
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Protalix BioTherapeutics, Inc.
(Exact name of registrant as specified in its Charter)

Florida
(State or other jurisdiction
of incorporation or organization)

65-0643773
(I.R.S. Employer
Identification Number)

**2 Snunit Street
Science Park
POB 455
Carmiel, Israel 20100
972-4-988-9488**

(Address of principal executive offices)

Protalix BioTherapeutics, Inc. 2006 Stock Incentive Plan, as amended June 17, 2012
(Full title of plan)

David Aviezer, Ph.D.
President and Chief Executive Officer
**2 Snunit Street
Science Park
POB 455
Carmiel, Israel 20100
972-4-988-9488**

CT Corporation System
111 Eighth Avenue
New York, NY 10011
Tel: (212) 894-8400
(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a Copy to:
James R. Tanenbaum, Esq.
Morrison & Foerster LLP
1290 Avenue of the Americas
New York, New York 10104
(212) 468-8000

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)	Proposed maximum offering price	Proposed maximum aggregate offering price	Amount of registration fee
Common stock, par value \$0.001 per share	1,600,000	\$ 5.66(2)	\$ 9,056,000(2)	\$ 1,037.82

(1) This Registration Statement also registers additional securities to be offered or issued upon adjustments or changes made to registered securities by reason of any stock splits, stock dividends or similar transactions as permitted by Rule 416(a) and Rule 416(b) under the Securities Act of 1933, as amended, or the Securities Act.

(2) Estimated pursuant to Rule 457(h) and Rule 457(c) solely for purposes of calculating the aggregate offering price and the amount of the registration fee based upon the average of the high and low prices reported for the shares on the NYSE MKT on July 11, 2012.

EXPLANATORY NOTE

Protalix BioTherapeutics, Inc., previously filed a registration statement on Form S-8 (SEC File No. 333-148983) with the Securities and Exchange Commission, or the Commission, in connection with the registration of an aggregate of 9,741,655 shares of our common stock to be issued under the Protalix BioTherapeutics, Inc. 2006 Stock Incentive Plan, or the Plan.

Pursuant to General Instruction E of Form S-8, we are filing this registration statement on Form S-8 solely to register an additional 1,600,000 shares of our common stock, par value \$.001 per share, available for issuance under the Plan. This increase was approved by our Board of Directors and our shareholders. Pursuant to Instruction E, the contents of Registration Statement on Form S-8 (SEC File No. 333-148983), including without limitation periodic reports that we filed, or will file, after this Registration Statement to maintain current information about our company, are hereby incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8, with the exception of Items 3 and 8 of Part II of such prior Registration Statement, each of which is amended and restated in its entirety herein.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The documents containing the information specified in Part I (plan and registrant information) will be delivered in accordance with Rule 428(b)(1) under the Securities Act. Such documents are not required to be, and are not, filed with the Commission, either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. These documents, and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

Upon written or oral request, any of the documents incorporated by reference in Item 3 of Part II of this Registration Statement, which are also incorporated by reference in the Section 10(a) prospectus, other documents required to be delivered to eligible participants pursuant to Rule 428(b), or additional information about the Plan, will be available without charge by contacting the Corporate Secretary, Protalix BioTherapeutics, Inc., 2 Snunit Street, Science Park, POB 455, Carmiel 20100, Israel, Telephone: +972-4-988-9488.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Commission allows us to “incorporate by reference” the information we file with the Commission, which means we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and certain information that we will later file with the Commission will automatically update and supersede this information. We incorporate by reference the documents listed below as well as any future filings made with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus until we sell all of the securities under this prospectus, except that we do not incorporate any document or portion of a document that is “furnished” to the Commission, but not deemed “filed.” The following documents filed with the Commission are incorporated by reference in this prospectus:

- our Annual Report on Form 10-K, for the year ended December 31, 2011;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2012;
- our Current Reports on Form 8-K filed with the Commission on February 9, 2012, February 15, 2012 (Items 2.02, 8.01 and 9.01 only), February 16, 2012, February 23, 2012 (Items 8.01 and 9.01 only), May 2, 2012, June 11, 2012; June 18, 2012; June 22, 2012 (Items 8.01 and 9.01 only); and July 2, 2012;
- our definitive Proxy Statement for our Annual Meeting of Shareholders held on June 17, 2012 filed with the Commission on May 21, 2012 (other than information furnished rather than filed); and
- the description of our common stock included in our registration statement on Form 8-A12B (File No. 001-33357) filed with the Commission on March 9, 2007, including any amendment or reports filed for the purpose of updating such description.

