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): **November 2, 2007**

Protalix BioTherapeutics, Inc.

(Exact name of registrant as specified in its charter)

Florida	
(State or other jurisdiction of incorporation)	
000-27836	**65-0643773**
(Commission File Number)	(IRS Employer Identification No.)
2 Snunit Street Science Park POB 455 Carmiel, Israel	**20100**
(Address of principal executive offices)	(Zip Code)

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

(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 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))

Item 7.01. Regulation FD Disclosure

On November 2, 2007, Protalix BioTherapeutics, Inc. (the "Company") issued a press release announcing that the Company would present at the CIBC World Markets 18th Annual Healthcare Conference being held at the Waldorf-Astoria Hotel in New York City on Monday, November 5, 2007 at 3:00 p.m. EST. The full text of the press release is set forth in Exhibit 99.1 to this Report.

A copy of the Company's presentation materials for the conference, appearing in Exhibit 99.2, is furnished and not filed pursuant to Regulation FD.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

99.1 Press release dated November 2, 2007, titled "Protalix BioTherapeutics to Present at CIBC World Markets 18th Annual Healthcare Conference."

99.2 Slide Presentation to be used at the CIBC World Markets 18th Annual Healthcare Conference on November 5, 2007.

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: November 2, 2007

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

Exhibit 99.1

Protalix BioTherapeutics to Present at
CIBC World Markets 18th Annual Healthcare Conference

CARMIEL, Israel – November 2, 2007 – Protalix BioTherapeutics, Inc. (Amex: PLX), today announced that Dr. David Aviezer, Ph.D., its President and Chief Executive Officer, will present at the CIBC World Markets 18th Annual Healthcare Conference. Dr. Aviezer's presentation will take place at 3:00 EST on Monday, November 5th at the Waldorf-Astoria Hotel in New York City.

Dr. Aviezer's presentation may be heard live via a simulcast link at http://www.veracast.com/webcasts/cibcwm/healthcare07/84112115.cfm. Following the live presentation, the archived webcast will be available for a period of 90 days after the presentation.

About Protalix BioTherapeutics, Inc.

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™ presents a proprietary method for the expression of recombinant proteins that Protalix believes is safe and scalable and will allow for the cost-effective, industrial-scale production of recombinant therapeutic proteins. Protalix has initiated enrollment and treatment of patients in its pivotal phase III clinical trial in the United States of its lead product candidate, prGCD, for its enzyme replacement therapy for Gaucher disease, a lysosomal storage disorder in humans, and 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 is also advancing additional recombinant biopharmaceutical drug development programs.

Safe Harbor Statement:

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. 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. Factors that might cause such a material difference include, among others, uncertainties related to the ability to attract and retain partners for our technologies and products under development, the identification of lead compounds, the successful preclinical development of our products, the completion of clinical trials, the review process of the FDA, foreign regulatory bodies and other governmental regulation, and other factors described in our filings with the Securities and Exchange Commission. The statements are valid only as of the date hereof and we disclaim any obligation to update this information.

For additional information, contact Protalix BioTherapeutics at:
investors@protalix.com

AMEX IR Alliance for Protalix BioTherapeutics
Lee Roth / David Burke
212-896-1209 / 1258
lroth@kcsa.com / dburke@kcsa.com

Protalix Biotherapeutics

CIBC Healthcare Conference
November 5th, 2007

Dr. David Aviezer
President and CEO

Protalix Biotherapeutics

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Protalix
Biotherapeutics

Company Highlights

prGCD for Gaucher Disease

- **Lead product candidate targeting a large, growing market**
  - Similar to Cerezyme, the only approved enzyme replacement therapy
  - Currently in Phase III trials under SPA for treating Gaucher Disease
  - Gaucher Disease , a growing $1 billion market, is a severe and chronic condition

Proprietary Protein Expression System

- **Proprietary ProCellEx™ plant cell-based expression system offers significant advantages over existing expression systems**
  - New paradigm for developing recombinant proteins with equivalent activity and structure to their naturally-produced human counterparts
  - Enables penetration of patent-protected markets
  - Greater cost-effectiveness and Safety

Targeting Commercially Viable Proteins

- **Biologically equivalent of superior versions of proteins with known biological mechanisms of action, validated markets and clearer regulatory path**
  - Substantially less development and regulatory risk
  - Pipeline focused on complex therapeutic proteins, including Fabry disease and female infertility disorders and other novel and biogeneric indications

