

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 17, 2019

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

Delaware
(State or other jurisdiction
of incorporation)

001-33357
(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.)

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 communication 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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.001 par value	PLX	NYSE American

Item 8.01 Other Events

On October 17, 2019, Protalix BioTherapeutics, Inc. (the “Company”) issued a press release announcing positive 12-month on-treatment data from the first 16 out of the 22 adult patients enrolled in its BRIDGE Phase III study, an open label switch-over study evaluating the safety and efficacy of pegunigalsidase alfa (PRX-102), 1 mg/kg infused every two weeks, in up to 22 Fabry patients currently treated with agalsidase alfa (Replagal[®]) for at least two years and on a stable dose for at least six months. Pegunigalsidase alfa is the Company’s plant cell-expressed recombinant, PEGylated, cross-linked α -galactosidase-A drug candidate. A copy of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

99.1 [Press release dated October 17, 2019.](#)

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.

Date: October 17, 2019

PROTALIX BIOTHERAPEUTICS, INC.

By: /s/ Dror Bashan

Name: Dror Bashan

Title: President and Chief Executive Officer

**Protalix BioTherapeutics Announces Positive 12-Month Interim Data from the
BRIDGE Phase III Open Label Switch-Over Study of pegunigalsidase alfa
for the Treatment of Fabry Disease**

*12-Months On-treatment Data Indicate Significant Improvement in Kidney Function in Patients Switched from agalsidase alfa (Replagal®) to
pegunigalsidase alfa (PRX-102)*

*100% of the “progressing” patients and 66.7% in the “fast progressing” patients achieved the proposed therapeutic goals after switching to pegunigalsidase
alfa*

The switch to pegunigalsidase alfa was well tolerated

CARMIEL, Israel, October 17, 2019 /PRNewswire/ -- Protalix BioTherapeutics, Inc. (NYSE American:PLX) (TASE:PLX), a biopharmaceutical company focused on the development, production and commercialization of recombinant therapeutic proteins produced by its proprietary ProCellEx® plant cell-based protein expression system, today announced positive 12-month on-treatment data from the first 16 out of the 22 adult patients enrolled in its BRIDGE Phase III study.

“We previously announced positive preliminary results from 16 patients after six months in the BRIDGE study in September 2018, and these new results, after 12 months of treatment, further suggest the strong potential benefit of pegunigalsidase alfa on renal function for Fabry patients,” said Raul Chertkoff, M.D., Protalix’s Vice President, Medical Affairs.

The BRIDGE study is an open label switch-over study evaluating the safety and efficacy of pegunigalsidase alfa (PRX-102), 1 mg/kg infused every two weeks, in up to 22 Fabry patients currently treated with agalsidase alfa (Replagal®) for at least two years and on a stable dose for at least six months. Patients are screened and evaluated over three months while continuing agalsidase alfa treatment. Following the screening period, each patient was enrolled and switched from Replagal treatment to receive intravenous (IV) infusions of pegunigalsidase alfa 1 mg/kg every two weeks for 12 months. Patients have the option to receive pegunigalsidase alfa infusions in a home care setting based on infusion tolerability and country regulation.

The 12-month interim data from the first 16 of 22 adult patients enrolled (9 males and 7 females) demonstrate a mean improvement in kidney function, in both male and female patients, when switched from agalsidase alfa to pegunigalsidase alfa.

One hundred percent of the progressing patients, those with an estimated Glomerular Filtration Rate (eGFR) slope between -5 and -3 mL/min/1.73 m²/year, and 66.7% in the fast progressing group, with an eGFR slope < -5 mL/min/1.73 m²/year, achieved the proposed therapeutic goals (eGFR slope ≥ -3 mL/min/1.73 m²/year for progressing patients, and ≥ -5 mL/min/1.73 m²/year or more than 50% decrease in progression for fast progressing patients) after switching to pegunigalsidase alfa. The majority of the patients who completed the study rolled over to a long-term extension study, continuing to be treated with pegunigalsidase alfa.