All documents filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this registration statement shall be deemed to be incorporated by reference in the registration statement and to be a part hereof from the date of filing of such documents (other than information that is furnished in such documents but deemed by the rules of the Commission not to have been filed). Any statement contained in a document 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 or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement. You may request and obtain a copy of these filings, at no cost, by writing or telephoning us at the following address or phone number:

2 Snunit Street
Science Park
POB 455
Carmiel 20100, Israel
+972-4-988-9488
Attn: Yossi Maimon, Chief Financial Officer

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

We indemnify our directors and officers to the maximum extent permitted by Florida law for the costs and liabilities of acting or failing to act in an official capacity. In addition, we have entered into indemnification agreements with each of our executive officers and directors to provide them with the maximum indemnification allowed under our amended and restated bylaws and applicable Florida law, including indemnification for all judgments and expenses incurred as the result of any lawsuit in which such person is named as a defendant by reason of being our director, officer or employee, to the extent indemnification is permitted by the laws of Florida. We believe that the indemnification agreements will enhance our ability to continue to attract and retain qualified individuals to serve as directors and officers.

The articles of association of Protalix Ltd., our wholly-owned subsidiary, allow it to exculpate, indemnify, and insure its office holders to the fullest extent permitted by Israeli law, as described below. Accordingly, Protalix Ltd. has entered into indemnification agreements with each of its officers and directors undertaking to indemnify them to the fullest extent permitted by Israeli law. As required by law, the indemnification is limited to events determined as foreseeable by the board of directors of Protalix Ltd. based on the activities of Protalix Ltd. upon adoption of the form of indemnification in 2006, and to an amount determined by the board of directors as reasonable under the circumstances.

We purchase and maintain a directors and officers liability insurance policy which covers the liability of our directors and officers on a "claims made" basis for their ongoing activity since December 28, 2006, with a limit of \$20,000,000 for any one occurrence and in the aggregate for the annual period with the addition of 20% of the above limit for legal defense costs (in Israel).

Furthermore, we purchase and maintain a Side A Excess and Difference In Conditions insurance which covers the non indemnifiable liability of our directors and officers on a "claims made" basis for their ongoing activity since December 28, 2006, with a limit of \$5,000,000 for any one occurrence and in the aggregate for the annual period with the addition of 20% of the above limit for legal defense costs (in Israel).

As of the date of hereof, no claims for directors and officers' liability insurance have been filed under those policies and neither us nor Protalix Ltd. is aware of any pending or threatened litigation or proceeding involving any of our directors or officers, or those of Protalix Ltd., in which indemnification is sought.

We have undertaken to fulfill and honor in all respects the obligations of Protalix Ltd. pursuant to any indemnification agreements between Protalix Ltd. and its directors in effect prior to December 31, 2006 and to provide any substitute director and the officers of Protalix Ltd. with similar indemnification agreements. We further agreed that any provision of Protalix Ltd.'s charter documents that relate to exculpation and indemnification of officers and directors of Protalix Ltd. will not be amended, repealed, or otherwise modified in any manner that would adversely affect the rights of the directors and officers, unless such modification is required by any applicable law.

Under Israeli law, an Israeli company may not exculpate an office holder from liability for a breach of the duty of loyalty of the office holder. An Israeli company may exculpate an office holder in advance from liability, in whole or in part, for damages caused due to a breach of duty of care owed to the company (other than in the event that such liability arises out of a breach of duty of care to the company upon distribution) but only if a provision authorizing such exculpation is inserted in its articles of association. Protalix Ltd.'s articles of association include such a provision.

An Israeli company may indemnify an office holder in respect of certain liabilities or expenses either in advance of an event or following an event provided a provision authorizing such indemnification is inserted in its articles of association. Protalix Ltd.'s articles of association contain such an authorization. An Israeli company may indemnify an office holder against the following liabilities or expenses incurred for acts performed as an office holder:

(A) financial liability imposed on or incurred by him or her in favor of another person pursuant to a judgment, settlement or arbitrator's award approved by a court;

(B) reasonable litigation expenses, including attorneys' fees, incurred by the office holder as a result of an investigation or proceeding instituted against him or her by an authority authorized to conduct such investigation or proceeding, provided that (i) no indictment was filed against such office holder as a result of such investigation or proceeding; and (ii) no financial liability, such as a criminal penalty, was imposed upon him or her as a substitute for the criminal proceeding as a result of such investigation or proceeding or, if such financial liability was imposed, it was imposed with respect to an offense that does not require proof of criminal intent or with regard to a monetary sanction;

