

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

FORM S-3
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, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**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**

Approximate date of commencement of proposed sale to the public:
From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☒ 333-144801

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed maximum aggregate offering price (1)	Amount of registration fee (2)
Common stock, par value \$0.001 per share (3)	7,773,292 shares	\$38,866,460	\$1,193.20

(1) Calculated pursuant to Rule 457(o) of the Securities Act of 1933, as amended, based on the maximum aggregate offering price.

- (2) The registrant previously registered an aggregate of 5,714,286 shares of common stock on the Registration Statement on Form S-3 (File No. 333-144801) with an estimated maximum aggregate offering price equal to \$200,000,000, for which a filing fee of \$6,140 was previously paid. The maximum aggregate offering price of the shares registered under such registration statement and to be registered under this registration statement do not exceed, when combined, \$200,000,000; therefore, no additional registration fee is due.
- (3) For sale by Protalix BioTherapeutics, Inc.

This registration statement shall become effective upon filing with the Securities and Exchange Commission in accordance with Rule 462(b) under the Securities Act.

EXPLANATORY NOTE

We are filing this registration statement with the Securities and Exchange Commission pursuant to Rule 462(b) under the Securities Act of 1933, as amended. This registration statement relates to the public offering of securities contemplated by the Registration Statement on Form S-3 (File No. 333-144801), originally filed by us on July 24, 2007, as amended, and this registration statement is being filed for the sole purpose of increasing the amount of shares of common stock to be registered for sale by the Company.

The Commission declared the Registration Statement on Form S-3 (File No. 333-144801) effective on September 26, 2007. The contents of such registration statement, as amended on September 24, 2007, are incorporated by reference into this registration statement pursuant to Rule 462(b) under the Securities Act.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. *Exhibits.*

Exhibit Number	Exhibit Description	Method of Filing
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

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-3 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 the 24th day of October, 2007.

PROTALIX BIOTHERAPEUTICS, INC.

By: /s/ David Aviezer
David Aviezer, Ph.D.

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.

Signature	Title	Date
<u>/s/ David Aviezer</u> David Aviezer, Ph.D.	President, Chief Executive Officer (Principal Executive Officer) and Director	October 24, 2007
<u>/s/ Yossi Maimon</u> Yossi Maimon	Chief Financial Officer, Treasurer and Secretary (Principal Financial and Accounting Officer)	October 24, 2007
<u>/s/ *</u> Yoseph Shaaltiel, Ph.D.	Executive VP, Research and Development and Director	October 24, 2007
<u>/s/ *</u> Eli Hurvitz	Chairman of the Board	October 24, 2007
<u>/s/ *</u> Phillip Frost, M.D.	Director	October 24, 2007
<u>/s/ *</u> Amos Bar-Shalev	Director	October 24, 2007
<u>/s/ *</u> Zeev Bronfeld	Director	October 24, 2007
<u>/s/ *</u> Yodfat Harel Gross	Director	October 24, 2007
<u>/s/ *</u> Jane H. Hsiao, Ph.D.	Director	October 24, 2007
<u>/s/ *</u> Eyal Sheratzky	Director	October 24, 2007
<u>/s/ *</u> Sharon Toussia-Cohen	Director	October 24, 2007

* /s/ David Aviezer
By: David Aviezer, Ph.D.

INDEX TO EXHIBITS

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[LETTERHEAD OF MORRISON & FOERSTER LLP]

October 25, 2007

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

Re: Protalix BioTherapeutics, Inc. – Registration Statement on Form S-3

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-3 (the “Registration Statement”), relating to the registration by the Company under the Securities Act of 1933, as amended (the “Securities Act”), of up to 7,773,292 shares (the “Shares”) of its common stock, \$.001 par value per share (the “Common Stock”) to be offered and sold by the Company. The Registration Statement is being filed pursuant to Rule 462 under the Securities Act. This opinion is being rendered in connection with the filing of the Registration Statement. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined the Company’s articles of organization and bylaws, both as amended and currently in effect; such other records of the corporate proceedings of the Company and certificates of the Company’s officers as we have deemed relevant; and the Registration Statement and the exhibits thereto.

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 on the foregoing, and subject to the further assumptions and qualifications set forth below, it is our opinion that the Shares, when authorized, issued, and sold by the Company in the manner described in the Registration Statement will be duly authorized, validly issued, fully paid and non-assessable.

In rendering the opinions expressed above, we have further assumed that (i) the Shares will be offered, sold and delivered to, and paid for by, the purchasers thereof at the price specified in, and in accordance with the terms of, an agreement or agreements duly authorized, executed and delivered by the parties thereto, (ii) the Company will authorize the offering and issuance of the Shares and any other documents contemplated thereby or by the Registration Statement and will take any other appropriate additional corporate action, (iii) certificates, if required, representing the Shares will be duly executed and delivered and, to the extent required by any applicable agreement, duly authenticated and countersigned and (iv) a sufficient number of shares of Common Stock will be authorized and available for issuance and the consideration therefor will not be less than the par value of the shares of the Common Stock.

It is understood that this opinion is to be used only in connection with the offer and sale of the 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 hereby consent to your filing a copy of this opinion as Exhibit 5.1 to the Registration Statement. In giving such permission, we do not admit hereby that we come within the category of persons whose consent is required under Section 7 of the Securities Act, or the rules and regulations of the Commission thereunder. 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

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 30, 2007 relating to the financial statements which appears in Protalix BioTherapeutics, Inc.'s Annual Report on Form 10-K/A for the year ended December 31, 2006. We also consent to the references to us under the headings "Experts" in such Registration Statement.

Kesselman & Kesselman

Tel Aviv, Israel
October 23, 2007
