

4,610,000 Shares



Common Stock

Discovery Laboratories, Inc., is offering up to 4,610,000 shares of common stock. In connection with this offering, we will pay fees to SG Cowen & Co., LLC, as exclusive placement agent. See "Plan of Distribution" beginning on page S-5 of this prospectus supplement for more information regarding this arrangement.

Our common stock is quoted on the Nasdaq National Market under the symbol "DSCO." On February 17, 2005, the last reported sale price of our common stock as quoted on the Nasdaq National Market was \$6.49 per share.

Investing in our common stock involves significant risks. See "Risks Related to Our Business" set forth in our Annual Report on Form 10-K for the fiscal year ended December 31, 2003, and "Risk Factors" beginning on page S-3 of this prospectus supplement and page 6 of the accompanying prospectus for a discussion of some important risks you should consider before buying our common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities, or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Maximum Offering
Public offering price	\$ 5.75	\$ 26,507,500
Placement agent fee	\$ 0.29	\$ 1,325,375
Proceeds to Discovery Laboratories, Inc. (before expenses)	\$ 5.46	\$ 25,182,125

We estimate the total expenses of this offering, excluding the placement agent fee, will be approximately \$115,000. In addition, we have agreed to pay the fees and expenses of counsel for the placement agent in an amount not to exceed \$35,000 in the aggregate. The placement agent is not required to sell any specific number or dollar amount of the shares of common stock offered by this offering, but will use its commercially reasonable efforts to sell the shares of common stock offered. Pursuant to an escrow agreement among us, the placement agent and an escrow agent, certain funds received in payment for the shares sold in this offering will be deposited into an interest-bearing escrow account and held until we and the placement agent notify the escrow agent that the offering has closed, indicating the date on which the shares are to be delivered to the purchasers and the proceeds are to be delivered to us. Because there is no minimum offering amount required as a condition to closing in this offering, the actual public offering amount, placement agent fee and net proceeds to us, if any, in this offering are not presently determinable and may be substantially less than the maximum offering amounts set forth above.

SG Cowen & Co.

February 17, 2005

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You should rely only on the information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein. We have not authorized anyone to provide you with information different from that contained in any of these documents. The information contained in these documents is accurate only as of the date of each document, as the case may be, regardless of the time of delivery of this prospectus supplement and accompanying prospectus or of any sale of common stock. Our business, financial condition, results of operations and prospects may change after the date set forth in each document in which the information is presented.

We are making offers to sell and seeking offers to buy shares of common stock only in jurisdictions where offers and sales are permitted. You should not consider this prospectus supplement and the accompanying prospectus to be an offer to sell, or a solicitation of an offer to buy, shares of common stock if the person making the offer or solicitation is not qualified to do so or if it is unlawful for you to receive the offer or solicitation.

References in the prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein to “we,” “our,” “us” and the “company” refer to Discovery Laboratories, Inc., and its subsidiaries, unless the context requires otherwise.

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a “shelf” registration statement on Form S-3 that we filed with the Securities and Exchange Commission on December 19, 2003. This prospectus supplement describes the specific details regarding this offering, including the price, the amount of common stock being offered and the risks of investing in our common stock. The accompanying prospectus provides more general information. You should read both this prospectus supplement and the accompanying prospectus together with the additional information about us described in the section entitled “Where You Can Find More Information.”

If information contained in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on this prospectus supplement.

FORWARD LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, including in “Risk Factors,” contain, “Forward Looking Statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements regarding our expectations, beliefs, intentions or strategies for the future. We intend that all forward-looking statements be subject to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are only predictions and reflect our views as of the date they are made with respect to future events and financial performance. Forward-looking statements are subject to many risks and uncertainties which could cause our actual results to differ materially from any future results expressed or implied by the forward-looking statements.

Examples of the risks and uncertainties include, but are not limited to:

- the inherent risks and uncertainties in developing products of the type we are developing;
- delays in our preparation and filing of applications for regulatory approval;
- delays in the FDA’s or other health regulatory authorities’ approval or potential rejection of any applications we file, including the New Drug Application (NDA) we filed in April 2004 and the Marketing Approval Application (MAA) we submitted in October 2004;
- risks that any such regulatory authority will not approve the marketing and sale of a drug product, even after acceptance of the NDA or MAA filed by us, for any drug product;
- possible changes in our financial condition;
- the progress of our research and development (including the results of clinical trials being conducted by us and the risk that our lead product candidate, Surfaxin[®], or other drug candidates will not prove to be safe or useful for the treatment of certain indications);
- risks relating to the ability of the Company’s third party contract manufacturers to provide the Company with adequate supplies of drug substance and drug products for completion of any of the Company’s clinical studies or for commercialization;
- other risks relating to the lack of adequate supplies of drug substance and drug product for completion of any of the Company’s clinical studies;
- timely obtaining sufficient patient enrollment in our clinical trials;
- the impact of development of competing therapies and/or technologies by other companies;