(C) reasonable litigation expenses, including attorneys' fees, incurred by the office holder or imposed by a court in proceedings instituted against him or her by the company, on its behalf or by a third party or in connection with criminal proceedings in which the office holder was acquitted or as a result of a conviction for a crime that does not require proof of criminal intent; and

(D) A payment which the office holder is obligated to make to an injured party as set forth in Section 52(54)(a)(1)(a) of the Israeli Securities Law, 5278-1968, as amended ("Israeli Securities Law"), and reasonable litigation expenses, including attorneys' fees, that the office holder incurred in connection with a proceeding under Chapters H'3, H'4 or I'1 of the Israeli Securities Law.

An undertaking provided in advance by an Israeli company to indemnify an office holder with respect to (A), as abovementioned, must be limited to events which, in the opinion of the board of directors, can be foreseen based on the company's activities when the undertaking to indemnify is given, and to an amount or according to criteria determined by the board of directors as reasonable under the circumstances, and such undertaking shall detail the abovementioned events and amount or criteria. We are permitted to provide an office holder advanced payments to cover expenses covered under (D) above.

An Israeli company may insure an office holder against the following liabilities incurred for acts performed as an office holder:

- a breach of duty of care to the company or to a third party;
- a breach of duty of loyalty to the company, to the extent that the office holder acted in good faith and had a reasonable basis to believe that the act would not be detrimental to the interests of the company;
- a financial liability imposed on the office holder in favor of a third party in respect of an act performed in his or her capacity as an office holder; and
- A payment which the office holder is obligated to make to an injured party as set forth in Section 52(54)(a)(1)(a) of the Israeli Securities Law and reasonable litigation expenses, including attorneys' fees, that the office holder incurred in connection with a proceeding under Chapters H'3, H'4 or I'1 of the Israeli Securities Law.

An Israeli company may not insure, indemnify or exculpate an office holder against any of the following:

- a breach of duty of loyalty, except to the extent that the office holder acted in good faith and had a reasonable basis to believe that the act would not be detrimental to the interests of the company;
- a grossly negligent or intentional violation of an office holder's duty of care;

- an act or omission committed with intent to derive illegal personal benefit; or
- a fine, civil fine, monetary sanction or ransom levied against the office holder.

Under the Israeli law, exculpation, indemnification, and insurance of office holders must be approved by the board of directors of Protalix Ltd. and, in respect of directors of Protalix Ltd., also by the shareholders of Protalix Ltd. Such approvals were properly obtained.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors and officers or persons controlling us pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the Commission, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. With respect to insurance and indemnification for liabilities and expenses arising under the Israeli Securities Law, such insurance and indemnification is permissible only to the extent described in this Item 6.

We also have purchased insurance in the aggregate amount of \$1,000,000 for our directors and officers against all of the costs of such indemnification or against liabilities arising from acts or omissions of the insured person in cases where we may not have power to indemnify the person against such liabilities. Such policy will be in a run-off "tail" coverage phase as of December 31, 2006 and will cover those individuals who were our officers and directors prior to the merger we effected on such date for a period of six-years after such individual resigned his or her position with our company.

Item 7. Exemption from Registration Claims.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Exhibit Description	Method of Filing
4.1	Protalix BioTherapeutics, Inc. 2006 Stock Incentive Plan, as amended June 17, 2012	(Incorporated herein by reference to Appendix A to our Definitive Proxy Statement on Schedule 14A (File No. 001-33357), filed with the Commission on May 21, 2012)
5.1	Opinion of Morrison & Foerster LLP, New York, New York as to the legality of the securities being registered	Filed herewith
23.1	Consent of Morrison & Foerster LLP, New York, New York (included in Exhibit 5.1)	Filed herewith
23.2	Consent of Kesselman & Kesselman, Certified Public Accountant (Isr.), a member of PricewaterhouseCoopers International Limited, independent registered public accounting firm for the Registrant	Filed herewith
24.1	Power of Attorney (included on signature page)	Filed herewith

Item 9. 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;
- (ii) to reflect in the prospectus any facts or events arising after the effective date of the Registration statement (or most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in 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 change in volume and price represent no more than a 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) and (1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement;

(2) that, for the purpose 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 that time shall be deemed to be the initial *bona fide* offering thereof; and

(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.

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 Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered herein, 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 foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the 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, as amended, 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 Tel Aviv, State of Israel, on July 16, 2012.