World Class Management & Board

- **Experienced board and management team**
  - Mr. Eli Hurvitz, Chairman of the Board, Chairman of the Teva
  - Dr. Phillip Frost, former Chairman and CEO of IVAX
  - Dr. David Aviezer, Director, President and CEO

Protalix Biotherapeutics

Experienced Management and World Class Board and Advisors

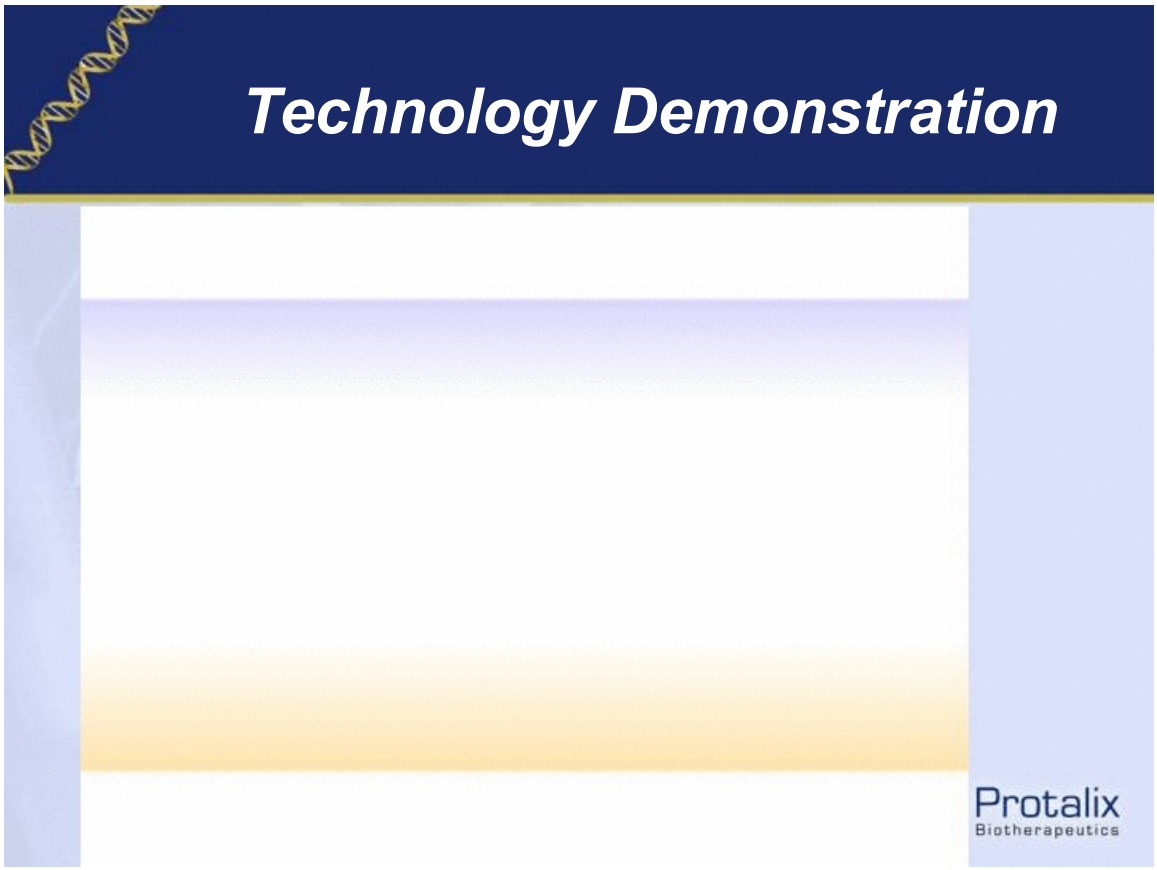
Name	Title	Experience
KEY MANAGEMENT		
Dr. David Aviezer	President & CEO	ProChon Biotech, American Cyanamid, Ph.D. in Molecular Biology and Biochemistry, M.B.A
Yossi Maimon	CFO	Colbar LifeScience, Way2Call Communications, C.P.A., M.B.A
Dr. Yoseph Shaaltiel	Executive VP, R&D	MIGAL Technological Center, Rutgers U, Berkley U., Biological Center of IDF, Ph.D. in Plant Biochemistry
Dr. Einat Almon	VP, Product Dev	Biogenics, Ph.D. in molecular biology of cancer research
Iftah Katz	VP, Operations	Taro Pharmaceutical Industries, M.Sc. in Biotechnology and Food Engineering
KEY BOARD MEMBERS		
Mr. Eli Hurvitz	Chairman	Chairman and former CEO of TEVA, former director Bank Leumi
Dr. Phillip Frost	Director	TEVA, Chairman and former CEO of Ivax, Ladenburg Thalman, Key Pharmaceuticals
Dr. Jane Hsiao	Director	Ivax, DVM Pharmaceuticals
SCIENTIFIC ADVISORY BOARD		
Prof. Ernest Beutler	Advisor	Chairman, Dept. of Molecular and Experimental Medicine, Scripps Research Institute, La Jolla, CA. ***World leader in Hematology and genetic diseases***
Prof. Aaron Ciechanover	Advisor	Director of the Institute for Research in Medical Sciences at the Technion, Israel. **Laureate of the Nobel Prize in Chemistry.** ***World opinion leader in the field of protein trafficking.***
Prof. Gad Galili	Advisor	Chairman, Dept. of Plant Biology, Weizmann Institute of Science, Israel. ***Scientific opinion leader in the field of plant molecular and cell biology***
Prof. Ari Zimran	Advisor	Director of the Gaucher clinic, Shaarei Zedek Medical Center, Jerusalem. ***World opinion leader in Gaucher Disease***

