

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

DISCOVERY LABORATORIES, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

94-3171943
I.R.S. Employer
Identification No.)

350 South Main Street, Suite 307, Doylestown, Pennsylvania 18901
(Address of Principal Executive Offices)

(Zip Code)

Discovery Laboratories, Inc. Amended and Restated 1998 Stock Incentive Plan
(Full title of the plan)

Robert Capetola, Ph.D., Chief Executive Officer
Discovery Laboratories, Inc.
350 South Main Street, Suite 307
Doylestown, Pennsylvania 18901
(Name and address of agent for service)

(215) 340-4699
(Telephone Number, Including Area Code, of Agent for Service)

Copies to:
Ira L. Kotel, Esq.
Roberts, Sheridan & Kotel,
The New York Practice of Dickstein Shapiro's Corporate & Finance Group
1177 Avenue of the Americas, 41st Floor
New York, New York 10036

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee(1)(2)
Shares of Common Stock	1,150,000	\$3.68	\$4,232,000	\$1,058

(1) Represents additional shares of Common Stock issuable under the Amended and Restated 1998 Stock Incentive Plan, as a result of the amendment of such plan to increase the number of shares issuable under such plan from 3,000,000 to 4,150,000. This Registration Statement shall also cover any additional shares of Common Stock which become issuable under the Discovery Laboratories, Inc. Amended and Restated 1998 Stock Incentive Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the Registrant's receipt of consideration, which results in an increase in the number of the outstanding shares of Registrant's Common Stock.

(2) Pursuant to paragraphs (c) and (h) of Rule 457 of the Securities Act of 1933, as amended (the "Securities Act"), the proposed maximum offering price per share of such shares of beneficial interest is estimated solely for the purpose of determining the registration fee and is based upon the average of the high and low prices per share of the Registrant's shares of beneficial interest

reported on the Nasdaq Small Cap Stock Market on August 7, 2001.

PROPOSED SALE TO TAKE PLACE AS SOON AFTER THE EFFECTIVE DATE OF THE REGISTRATION STATEMENT AS OPTIONS GRANTED UNDER THE PLAN ARE EXERCISED.

EXPLANATORY NOTES

AS PERMITTED BY THE RULES OF THE SECURITIES AND EXCHANGE COMMISSION, THIS REGISTRATION STATEMENT OMITTS THE INFORMATION SPECIFIED IN PART I OF FORM S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents previously filed with the Commission by the Registrant, are incorporated by reference in this Registration Statement:

1. The Registrant's Annual Report on Form 10-KSB filed with the Commission on April 2, 2001, for the fiscal year ended December 31, 2000, including any documents or portions thereof incorporated by reference therein;
2. The Registrant's Quarterly Report on Form 10-QSB filed with the Commission on May 11, 2001, and August 13, 2001 for the quarterly periods ending March 31, 2001, and June 30, 2001;
3. The Registrant's Definitive Proxy Statement dated May 7, 2001, for the Annual Meeting of Shareholders held on June 15, 2001, including any documents or portions thereof incorporated by reference therein;
4. The Registrant's Form 8-Ks and Form 8-K/As filed with the Commission on January 8, 2001, January 9, 2001, March 2, 2001, and May 7, 2001;
5. The Registrant's Registration Statement on Form S-8, filed on February 20, 2001 (File No. 333-33900).

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all such securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing of such documents. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities

Not applicable.

Item 5. Interests of Named Experts and Counsel

The validity of the securities being registered hereunder is being passed upon for the Registrant by Dickstein Shapiro Morin & Oshinsky LLP. Attorneys of Dickstein Shapiro Morin & Oshinsky LLP beneficially own approximately [13,000] shares of the Registrant's common stock and beneficially own warrants to purchase approximately [1,700] additional shares of the Registrant's common stock.

Item 6. Indemnification of Directors and Officers

Article Eighth of the Registrant's Certificate of Incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for (i) any breach of their duty of loyalty to the corporation or its stockholders, (ii) acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law or (iv) any transaction from which the director derives an improper personal benefit.

