PROTALIX BIOTHERAPEUTICS

CORPORATE PRESENTATION

November 2021

Note Regarding Forward-Looking Statements

This presentation (the "Presentation") contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended. The forward-looking statements, including, among others, statements regarding expectations as to regulatory approvals, market opportunity for, and potential sales of, the Company's product and product candidates, goals as to product candidate development and timing of the Company's clinical trials, are based on the Company's current intent, belief and expectations. These statements are not guarantees of future performance and are subject to certain risks and uncertainties that are difficult to predict. Factors that might cause material differences include, among others: risks related to the timing and progress of the preparation of an updated BLA addressing the complete response letter; risks related to the timing, progress and likelihood of final approval by the FDA of a resubmitted BLA for PRX-102 and, if approved, whether the use of PRX-102 will be commercially successful; failure or delay in the commencement or completion of the Company's preclinical and clinical trials which may be caused by several factors, including: slower than expected rates of patient recruitment; unforeseen safety issues; determination of dosing issues; lack of effectiveness during clinical trials; inability or unwillingness of medical investigators and institutional review boards to follow the Company's clinical protocols; and inability to monitor patients adequately during or after treatment; delays in the approval or potential rejection of any applications the Company files with the FDA, EMA or other health regulatory authorities, and other risks relating to the review process; risks associated with the novel coronavirus disease, or COVID-19, outbreak, which may adversely impact the Company's business, preclinical studies and clinical trials; risks related to any transactions the Company may effect in the public or private equity and debt markets to raise capital to finance future research and development activities, general and administrative expenses and working capital; the risk that the results of the clinical trials of the Company's product candidates will not support the applicable claims of safety or efficacy, or that the Company's product candidates will not have the desired effects or will be associated with undesirable side effects or other unexpected characteristics; risks related to the Company's ability to maintain and manage its relationship with its collaborators, distributors and partners; risks relating to the Company's ability to make scheduled payments of the principal of, to pay interest on or to refinance its outstanding notes or any other indebtedness; risks related to the Company's commercialization efforts for alfataliglicerase in Brazil; risks relating to the compliance by Fundação Oswaldo Cruz with its purchase obligations and related milestones under the supply and technology transfer agreement; the risk that despite the FDA's grant of fast track designation for PRX-102, the Company 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; the Company's dependence on performance by third party providers of services and supplies, including without limitation, clinical trial services; delays in the Company's preparation and filing of applications for regulatory approval; the inherent risks and uncertainties in developing drug platforms and products of the type the Company is 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 the Company's filings with the U.S. Securities and Exchange Commission. Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of today's date. The Company undertakes no obligation to update or revise the information contained in this Presentation whether as a result of new information, future events or circumstances or otherwise.

Investment Highlights

Plant cell expressed recombinant proteins with improved therapeutic profiles

Revenue Generating

FDA approved, commercially marketed drug for Gaucher disease. Elelyso® and alfataliglicerase.

Fabry Disease

Protalix has completed three Phase 3 studies of PRX-102 for the treatment of Fabry Disease (BALANCE, BRIDGE and BRIGHT). The final dosing of the last patient was announced Oct 2021. Protalix following a Type-A meeting with the FDA , is preparing for a resubmission in the 2H'22 alongside a submission of a Marketing Authorization Application to the European Medicines Agency (EMA) planned for 1H'22.

Partnerships

Chiesi Farmaceutici S.p.A., Pfizer Inc. and Fundação Oswaldo Cruz (Fiocruz)

Platform

Proprietary ProCellEx® platform for recombinant protein expression cGMP manufacturing facility successfully inspected and audited by multiple regulatory agencies, including the FDA & EMA.

Pipeline

Uricase (PRX-115) for the treatment of Refractory Gout,
LA DNase I (PRX-119) for the treatment of NETs related diseases, as well as other product candidates in seed and preclinical phases.

Strong Balance Sheet

Successfully completed a Note Exchange in 3Q'21, which extended the maturity of the 2021 Sr. Sec. Convertible Notes until 2024 and lowered the aggregate principal amount by approximately half.

Note: cGMP = Current Good Manufacturing Practice.

Plant Cell in Suspension Expression System for Therapeutic Proteins Development and Industrial Production: Executive Summary

Cell lines and Genetic Engineering

Unique **genetic engineering tools** used for producing **improved tobacco plants cell lines** and plant viral based constructs achieving **optimized therapeutic proteins profiles and reducing safety risks**

Biologic Optimization

Experienced internal interdisciplinary capabilities (e.g. genetic engineering, **chemical modification**) to improve biologic attributes**: consistent glycosylation, elongated half-life, reduced immunogenicity, enhanced protein stability/activity**

Intellectual Property

IP advantages due to proprietary manufacturing processes and development of 2nd generation improved products, related to Composition of Matter protection on one hand and FTO on the other hand

Simplified and consistent Production Process

Production at room temperature, simplified maintenance with no risk of viral contamination from mammalian components, high batch-to-batch reproducibility

Can Handle Complexity

Ability to express certain proteins that are difficult to express in other systems

GMP compliance

Implementation of applicable regulatory requirements known to the Biotech industry

Flexible Scale-Up

Flexible infrastructure design allows for rapid horizontal scale-up (or scale-down), as required to keep the production volume

Source: Company Information.