In the study, after one year, the mean annualized eGFR slope improved from -5.10 mL/min/1.73m²/year while on agalsidase alfa to -0.23 mL/min/1.73m²/year on pegunigalsidase alfa. Baseline characteristics of these patients, ages 27 to 60 years, were: mean eGFR 75.45 in males and 85.78 mL/min/1.73m² in females, annualized pre-switching eGFR slope was -5.04 and -5.18 mL/min/1.73m²/year, in males and females respectively, mean residual leucocytes enzymatic activity 5.9% of lab normal mean in males and 27.9% in females, and plasma lyso-Gb₃ mean levels 53.6 and 13.8 nM, in males and females, respectively.

Pegunigalsidase alfa was found to be well tolerated in the study, with all adverse events being transient in nature without sequelae. Most of the patients who were eligible for home care therapy per country regulation were treated under a home care arrangement in which certain of the scheduled infusions were performed at the patients’ home.

About Fabry Disease

Fabry disease is an X-linked inherited disease that results from deficient activity of the lysosomal enzyme alpha galactosidase A resulting in progressive accumulation of abnormal deposits of a fatty substance called globotriaosylceramide (Gb₃) in blood vessel walls throughout a person’s body. Fabry disease occurs in one person per 40,000. Fabry patients inherit a deficiency of the enzyme alpha-galactosidase-A, which is normally responsible for the breakdown of Gb₃. The abnormal storage of Gb₃ increases with time and, accordingly, Gb₃ accumulates, primarily in the blood and in the blood vessel walls. The ultimate consequences of Gb₃ deposition range from episodes of pain and impaired peripheral sensation to end-organ failure – particularly of the kidneys, but also of the heart and the cerebrovascular system.

About pegunigalsidase alfa (PRX-102)

The Company's proprietary pegunigalsidase alfa is an investigational, plant cell culture expressed enzyme, and a chemically modified stabilized version of, the recombinant alpha-Galactosidase-A protein. Protein sub-units are covalently bound via chemical cross-linking using short PEG moiety, resulting in a more stable molecule with different pharmacokinetic parameters compared to the current available versions of the enzyme. In clinical studies, pegunigalsidase alfa has been observed to have a favorable circulatory half-life of approximately 80 hours. In addition, in a Fabry mouse model, pegunigalsidase alfa was observed to have favorable levels of enzyme activity in target organs affected by Fabry disease. The Company designed pegunigalsidase alfa to potentially address the continued unmet clinical need in Fabry patients of continuous disease progression, infusion reaction and immunogenicity.

About Protalix BioTherapeutics, Inc.

Protalix is a biopharmaceutical company focused on the development and commercialization of recombinant therapeutic proteins expressed through its proprietary plant cell-based expression system, ProCellEx[®]. Protalix was the first company to gain FDA approval of a protein produced through plant cell-based in suspension expression system. Protalix's unique expression system represents a new method for developing recombinant proteins in an industrial-scale manner. Protalix's pipeline consists of proprietary, potentially clinically superior versions of recombinant therapeutic proteins that target established pharmaceutical markets.

Protalix's first product manufactured by ProCellEx, taliglucerase alfa, was approved for marketing by the U.S. Food and Drug Administration (FDA) in May 2012 and, subsequently, by the regulatory authorities of other countries. Protalix has licensed to Pfizer Inc. the worldwide development and commercialization rights for taliglucerase alfa, excluding Brazil, where Protalix retains full rights.

Protalix's development pipeline includes the following product candidates: pegunigalsidase alfa, a modified version of the recombinant human alpha-GAL-A protein for the treatment of Fabry disease, in Phase III clinical trials (BALANCE, BRIDGE and BRIGHT studies); and OPRX-106, an orally delivered anti-inflammatory treatment, and alidornase alfa for the treatment of Cystic Fibrosis, both in Phase II clinical trials. Protalix has partnered with Chiesi Farmaceutici S.p.A., both in the United States and outside the United States, for the development and commercialization of pegunigalsidase alfa.