The Registrant's Bylaws provide that the Registrant shall indemnify its directors and officers, the directors and officers of any subsidiary of the Registrant and any other individuals acting as directors or officers of any other corporation at the request of the Registrant, to the fullest extent permitted by law.

The Registrant has entered into indemnification agreements with certain of its executive officers containing provisions that may require the Registrant, among other things, to indemnify such officers against liabilities that may arise by reason of their status or service as officers other than liabilities arising from willful misconduct of a culpable nature and to advance certain expenses incurred as a result of any proceeding against them as to which they could be indemnified. Registrant has obtained directors' and officers' liability insurance. These provisions in the Certificate of Incorporation and the By-Laws do not eliminate the officers' and directors' fiduciary duty, and in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each officer and director will continue to be subject to liability for breach of the officer's or director's duty of loyalty to the Registrant for acts or omissions not in good faith or involving intentional misconduct, for knowing violations of law, for actions leading to improper personal benefit to the officer or director and for payment of dividends or approval of stock repurchases or redemptions that are unlawful under Delaware law. The provisions also do not affect an officer's or director's responsibilities under any other law, such as the federal securities laws or state or federal environmental laws.

Item 7. Exemption from Registration Claimed

Not Applicable.

Item 8. Exhibits.

Number	Description
5.1	Opinion of Dickstein Shapiro Morin & Oshinsky LLP, regarding the validity of the securities being registered.

23.1 Consent of Dickstein Shapiro Morin & Oshinsky LLP (included in its opinion filed as Exhibit 5.1 hereto).

23.2 Consent of Ernst & Young LLP.

24.1 Power of Attorney (included on signature pages hereto).

Item 9. Undertakings.

The Company hereby undertakes:

(1) To file, during any period in which the Company offers or sells securities, a post-effective amendment to this Registration Statement to include any additional or changed material information regarding the plan of distribution;

(2) That for determining liability under the Securities Act of 1933, the Company will treat each post-effective amendment to this Registration Statement and each filing of our annual report, as a new registration statement of the securities offered, and the offering of the securities at that time will be deemed to be the initial bona fide offering; and

(3) To file a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Company pursuant to the Delaware General Corporation Law, the Company's Certificate of Incorporation and its By-Laws, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission that indemnification is against public policy as expressed in the Securities Act of 1933, and is, therefore, unenforceable. In the event that a claim for indemnification against liabilities arising under the Securities Act of 1933 (other than the payment by us of expenses incurred or paid by a director, officer, or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by that director, officer or controlling person in connection with the securities that the Company is registering, the Company 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 of whether the indemnification by the Company is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of that 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 for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Doylestown, Commonwealth of Pennsylvania on this 13th day of August, 2001.

DISCOVERY LABORATORIES, INC.

By: /s/ Robert J. Capetola, Ph.D.

Name: Robert J. Capetola, Ph.D.
Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below under the heading "Signature" constitutes and appoints David L. Lopez or Evan Myrianthopoulos his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities to sign any or all amendments to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the United States Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, 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 might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, each acting alone, or his substitute or substitutes, 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 indicated.

Signature -----	Title -----	Date -----
/s/ Robert J. Capetola, Ph.D. ----- Robert J. Capetola, Ph.D.	President & Chief Executive Officer and Director (Principal Executive Officer)	August 13, 2001
/s/ Deni M. Zodda, Ph.D. ----- Deni M. Zodda, Ph.D.	Sr. Vice President, Business Development (Principal Financial Officer)	August 13, 2001
/s/ Cynthia Davis ----- Cynthia Davis	Controller (Principal Accounting Officer)	August 13, 2001
/s/ Herbert McDade, Jr. ----- Herbert McDade, Jr.	Chairman of the Board of Directors	August 13, 2001
/s/ Max Link, Ph.D. ----- Max Link, Ph.D.	Director	August 13, 2001
/s/ Richard G. Power ----- Richard G. Power	Director	August 13, 2001
/s/ Mark C. Rogers, M.D. ----- Mark C. Rogers, M.D.	Director	August 13, 2001
/s/ Marvin Rosenthale, Ph.D. ----- Marvin Rosenthale, Ph.D.	Director	August 13, 2001
/s/ Mark S. Siegel ----- Mark S. Siegel	Director	August 13, 2001