ProCellEx® Platform

Protalix's ProCellEx® platform uses flexible polyethylene disposable bioreactors and is optimized for plant cell cultures. As opposed to the large stainless steel bioreactors commonly used for recombinant protein production, the ProCellEx® bioreactors are easy to use and maintain, and allow for the major advantage of rapid horizontal scale-up and remove the risk of viral contamination from mammalian components in an industrial scale.

Plant Cell Production

- Rapid product roll-out and development
- No risk of viral contamination from mammalian components
- Manufacturing maintained at room temp
- Plant cell are not sensitive to small changes in production condition such as Ph., temp, etc.
- Reactors do not need complicated monitors
- maintain production parameter constant → high reproducibility
- Independent, separately controlled, disposable bioreactors - no "cross talking"
- Flexible horizontal scale-up in accordance with changing production needs
- Flexible infrastructure design allows for keeping equivalent volume in each added bioreactor during horizontal scale-up

Chinese Hamster Ovary (CHO) cell lines

Mammalian Cell Expression

- High set-up costs involving large bioreactors
- Cell cultures require a complex medium; small changes in composition may affect product characteristics
- Require highly controlled growth conditions in the bioreactor (e.g., Ph., temp and CO_2)
- Susceptibility to viral contaminations

Bacteria or yeast cell lines

Bacteria and Yeast Cell Expression

- Limited to non-glycosylated simple proteins
- Cannot produce antibodies, enzymes and other complex proteins

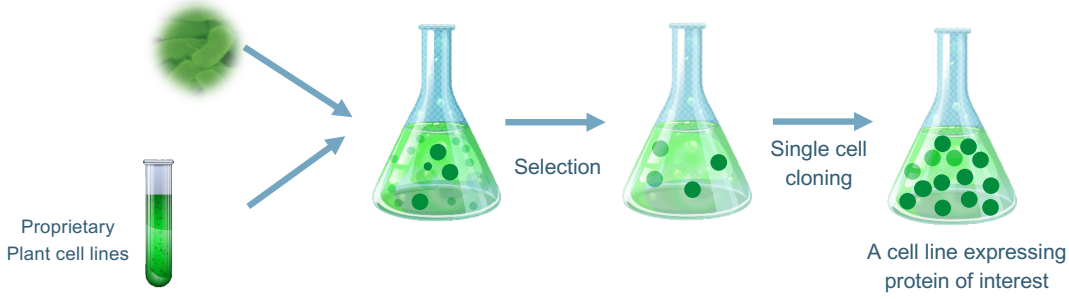
ProCellEx® Platform: Proprietary Plant Cells Protein Expression System

First and only company to gain FDA approval of a protein produced through plant cell-based expression system

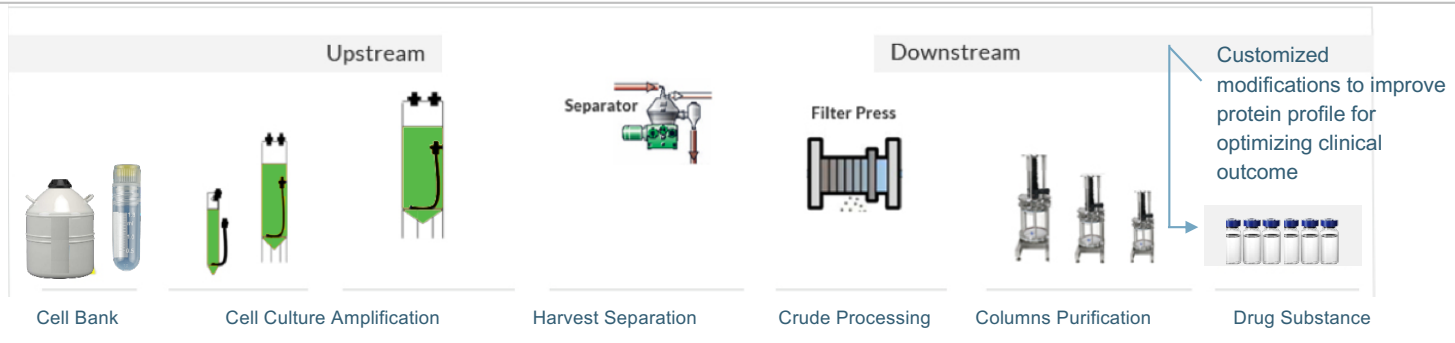
Unique capabilities of tailoring genetic engineering and protein engineering tools for pre/post production modifications, customized for each protein candidate. High capabilities of per product process development in a pilot scale followed by upscaling to an industrial validated commercial process.

