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

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): October 25, 2010 (October 25, 2010)

Protalix BioTherapeutics, Inc.

(Exact name of registrant as specified in its charter)

Florida (State or other jurisdiction of incorporation) 001-33357 (Commission File Number) 65-0643773 (IRS Employer Identification No.)

20100

2 Snunit Street Science Park, POB 455 Carmiel, Israel (Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code +972-4-988-9488

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Ruled-2(b)

o Pre-commencement communications pursuant to Rulee-4(c)

Item 7.01. Regulation FD Disclosure

On October 25, 2010, Protalix BioTherapeutics, Inc. (the "Company") issued a press release announcing that Dr. David Aviezer, the Company's President and Chief Executive Officer, will present at the Oppenheimer 21st Annual Healthcare Conference in New York and the World Orphan Drug Congress 2010 in Geneva. Dr. Aviezer's presentation at the Oppenheimer 21st Annual Healthcare Conference will take place on November 2 at 12:00 PM, ET, at the Waldorf Astoria Hotel, New York, NY. The presentation at the World Orphan Drug Congress 2010 will take place on November 30 at 9:10 AM, CEST, at the Crown Plaza Hotel, Geneva, Switzerland. A copy of the press release is furnished as Exhibit 99.1.

An audio webcast of Dr. Aviezer's presentation at the Oppenheimer 21st Annual Healthcare Conference will be available on the Company's website, <u>www.protalix.com</u>, on the event calendar page.

The information in Item 7.01 of this report (including Exhibit 99.1) is being furnished pursuant to Item 7.01 of Form 8-K and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed to be incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

99.1 Press release dated October 25, 2010.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

PROTALIX BIOTHERAPEUTICS, INC.

Date: October 25, 2010

By: /s/ David Aviezer

Name: David Aviezer, Ph.D.

Title: President and Chief Executive Officer

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Protalix BioTherapeutics to Present at Two Upcoming Healthcare Conferences

CARMIEL, Israel, October 25, 2010 — Protalix BioTherapeutics, Inc. (NYSE-AMEX: PLX, TASE:PLX), announced today that Dr. David Aviezer, the Company's President and Chief Executive Officer, will present at the Oppenheimer 21st Annual Healthcare Conference in New York and the World Orphan Drug Congress 2010 in Geneva.

The conference schedule is as follows:

Oppenheimer 21st Annual Healthcare Conference Corporate Presentation, November 2 at 12:00 PM ET Waldorf Astoria Hotel, New York, NY A webcast of this presentation will be available *at <u>www.protalix.com</u>* on the event calendar page

World Orphan Drug Congress 2010 Presentation, November 30 at 9:10 AM CEST Crown Plaza Hotel, Geneva, Switzerland

About Protalix

Protalix is a biopharmaceutical company focused on the development and commercialization of proprietary recombinant therapeutic proteins expressed through its proprietary plant cell based expression system. Protalix's ProCellExTM presents a proprietary method for the expression of recombinant proteins that Protalix believes will allow for the cost-effective, industrial-scale production of recombinant therapeutic proteins in an environment free of mammalian components and viruses. Protalix is also advancing additional recombinant biopharmaceutical drug development programs. Taliglucerase alfa is an enzyme replacement therapy in development under a Special Protocol Assessment with the FDA for Gaucher disease. The Company's new drug application (NDA) for taliglucerase alfa has been accepted by the U.S. Food and Drug Administration (FDA) and granted a Prescription Drug User Fee Act (PDUFA) action date of February 25, 2011.

Investor Contact:

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