Protalix Biotherapeutics

Company Snapshot

Advanced clinical stage biopharmaceutical company focused on development and commercialization of recombinant therapeutic proteins

- **Proprietary ProCellEx™ protein expression system based on plant cell-based expression technology**
- **Lead product prGCD - plant expressed Glucocerebrosidase for Gaucher Disease currently in Phase III clinical trials**
- **Deep pipeline focused on complex therapeutic proteins for novel and biogeneric indications**
- **Publicly traded PLX: AMEX.**
- **Executive offices, R&D and manufacturing facility in Carmiel, Israel**
- **Collaboration agreement with TEVA for the development of two biological drugs**
- **90 employees of which 40% earned Ph.D., M.D. or M.Sc. Degrees**
- **Approved Enterprise status granting 0% tax for a period of 10 years**


Technology Demonstration
Protalix
Biotherapeutics

ProCellEx™ Protein Expression System

Technology Platform

- Proprietary plant cell-based protein expression system
- Comprehensive set of technologies and capabilities for the development of recombinant proteins from initial nucleotide cloning to large scale protein production
- Enables expression of proteins with similar amino acid, glycan and three dimensional structure as compared to their naturally-produced human counterparts
- Demonstrated feasibility through expression of many complex therapeutic proteins belonging to different drug classes:
  - Enzymes, cytokines, monoclonal antibodies, hormones, vaccines.
  - Have shown biological and structural equivalence to the naturally-produced human protein

Protalix Biotherapeutics

Key Advantages of the ProCellEx System

Enables Penetration of Patent Protected Markets

- Avoids infringing on the method-based patents of other proteins developed with mammalian cell-based expression systems, allowing penetration of certain patent-protected markets.
- Expect to obtain method-based patent protection for proteins developed using our ProCellEx system and in some cases, will seek composition patents as well.

Cost Effectiveness and Scalability

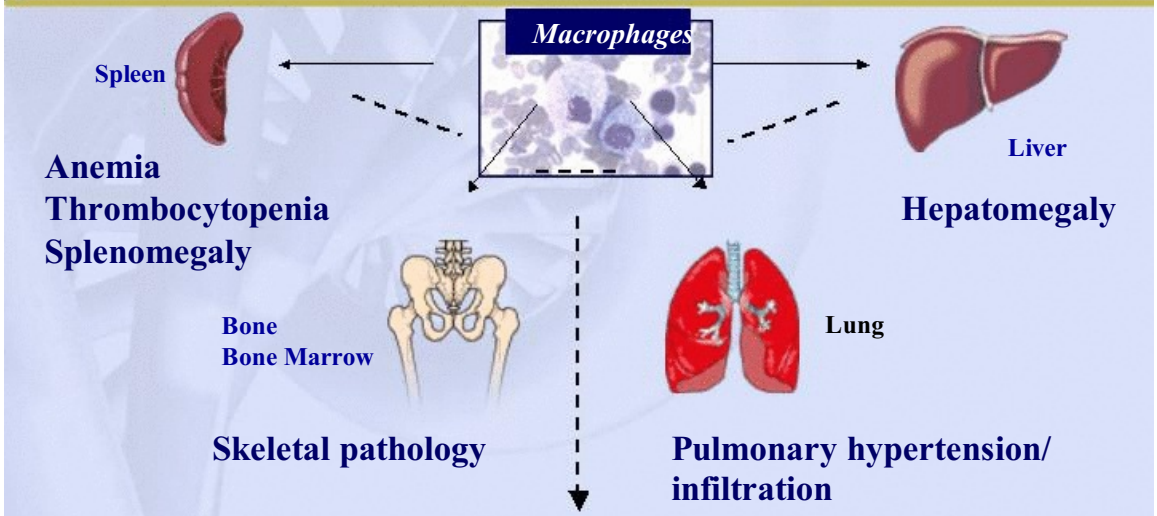
- Flexible polyethylene bioreactors entail low initial capital investment.
- Rapidly scalable at low cost in compliance with cGMP.
- Requires less costly hands-on maintenance.