OPINION OF DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP

[Letterhead of Dickstein Shapiro Morin & Oshinsky LLP]

August 9, 2001

Board of Directors
Discovery Laboratories, Inc.
350 South Main Street, Suite 307
Doylestown, Pennsylvania 18901

Discovery Laboratories, Inc. Amended and Restated 1998 Stock Incentive Plan

Dear Sirs:

We have acted as counsel for Discovery Laboratories, Inc., a Delaware corporation (the "Company"), in connection with the preparation of the Company's registration statement on Form S-8, and any amendments thereto (the "Registration Statement"), as filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"), for the registration under the Securities Act of up to 1,150,000 shares (the "Shares") of the Company's common stock, par value \$0.001 per share (the "Common Stock"), to be issued upon the exercise of stock options granted under the Company's Amended and Restated 1998 Stock Incentive Plan (the "Plan") as a result of an amendment to such Plan increasing the number of shares issuable under such Plan from 3,000,000 to 4,150,000. Capitalized terms used and not defined in this opinion have the meanings ascribed to them in the Registration Statement. You have requested that we furnish our opinion as to matters hereinafter set forth.

In rendering this opinion, we have relied upon, among other things, our examination of certain records of the Company, including without limitation, the Company's Certificate of Incorporation, as amended, and the Company's Bylaws, as amended, and resolutions of the Board of Directors. We have also examined certificates of the Company's officers and of public officials, and have reviewed such questions of law and made such other inquiries, as we have deemed necessary or appropriate for the purpose of rendering this opinion. As to various questions of fact material to this opinion, we have also relied upon representations and warranties of the Company and upon such certificates and other instruments of officers of the Company and public officials furnished to us by the Company, in each case without independent investigation or verification.

In addition, without any independent investigation or verification, we have assumed (i) the genuineness of all signatures, (ii) the authenticity of all documents submitted to us as originals and the conformity with the original documents of all documents submitted to us as certified, conformed or photostatic copies, (iii) the authority of all persons signing any document other than the officers of the Company, where applicable, signing in their capacity as such, (iv) the enforceability of all the documents we have reviewed in accordance with their respective terms against the parties thereto, and (v) the truth and accuracy of all matters of fact set forth in all certificates and other instruments furnished to us.

Based upon the foregoing, and subject to the limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares offered by the Company

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pursuant to the Registration Statement, when issued and paid for in accordance with the Plan, will be validly issued, fully paid and nonassessable.

No opinion is expressed herein with respect to any laws other than the Federal laws of the United States of America and, to the extent required by the foregoing opinion, the General Corporation Law of the State of Delaware. No opinion is expressed as to the effect that the law of any other jurisdiction may have upon the subject matter of the opinion expressed herein under conflicts of law principles, rules and regulations or otherwise.

We hereby consent to the filing of this opinion as Exhibit 5 to the Registration Statement and the reference to us under the heading "Legal Counsel" in the prospectus included in Part I of the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Securities Act of 1933 or the rules and regulations promulgated thereunder by the Securities and Exchange Commission.

The foregoing opinion is delivered to the Board of Directors of the

Company in connection with the Registration Statement, and may not be relied upon by any other person or for any other purpose.

We wish to call your attention to the fact that the fair market value of all securities of the Company that are beneficially owned by attorneys of this Firm exceeds \$50,000.

Very truly yours,

/s/ Dickstein Shapiro Morin & Oshinsky LLP

Consent of Independent Auditors

We consent to the incorporation by reference in the Registration Statement(Form S-8 to be filed on or about August 13, 2001) pertaining to the Discovery Laboratories, Inc. Amended and Restated 1998 Stock Incentive Plan of our report dated March 27, 2001, with respect to the consolidated financial statements of Discovery Laboratories, Inc. included in its Annual Report (Form 10-KSB) for the year ended December 31, 2000, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Philadelphia, Pennsylvania
August 7, 2001