- the risk that the Company will not be able to raise additional capital or enter into collaboration agreements (including strategic alliances for our aerosol and Surfactant Replacement Therapies);
- risk that the Company will not be able to develop a successful sales and marketing organization in a timely manner, if at all;
- risk that the Company's internal sales and marketing organization will not succeed in developing market awareness of the Company's products;
- risk that the Company's internal sales and marketing organization will not be able to attract or maintain qualified personnel;
- risks relating to the development of competing therapies and/or technologies by other companies;
- the progress of the regulatory approvals in connection with the conduct of our clinical trials and the marketing of our products;
- the additional costs and delays which may result from requirements imposed by the health regulatory authorities in connection with obtaining the required approvals. Companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials, even after obtaining promising earlier trial results; and
- Data obtained from tests are susceptible to varying interpretations, which may delay, limit or prevent regulatory approval.

The forward looking statements contained in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein or therein speak only of their respective dates. Except to the extent required by applicable laws, rules and regulations, we do not undertake any obligation or duty to publicly update or revise any forward-looking statements in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein or therein, whether as a result of new information, future events or otherwise.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider the following risk factors, as well as other information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus, before deciding to purchase any shares of our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may become important factors that affect us. If any of these risks occur, our business could suffer, the market price of our common stock could decline and you could lose all or part of your investment in our common stock.

Risks Related to This Offering

A substantial number of shares may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. Upon completion of this offering, we will have outstanding an aggregate of 53,061,946 shares of common stock, assuming no exercise of outstanding options or warrants. A substantial majority of the outstanding shares of our common stock are, and all of the shares sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act of 1933 unless these shares are purchased by affiliates. In addition, as of February 17, 2005, 9,690,871 shares of our common stock are issuable upon exercise of outstanding options and warrants granted by us, which also have been registered for resale on registration statements filed with the Securities and Exchange Commission.

Our management will have broad discretion with respect to the use of the proceeds of this offering.

We have not designated the amount of net proceeds we will receive from this offering for any particular purpose. Accordingly, our management will have broad discretion as to the application of these net proceeds and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds.

You will experience immediate dilution in the book value per share of the common stock you purchase.

Because the price per share of our common stock being offered hereby is substantially higher than the book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of \$5.75 per share in this offering, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$4.88 per share in the net tangible book value of the common stock. See "Dilution" on page S-4 for a more detailed discussion of the dilution you will incur in this offering.

DILUTION

The net tangible book value of our common stock on December 31, 2004, was approximately \$21.1 million, or approximately \$0.44 per share. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the aggregate number of shares of common stock outstanding. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of our common stock in this offering and the net tangible book value per share of our common stock immediately after this offering. After giving effect to the sale of 4,610,000 shares of our common stock in this offering at an offering price equal to \$5.75 per share, and after deducting the estimated placement agent fee and the estimated offering expenses, our net tangible book value at December 31, 2004, would have been approximately \$46.1 million, or approximately \$0.87 per share. This represents an immediate increase in the net tangible book value per share equal to \$0.43 per share to existing shareholders and an immediate dilution equal to \$4.88 per share to new investors purchasing shares of common stock in this offering. The following table illustrates this dilution:

Offering price per share	\$5.75
Net tangible book value per share as of December 31, 2004	\$0.44
Increase per share after the offering	<u>\$0.43</u>
Net tangible book value per share as of December 31, 2004, after giving effect to this offering	<u>\$0.87</u>
Dilution per share to new investors	\$4.88

The foregoing table does not take into account further dilution to new investors that could occur upon the exercise of outstanding warrants and options having a per share exercise price less than the per share offering price to the public in this offering. As of December 31, 2004, there were 48,434,438 shares of common stock outstanding, which does not include:

- 6,844,654 shares of common stock issuable upon exercise of options outstanding as of December 31, 2004, at a weighted average exercise price of \$5.69 per share; and
- 2,839,673 shares of common stock issuable upon exercise of warrants outstanding as of December 31, 2004, at a weighted average exercise price of \$7.63.

PLAN OF DISTRIBUTION

We have entered into a placement agent agreement, dated as of February 17, 2005, with SG Cowen & Co., LLC. We are offering the shares of our common stock through SG Cowen & Co., LLC, as our placement agent. Subject to the terms and conditions contained in the placement agent agreement, SG Cowen & Co., LLC has agreed to act as the placement agent for the sale of up to 4,610,000 shares of our common stock. SG Cowen & Co., LLC is not purchasing or selling any shares by this prospectus supplement or accompanying prospectus, nor is it required to arrange the purchase or sale of any specific number or dollar amount of shares, but has agreed to use commercially reasonable efforts to arrange for the sale of all 4,610,000 shares.