Significant Advantages Over Mammalian Cell-based Systems

- Excellent safety profile – No risk of mammalian viral transmission or infection.
- Substantial cost benefits.
- Uniform glycosilation patterns result in greater effectiveness and potency.
- Longer half life and superior cell uptake (in prGCD).

Protalix Biotherapeutics

Gaucher Disease:
A genetically inherited disorder

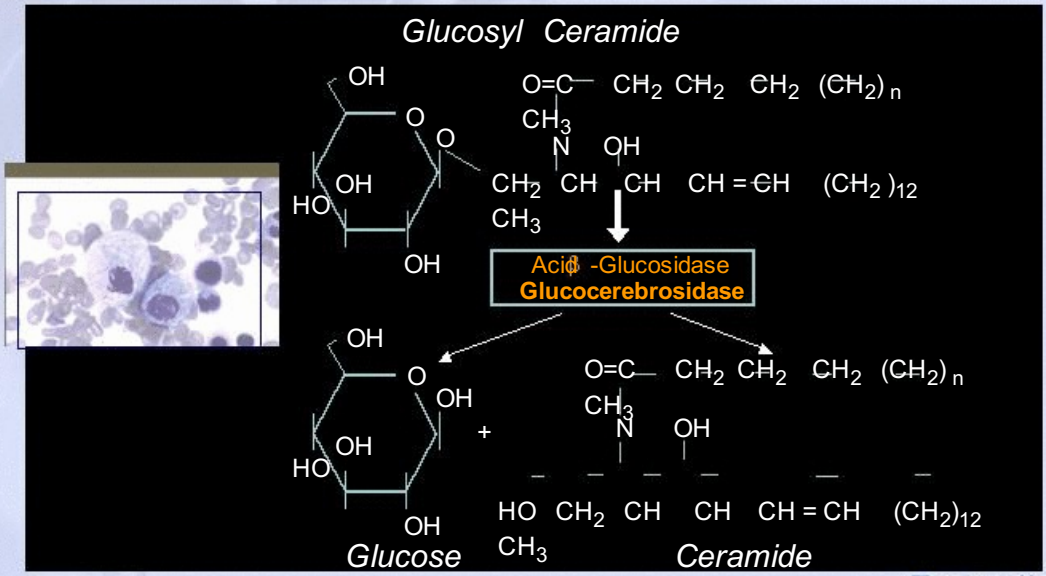


Outcome: Death - Poor quality of life

Source: Beutler and Grabowski, *The Metabolic and Molecular Bases of Inherited Disease* 2001