PROTALIX BIOTHERAPEUTICS, INC.

By: /s/ David Aviezer

David Aviezer, Ph.D.

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Aviezer, Ph.D. and Yossi Maimon, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for the undersigned and in his or her name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to the Registration Statement and to file the same, with all exhibits thereto, and all documents in connection therewith, including any subsequent registration statement for the same offering that may be filed under Rule 462(b), with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or their 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, the following persons in the capacities and on the dates indicated have signed this Registration Statement below on behalf of the Registrant.

<u>/s/ David Aviezer</u> David Aviezer, Ph.D.	President, Chief Executive Officer (Principal Executive Officer) and Director	July 16, 2012
<u>/s/ Yossi Maimon</u> Yossi Maimon	Chief Financial Officer, Treasurer and Secretary (Principal Financial and Accounting Officer)	July 16, 2012
<u>/s/ Yoseph Shaaltiel</u> Yoseph Shaaltiel, Ph.D.	Executive VP, Research and Development and Director	July 16, 2012
<u>/s/ Zeev Bronfeld</u> Zeev Bronfeld	Interim Chairman of the Board	July 16, 2012
<u>/s/ Alfred Akirov</u> Alfred Akirov	Director	July 16, 2012
<u>/s/ Amos Bar Shalev</u> Amos Bar Shalev	Director	July 16, 2012
<u>/s/ Yodfat Harel Buchris</u> Yodfat Harel Buchris	Director	July 16, 2012
<u>/s/ Roger D. Komberg</u> Roger D. Komberg Ph.D.	Director	July 16, 2012

INDEX TO EXHIBITS

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23.1	Consent of Morrison & Foerster LLP, New York, New York (included in Exhibit 5.1)	Filed herewith
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24.1	Power of Attorney (included on signature page)	Filed herewith

[LETTERHEAD OF MORRISON & FOERSTER LLP]

July 16, 2012

Protalix BioTherapeutics, Inc.
2 Snunit Street
Science Park
POB 455
Carmiel 20100, Israel

Re: Protalix BioTherapeutics, Inc. – Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to Protalix BioTherapeutics, Inc., a Florida corporation (the “Company”), in connection with the preparation and filing with the Securities and Exchange Commission (the “Commission”) of a Registration Statement on Form S-8 (the “Registration Statement”), relating to the registration by the Company under the Securities Act of 1933, as amended (the “Securities Act”), of up to 11,341,655 shares of its common stock, \$.001 par value per share (the “Common Stock”), which will be issuable under the Protalix BioTherapeutics, Inc. 2006 Stock Incentive Plan, as amended June 17, 2012 (the “Plan”). This opinion is being rendered in connection with the filing of the Registration Statement.

As your counsel in connection with the Registration Statement, we have examined the proceedings taken by you in connection with the adoption of the Plan and the authorization of the issuance of the shares of common stock under the Plan (the “Plan Shares”), and such documents as we have deemed necessary to render this opinion. For the purpose of the opinion rendered below, we have assumed that in connection with the issuance of shares under the Plan, the Company will receive consideration in an amount not less than the aggregate par value of the Plan Shares covered by each such issuance. In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies.

Based upon and subject to the foregoing, it is our opinion that the Plan Shares, when issued and outstanding pursuant to the terms of the Plan, will be validly issued, fully paid and nonassessable.

It is understood that this opinion is to be used only in connection with the offer and sale of the Plan Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, that no opinion should be inferred as to any other matter. In rendering the foregoing opinion, we have relied, for matters involving Florida law, solely on the opinion of Shutts & Bowen LLP, Miami, Florida. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We consent to your filing a copy of this opinion as Exhibit 5.1 to the Registration Statement. We disclaim any undertaking to advise you of any subsequent changes of the facts stated or assumed herein or any subsequent changes in applicable law.

Very truly yours,

/s/ Morrison & Foerster LLP



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated February 27, 2012 relating to the financial statements and the effectiveness of internal control over financial reporting of Protalix BioTherapeutics, Inc., which appears in Protalix BioTherapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011.

Tel-Aviv, Israel
July 16, 2012

Kesselman & Kesselman
Certified Public Accountants (Isr.)
A member firm of PricewaterhouseCoopers International Limited

*Kesselman & Kesselman, Trade Tower, 25 Hamered Street, Tel-Aviv 68125, Israel,
P.O Box 50005 Tel-Aviv 61500 Telephone: +972 -3- 7954555, Fax:+972 -3- 7954556, www.pwc.com/il*
