prospectus and (iii) 35,715 Warrant Shares subject to the November 2003 Prospectus.
- ⁽¹⁶⁾ Includes (i) 61,806 shares subject to warrants that are currently exercisable and (ii) 65,729 Warrant Shares subject to the November 2003 Prospectus. Rodman & Renshaw, Inc. is a registered broker-dealer and a member of the NASD.
- ⁽¹⁷⁾ Includes 250,000 previously registered shares subject to a prospectus filed January 26, 2004 (SEC file no. 333-111650) (the "January 2004 Prospectus").
- (18) Assumes solely for purposes of this table that such shares are still owned upon completion of the offering; such assumption is not intended to override the Selling Stockholder table in the November 2003 Prospectus disclosing that such shares are anticipated to be sold under such prospectus.

- (19) Assumes solely for purposes of this table that such shares are still owned upon completion of the offering; such assumption is not intended to override the Selling Stockholder table in the January 2004 Prospectus disclosing that such shares are anticipated to be sold under such prospectus.
- * Less than 1%.

PLAN OF DISTRIBUTION

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

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

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

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

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

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed us that it does not have any agreement or understanding, directly or indirectly, with any person to distribute the common stock.

We are required to pay all fees and expenses 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.

LEGAL MATTERS

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

EXPERTS

The financial statements incorporated into this document by reference from our Annual Report on Form 10-K for the year ended December 31, 2003, have been audited by Deloitte & Touche LLP, independent auditors, as stated in such firm's report which is also 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 facilities the SEC maintains at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549. You may also obtain copies of such material by mail from the Public Reference Section of the SEC (450 Fifth Street, N.W., Washington, D.C. 20549) at prescribed rates. Please call the SEC at 1-800-SEC-0330 for further information about the operation of the public reference rooms. Our SEC filings are also available at the SEC's website at www.sec.gov.

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. 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 them, 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, 2003 filed with the SEC on March 30, 2004;
- (2) Our Current Report on Form 8-K filed with the SEC on February 25, 2004;
- (3) Our Current Report on Form 8-K filed with the SEC on April 9, 2004;
- (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 (617) 559-0033