Protalix Biotherapeutics

The Enzymatic Defect in Gaucher Disease



Protalix Biotherapeutics

Gaucher Disease: Attractive Market Characteristics

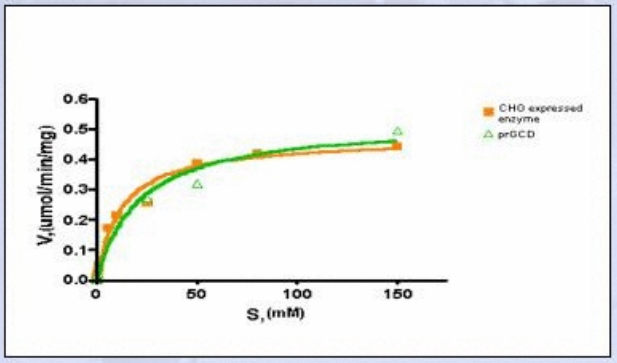
Characteristic	Comment
Large Market Size	■ Only player in the market has annual revenues of > $1bn ■ Approx. 10,000 patients (treated and untreated) globally ■ Enzyme replacement therapy is gold standard treatment
Attractive Patient Profile	■ No cure for Gaucher, ongoing chronic therapeutic treatment ■ Treatment cost of ~$200,000 p.a., ■ Less than 5,000 treated patients ■ Relatively concentrated group of prescribing physicians
Steady Growth Prospects	■ Historic annual market growth of approx 10-15% ■ Estimated global market penetration of ~50% ■ Future penetration to be driven by patient education and screening
Competition	■ *Cerezyme ® (Genzyme)* : The only recombinant GCD on the market with ~100% share ■ *Zavesca ® - (Actelion)*: Small molecule drug - Usage extremely limited due to significant side effects

***Cerezyme* ® Growth ($m)**

Protalix Biotherapeutics

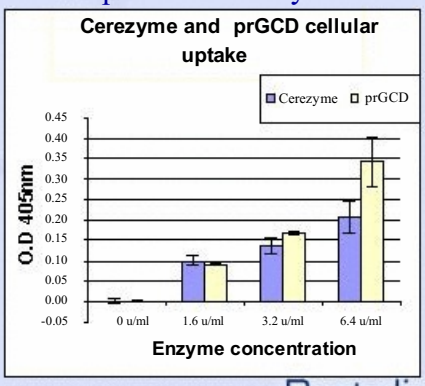
prGCD: Equal to Superior Biological Activity

- prGCD has equal to superior **enzymatic activity** degrading the natural substrate when compared to Cerezyme® :



- **Gaucher patients macrophages model**: prGCD demonstrates superior uptake vs. Cerezyme® following 24 and 48 hours of incubation

- **Enhanced uptake** of prGCD by mouse macrophages compared to Cerezyme® :

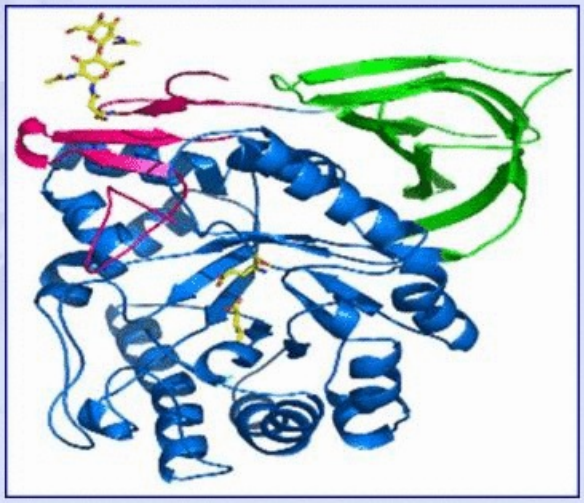


Protalix Biotherapeutics

Similar three Dimensional structure

- 3-D crystal structure of prGCD solved by a team of world renowned scientists from the Weizmann Institute of Science and compared to Cerezyme® structure.

