

DISCOVERY LABORATORIES, INC.
SUPPLEMENT DATED MAY 9, 2005
TO PROSPECTUS DATED AUGUST 11, 2003

This Supplement should be read in conjunction with the Prospectus, dated August 8, 2003, contained in Registration Statement No. 333-107836 (the "Registration Statement") of Discovery Laboratories, Inc., as amended and supplemented by (i) the Pre-Effective Amendment No. 1 to the Registration Statement filed with the Securities and Exchange Commission (the "Commission") on August 21, 2003, including the Prospectus, dated August 20, 2003, contained therein, and including the exhibits thereto, and (ii) the Prospectus Supplement, dated April 16, 2004, filed with the Commission on April 16, 2004. The Selling Stockholder table contained in such Prospectus, as amended and supplemented, is further supplemented, as set forth below, by (i) adding Sargon Capital International Fund Ltd. ("Sargon") as a new selling stockholder and (ii) replacing the entry for Baystar Capital II, L.P. ("Baystar") with the updated and additional information in the Selling Stockholders table set forth in this Supplement.

Our common stock, par value \$.001 per share, is listed on the Nasdaq National Market under the symbol "DSCO". On May 5, 2005, the closing sale price for the common stock, as reported on the Nasdaq National Market, was \$6.11. We advise you to obtain a current market quotation for the common stock.

Neither the SEC nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

Sargon may offer and sell a total of 18,579 shares of common stock under the Prospectus. The shares being offered by Sargon under the Prospectus were acquired upon the transfer from Baystar to Sargon of the warrant issued to Baystar in connection with a private placement consummated by us in June 2003. In connection with such private placement, we agreed to register with the Commission, under the Securities Act of 1933, the shares sold to the investors and their assignees in the private placement, including all shares issuable upon exercise of the warrants issued in such private placement.

The following table sets forth, to the best of our knowledge, based on information provided to us by Baystar and Sargon:

--the number of shares of common stock owned by Baystar and Sargon; and

--the number of shares being offered by Baystar and Sargon under the Prospectus.

All information with respect to share ownership has been provided by or on behalf of Baystar and Sargon as of a recent date. Because either selling stockholder may have sold, transferred or otherwise disposed of all or a portion of the shares of common stock that it owned since the date on which it provided us with the information regarding its share ownership in transactions exempt from the registration requirements of the Securities Act of 1933, no estimate can be given as to the number of shares of common stock that will be held by such selling stockholder after the offering.

The information appearing in the following table supplements or supersedes in part the information in the table under the heading "Selling Stockholder" in the Prospectus dated August 20, 2003, as amended and supplemented.

SELLING STOCKHOLDERS

Name	Number of Shares of common stock, not including Warrants, Beneficially Owned	Number of Shares represented by Warrants Beneficially Owned	Total Number of Shares of common stock Beneficially Owned +	Percentage Beneficially Owned Before Offering	Number of Shares to be Offered for the Account of Selling Stockholders	Number of Shares to be Owned after this Offering	Percentage to be Beneficially Owned After this Offering
Baystar Capital II, L.P.	92,895	0	92,895	0	92,895	0	*
Sargon Capital International Fund, Ltd.	0	18,579	18,579	0	18,579	0	*

* Less than 1%

+ The information contained in this table reflects "beneficial" ownership of common stock within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934. On May 5, 2005, we had 53,522,562 (not including treasury shares) shares of common stock outstanding. Beneficial ownership information reflected in the table includes shares of common stock issuable upon the exercise of outstanding warrants.

Please keep this supplement with your Prospectus.