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

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**FORM 8-K**

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

Date of Report (Date of Earliest Event Reported): June 4, 2009

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

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**Florida**  
(State or other jurisdiction  
of incorporation)

**000-27836**  
(Commission File Number)

**65-0643773**  
(IRS Employer  
Identification No.)

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

**20100**  
(Zip Code)

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

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

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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):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 7. Regulation FD**

On June 4, 2009, Protalix BioTherapeutics, Inc. (the “Company”) issued a press release announcing that Frost & Sullivan has presented the Company with Frost & Sullivan’s 2009 European Orphan Diseases Market Product Innovation of the Year Award. A copy of the press release is attached hereto as Exhibit 99.1.

**Item 9.01. Financial Statements and Exhibits****(d) Exhibits**

99.1 Press release dated June 4, 2009.

**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: June 4, 2009

By: /s/ David Aviezer  
Name: David Aviezer, Ph.D.  
Title: President and  
Chief Executive Officer

**Frost & Sullivan Presents Protalix Biotherapeutics with its 2009 European Orphan  
Diseases Market Product Innovation of the Year Award**

CARMIEL, Israel, June 4, 2009 (Business Wire) — Protalix BioTherapeutics, Inc. (NYSE-AMEX:PLX), announced today that Frost & Sullivan has presented the Company with its 2009 European Orphan Diseases Market Product Innovation of the Year Award. In presenting the award, Frost & Sullivan noted the Company's impressive display of technology and innovative efforts in developing prGCD, the Company's proprietary plant cell expressed recombinant form of human Glucocerebrosidase (GCD) for the treatment of Gaucher disease using its proprietary expression system, ProCellEx™.

Frost & Sullivan bestows the European Orphan Diseases Market Product Innovation Award on a company or individual that has performed new research which has resulted in technological innovation(s) that have brought, or are expected to bring, significant contributions to the industry in terms of adoption, change, and competitive posture. The award recognizes the quality and depth of the recipient's research and development program as well as the vision and risk-taking that enabled the recipient to undertake the research for which the recipient is being recognized.

In granting this award to Protalix, Frost & Sullivan noted that ProCellEx,™ the Company's proprietary expression system used to produce prGCD, has the potential to enhance drug properties such as better efficacy, longer half-life, cost effectiveness and better patient compliance. According to Frost & Sullivan, the Company's product candidates are expected to be cost effective when compared to existing therapies because they are produced using, a plant cell culture-based expression system. Existing enzyme replacement therapies are produced using mammalian cell-based expression systems, a production method that is expensive and results in increased production costs.

Frost & Sullivan further stated that "through the development of prGCD using the ProCellEx™ [production] system, Protalix Biotherapeutics has developed a product with capabilities and characteristics that positively differentiate it from the enzyme replacement therapies available in the market. The current [global market of Gaucher disease] is estimated around \$1.30 billion and there is only one enzyme replacement therapy currently available. By positioning its focus on a high profile and underserved area of orphan diseases, Protalix Biotherapeutics has moved to become a recognized name for product innovation in the area."

"Receiving this award from Frost & Sullivan provides further validation of our innovative approach to manufacturing proteins in a plant cell-based expression system," said Dr. David Aviezer, the Company's President and Chief Executive Officer. "We have completed patient enrollment in our pivotal Phase III clinical trial of prGCD for the treatment of Gaucher disease, and the trial's design was the product of an agreement with the FDA under its special protocol assessment process. We look forward to reporting the results of this trial in the fourth quarter of 2009."

**About Frost and Sullivan**

Frost & Sullivan, the Growth Consulting Company, partners with clients to accelerate their growth. The company's Growth Partnership Services, Growth Consulting and Career Best Practices empower clients to create a growth focused culture that generates, evaluates and

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implements effective growth strategies. Frost & Sullivan employs over 45 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 30 offices on six continents. For more information about Frost & Sullivan's Growth Partnerships, visit <http://www.frost.com>.

### **About Protalix BioTherapeutics**

Protalix is a biopharmaceutical company. Its goal is to become a fully integrated biopharmaceutical company focused on the development and commercialization of proprietary recombinant therapeutic proteins to be expressed through its proprietary plant cell based expression system. Protalix's ProCellEx(TM) 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. Protalix is conducting a phase III pivotal study for its lead product candidate, prGCD, to be used in enzyme replacement therapy for Gaucher disease, a lysosomal storage disorder in humans. Protalix has reached an agreement with the United States Food and Drug Administration on the final design of the pivotal phase III clinical trial through the FDA's Special Protocol Assessment (SPA) process. Protalix has completed enrollment for this study and is treating patients in its pivotal phase III clinical trial in North America, South America, Israel, Europe and South Africa. The study is monitored by an independent Data Monitoring Committee including experts in the field, who monitor the on going safety data, which has recently held their last scheduled meeting before the end of the trial. No serious adverse events have been reported in the study. Protalix is also advancing additional recombinant biopharmaceutical drug development programs.

### **Contact:**

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