Forward-Looking Statements

To the extent that statements in this press release are not strictly historical, all such statements are forward-looking, and are made pursuant to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. The terms "expect," "anticipate," "believe," "estimate," "project," "plan," "should" and "intend," and other words or phrases of similar import are intended to identify forward-looking statements. These forward-looking statements are subject to known and unknown risks and uncertainties that may cause actual future experience and results to differ materially from the statements made. These statements are based on our current beliefs and expectations as to such future outcomes. Drug discovery and development involve a high degree of risk and the final results of a clinical trial may be different than the preliminary findings for the clinical trial. Factors that might cause material differences include, among others: risks related to our ability to identify and complete strategic alternatives on attractive terms or at all within the time period required to regain compliance with the continued listing standards of the NYSE American; risks related to our ability to continue as a going concern absent a refinancing or restructuring; risks related to any transactions we may effect in the public or private equity markets to raise capital to finance future activities; failure or delay in the commencement or completion of our preclinical and clinical trials which may be caused by several factors, including: risks that the FDA will not accept an application for accelerated approval of PRX--102 with the data generated to date or will request additional data or other conditions of our submission of any application for accelerated approval of PRX-102; risks related to our ability to continue as a going concern absent access to sources of capital we will need to finance future research and development activities, general and administrative expenses and working capital; risks related to any capital raising transactions we may effect in the public or private equity markets to raise capital to finance future research and development activities, general and administrative expenses and working capital; slower than expected rates of patient recruitment; unforeseen safety issues; determination of dosing issues; lack of effectiveness during clinical trials; inability to monitor patients adequately during or after treatment; inability or unwillingness of medical investigators and institutional review boards to follow our clinical protocols; and lack of sufficient funding to finance clinical trials; the risk that the results of the clinical trials of our product candidates will not support our claims of superiority, safety or efficacy, that our product candidates will not have the desired effects or will be associated with undesirable side effects or other unexpected characteristics; risks related to our ability to maintain and manage our relationship with Chiesi Farmaceutici and any other collaborator, distributor or partner; risks related to the amount and sufficiency of our cash and cash equivalents; risks related to the ultimate purchase by Fundação Oswaldo Cruz of alfataliglicerase pursuant to the stated purchase intentions of the Brazilian Ministry of Health of the stated amounts, if at all; risks related to the successful conclusion of our negotiations with the Brazilian Ministry of Health regarding the purchase of alfataliglicerase generally; risks related to our commercialization efforts for alfataliglicerase in Brazil; risks relating to the compliance by Fundação Oswaldo Cruz with its purchase obligations and related milestones under our supply and technology transfer agreement; risks related to the amount and sufficiency of our cash and cash equivalents; risks related to the amount of our future revenues, operations and expenditures; the risk that despite the FDA's grant of fast track designation for pegunigalsidase alfa for the treatment of Fabry disease, we may not experience a faster development process, review or approval compared to applications considered for approval under conventional FDA procedures; risks related to the FDA's ability to withdraw the fast track designation at any time; risks relating to our ability to make scheduled payments of the principal of, to pay interest on or to refinance our outstanding notes or any other indebtedness; our dependence on performance by third party providers of services and supplies, including without limitation, clinical trial services; delays in our preparation and filing of applications for regulatory approval; delays in the approval or potential rejection of any applications we file with the FDA or other health regulatory authorities, and other risks relating to the review process; our ability to identify suitable product candidates and to complete preclinical studies of such product candidates; the inherent risks and uncertainties in developing drug platforms and products of the type we are developing; the impact of development of competing therapies and/or technologies by other companies and institutions; potential product liability risks, and risks of securing adequate levels of product liability and other necessary insurance coverage; and other factors described in our filings with the U.S. Securities and Exchange Commission. The statements in this press release are valid only as of the date hereof and we disclaim any obligation to update this information, except as may be required by law.

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