מכון ויצמן למדע
WEIZMANN INSTITUTE OF SCIENCE

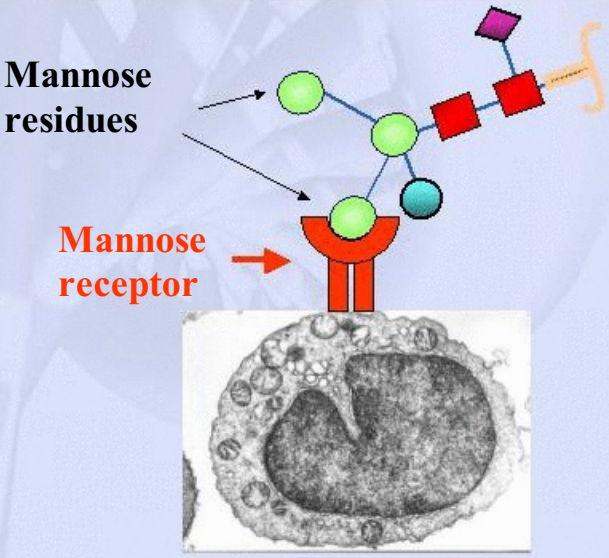


Protalix
Biotherapeutics

Technology Animation

Protalix
Biotherapeutics

Glucocerebrosidase Binds to its Target Cells via the Mannose Receptor

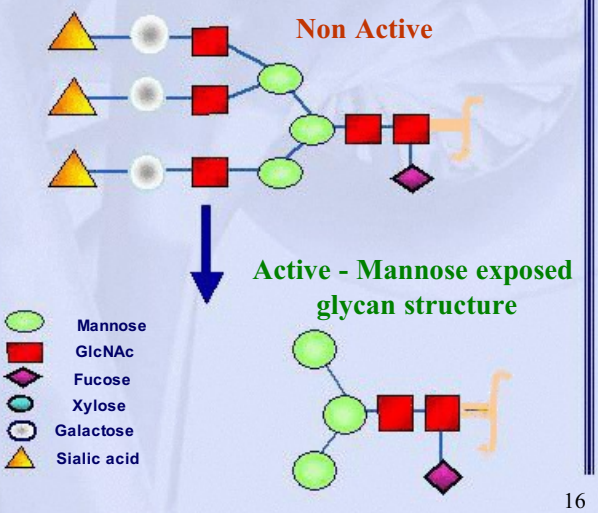


Macrophage

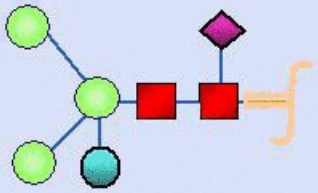
Protalix Biotherapeutics

Protalix technology does not require additional glycan processing

- Mammalian technology requires multiple post-expression modifications:

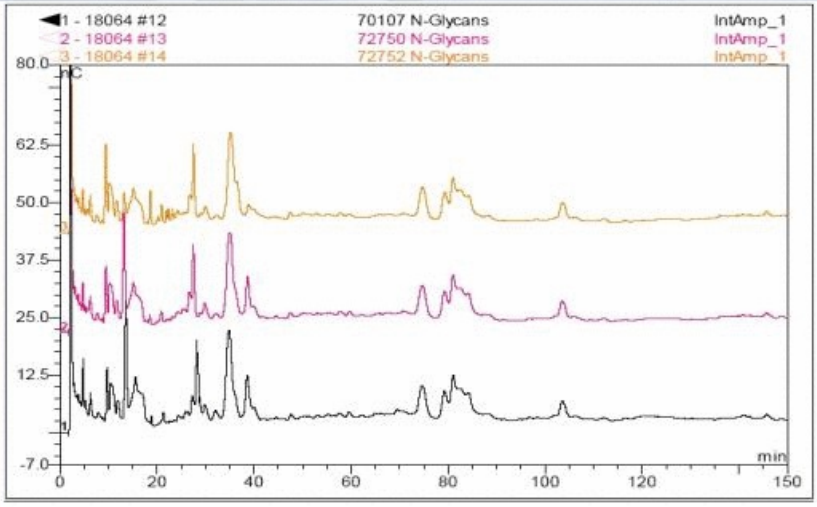


✓ Protalix plant cell technology produces a "ready to use" bioactive enzyme:



Protalix Biotherapeutics

Batch to Batch Consistency of Glycoforms produced by the ProCellEx™ system



Overlaid HPAEC-PAD chromatograms of the data obtained from the analysis of the PNGase A released N-glycans isolated from three batches of Glucocerebrosidase produced in carrot suspension cells.

Protalix Biotherapeutics

Successful Phase I Clinical Study

Design

- Single-center, non-randomized, open label performed at Hadassah Medical Center, Jerusalem
- Study performed under FDA IND approval.

Objectives

- Primary: To evaluate the safety of three escalating doses of human prGCD in healthy volunteers
- Secondary: To determine the pharmacokinetics of prGCD in human subjects

Results

- **prGCD was well tolerated.**
- **Highly satisfactory safety laboratory results.**
  - **No anti prGCD antibodies**
  - **No immune reaction against prGCD.**
- **Pharmacology – prolonged half life of drug in serum**

Protalix Biotherapeutics

Pharmacokinetic data: prGCD vs. Cerezyme (IV administration)

	Preclinical –Primate data	Human data
prGCD data:	■ T1/2 13-20 minutes	■ T1/2 10.5-14.5 minutes
Cerezyme (published data)	■ T1/2 6.8-8 minutes	■ T1/2 ~ 3.6-10.4 minutes