The placement agent agreement provides that the obligations of the placement agent and the investors are subject to certain conditions precedent, including the absence of any material adverse change in our business and the receipt of certain opinions, letters and certificates from our counsel, our independent auditors and us.

Confirmations and definitive prospectuses will be distributed to all investors who agree to purchase shares of the common stock, informing investors of the closing date as to such shares. We currently anticipate that closing of the sale of 4,610,000 shares of common stock will take place on or about February 24, 2005. Investors will also be informed of the date and manner in which they must transmit the purchase price for their shares.

On the scheduled closing date, the following will occur:

- we anticipate receipt of funds in the amount of the aggregate purchase price; and
- SG Cowen & Co., LLC will receive the placement agent fee in accordance with the terms of the placement agent agreement.

We will pay SG Cowen & Co., LLC an aggregate commission equal to 5% of the gross proceeds of the sale of shares of common stock in the offering. We will also pay the fees and expenses of counsel for SG Cowen & Co., LLC in an amount not to exceed \$35,000 in the aggregate. In no event will the total amount of compensation paid to SG Cowen & Co., LLC and other securities brokers and dealers upon completion of this offering exceed 8% of the maximum gross proceeds of the offering. The estimated offering expenses payable by us, in addition to SG Cowen & Co., LLC's fee, are approximately \$150,000, which includes legal, accounting and printing costs and various other fees associated with registering and listing the shares of common stock and also includes the fees and expenses of counsel for SG Cowen & Co., LLC in an amount not to exceed \$35,000 in the aggregate. After deducting certain fees due to SG Cowen & Co., LLC and our estimated offering expenses, we expect the net proceeds from this offering to be up to approximately \$25,032,125.

We have agreed to indemnify SG Cowen & Co., LLC against certain liabilities, including liabilities under the Securities Act of 1933, and liabilities arising from breaches of representations and warranties contained in the placement agent agreement. We have also agreed to contribute to payments SG Cowen & Co., LLC may be required to make in respect of such liabilities.

We, along with our executive officers and directors, have agreed to certain lock-up provisions with regard to future sales of our common stock for a period of 90 days after the offering as set forth in the placement agent agreement. In addition, we have agreed not to draw down upon our committed equity financing facility arrangement with Kingsbridge Capital Limited for a period of 90 days after the offering, or draw down upon such equity financing facility arrangement in an amount greater than \$5 million for a period of 90 days thereafter, as set forth in the placement agent agreement.

The placement agent agreement with SG Cowen & Co., LLC is included as an exhibit to our Current Report on Form 8-K that will be filed with the Securities and Exchange Commission in connection with the consummation of this offering.

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

Our common stock is traded on the Nasdaq National Market under the symbol "DSCO."

LEGAL MATTERS

The validity of the issuance of the shares of common stock offered hereby will be passed upon by Dickstein Shapiro Morin & Oshinsky LLP, New York, New York. Brown Raysman Millstein Felder & Steiner LLP, New York, New York, is acting as counsel for the placement agent in connection with various legal matters relating to the shares of common stock offered hereby.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). You may read and copy any document we file at the Commission's public reference rooms at 450 Fifth Street, N.W., Washington, D.C. 20549, 233 Broadway, New York, New York, and CitiCorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511. Please call the Commission at 1-800-SEC-0330 for further information on the public reference rooms. Many of our Commission filings are also available to the public from the Commission's Website at "<http://www.sec.gov>." We make available free of charge our annual, quarterly and current reports, proxy statements and other information upon request. To request such materials, please send an e-mail to ir@DiscoveryLabs.com or contact John G. Cooper, our Executive Vice President, Chief Financial Officer, at our address as set forth above.

We maintain a Website at "<http://www.DiscoveryLabs.com>" (this is not a hyperlink, you must visit this website through an Internet browser). Our Website and the information contained therein or connected thereto are not incorporated into this prospectus supplement.

We have filed with the Commission a registration statement on Form S-3 under the Securities Act relating to the common stock we are offering by this prospectus supplement. This prospectus supplement does not contain all of the information set forth in the registration statement, the exhibits, schedules and the prospectus attached thereto. Please refer to the registration statement, the exhibits, schedules and the prospectus attached thereto for further information with respect to us and the common stock offered hereby. Statements contained in this prospectus supplement as to the contents of any contract or other document are not necessarily complete and, in each instance, we refer you to the copy of that contract or document filed as an exhibit to the registration statement. You may read and obtain a copy of the registration statement and its exhibits and schedules from the Commission, as described in the preceding paragraph.

4,610,000 Shares



Common Stock

PROSPECTUS SUPPLEMENT

SG Cowen & Co.

February 17, 2005