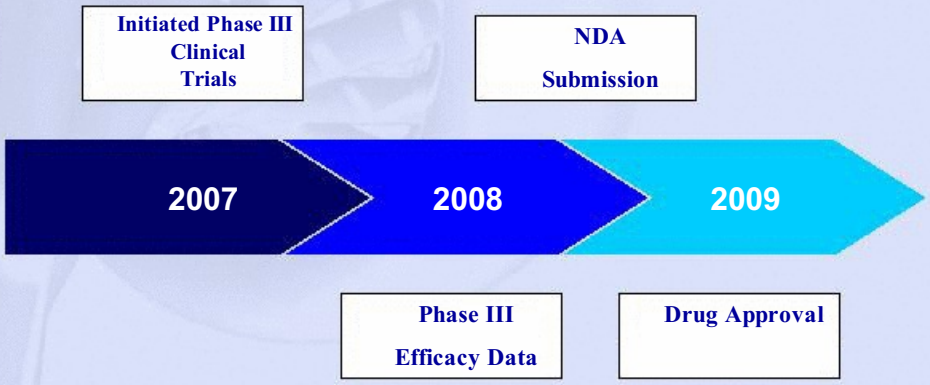
Protalix Biotherapeutics

prGCD Phase III Trial – Launched Aug 07

- **Multi-center world wide study**
  - **Efficacy and safety in 30 untreated patients with significant symptoms of Gaucher disease treated with prGCD for 9 months**
- **Special Protocol Assessment approved by FDA in July 2007**
  - **Randomized, double blind, parallel groups, dose-ranging study**
- **Primary End Point**
  - **Mean decrease of 20% in spleen volume would represent a clinically relevant improvement**
- **Three Major Secondary Endpoints**
  - **decrease in liver volume , increase in Hemoglobin concentration, increase in platelet count**

Protalix Biotherapeutics

prGCD Clinical Development Timeline



Protalix Biotherapeutics

prGCD for Gaucher Disease

prGCD

- Plant cell expressed recombinant GCD for enzyme replacement therapy
  - Enzyme replacement therapy is gold standard of care
- Substantially similar amino acid, glycan and three dimensional structure compared to Cerezyme
- Major proof of concept for ProCellEx™ Protein Expression System

Clear Clinical Path

- Following clinical protocol similar to Cerezyme
- Clinical data demonstrated increased half-life and increased in vitro and uptake efficacy
- Implies potential for more potent and effective drug
- Demonstrated safety and no immunological responses in intensive animal studies or Phase I human study
- Initiated 30 patient Phase III clinical trial in August 2007 under SPA

An Effective and Cost Efficient Treatment

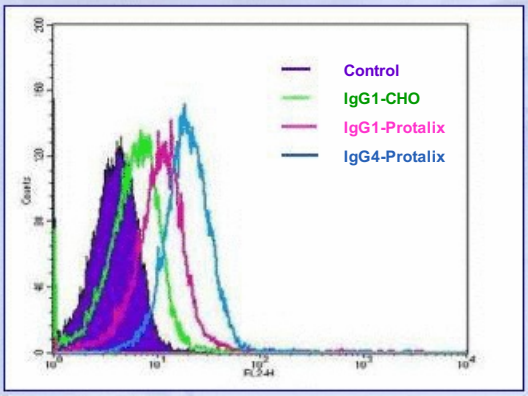
- Low production costs result from:
  - Lower initial set-up investment and ongoing growth media, labor and monitoring costs
  - Absence of post-expression glycosilation modification which are needed for Cerezyme

Protalix Biotherapeutics

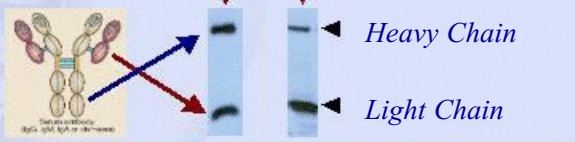
Leveraging our Platform into Attractive Market Opportunities

Pipeline Candidate	Indication	Phase of Development	Market Opportunity	Market Dynamic
prGCD	Enzyme replacement therapy for Gaucher Disease	Phase III in progress	>$1 B	▪ Currently only one meaningful market player - Genzyme ▪ Incurable disease, ongoing chronic treatment
Acetyl-Cholinesterase	Biodefense and organophosphate poisoning	R & D, Animal Studies	~ $500 mm	▪ Unmet medical need in rapidly growing biodefense market ▪ Vast potential of civilian applications
PRX-102 Fabry Disease	Enzyme replacement therapy for Fabry Disease	R & D, Animal Studies	>$500 mm	▪ One product in US and another in EU and Rest of World ▪ Rapidly growing market ▪ Enzyme replacement therapy is standard of care
PRX-111 FSH	Follicle Stimulating Hormone for Female Infertility	R & D, Animal Studies	>$1,200 mm	▪ Currently three meaningful products and only two recombinant hormone market players

Monoclonal Antibodies Expression



Binding to Jurkat Leukemia cells



✓ **Protalix system represents an alternative platform for hard-to-express proteins in mammalian systems, including monoclonal antibodies**

Protalix Biotherapeutics

Strategic Collaborations

- **In addition to internal, proprietary development, Protalix also seeks to share risk and enter into partnerships for the early-stage co-development for biotherapeutic proteins**

TEVA

- Framework agreement for R&D collaboration on two proteins using ProCellEx system
- TEVA to be granted license to commercialize the developed products
- Protalix will receive milestone and royalties and retain exclusive manufacturing rights

מכון ויצמן למדע
WEIZMANN INSTITUTE OF SCIENCE

- Licensed technology from Weizmann to design next generation of GCD for Gaucher
- Based on a 3-D crystal structure of prGCD technology provides methodology for rational design for an improved drug
- Protalix pays fixed research budget and some royalties for any commercialized products

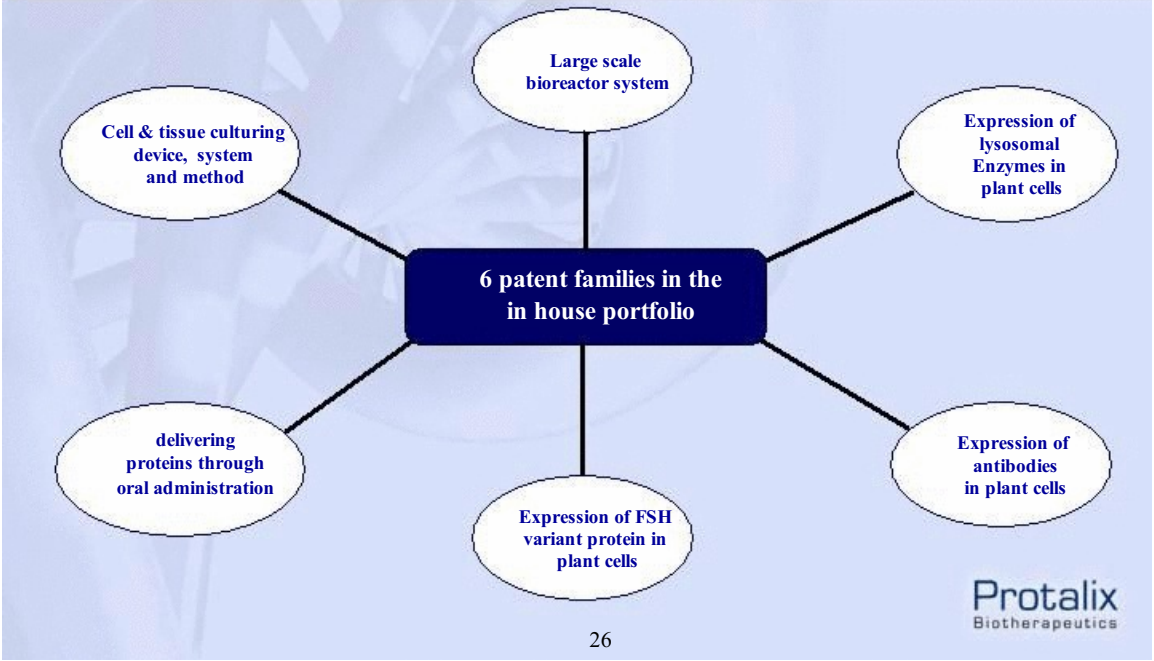
האוניברסיטה העברית בירושלים
The Hebrew University of Jerusalem

Cornell University

- Agreement with Hebrew University and Boyce Thompson of Cornell University to license the technology underlying the developed acetylcholinesterase and its molecular variants for the use in several therapeutic and prophylactic indications, as well as in a biodefense program
- Protalix pays some royalties for any commercialized products

Protalix
Biotherapeutics

Strong Intellectual Property Protection: 50+ Patents & Applications



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Protalix Biotherapeutics

Contact:

Dr. David Aviezer

President & CEO
david@protalix.com

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