DEVELOPMENT OF TRANSGENIC CELL LINES FOR PRODUCTION OF TARGET PROTEIN

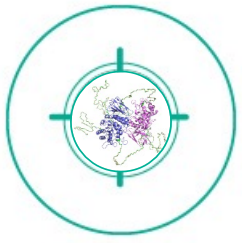
Agrobacterium mediated cell transformation using the natural capability of the agrobacteria to transfer DNA fragment into a plant chromosome



PROCESS OVERVIEW



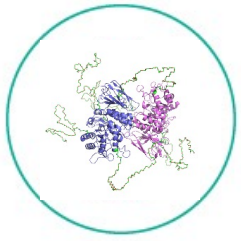
From Concept to Market



Selecting the target protein-drug candidate

Gene of interest engineering

Plant cells genetically engineered to express the gene of interest



Protein drug enhancement modifications

Improving biological dynamics to bring forth improved clinical profiles

Pilot production with ProCellEx® platform

Purification and isolation

Product development

Clinical development and regulatory activity

Commercial production

Scaling up to produce commercial quantities

Tekoah et al. Large-scale production of pharmaceutical proteins in plant cell culture-the Protalix experience. Plant Biotechnol J. 2015 (pp.1-10)

Elelyso® for Gaucher Disease

First plant cell derived recombinant protein approved by the FDA

Validation of the ProCellEx® platform

Gaucher disease is a rare genetic disorder characterized by the deposition of glucocerebroside in cells of the macrophage-monocyte system. Possible symptoms include enlarged liver and spleen, various bone disorders, easy bruising, and anemia. Left untreated, Gaucher disease can cause permanent body damage and decrease life expectancy.

Elelyso is approved in 23 markets[1]. Monetized through a world-wide exclusive license agreement with Pfizer in 2009, amended in 2015 (excluding Brazil).

FDA APPROVED

elelyso® (taliglucerase alfa) for injection
Plant based. People focused.®

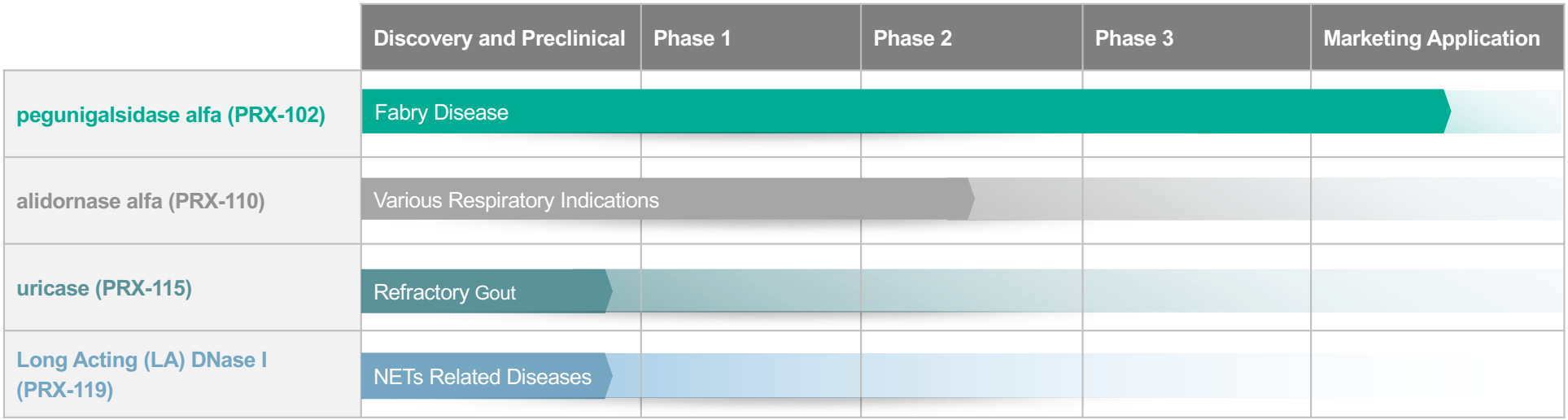
Elelyso provides a consistent (and growing) revenue stream for Protalix while validating the **ProCellEx** platform technology and demonstrating the company's manufacturing and production expertise and ability to bring a treatment from concept to market production.

- Sales of ~$4.3 M in Brazil (YTD 2021)
- ~27% market share in Brazil
- ~10% annual growth expected over next 3 years

1. Approved in 23 markets including the US, Australia, Canada, Israel, Brazil, Russia and Turkey. The European Committee for Medicinal Products for Human Use (CHMP) gave a positive opinion but also concluded that the medicine cannot be granted marketing authorization in the EU because of the ten-year market exclusivity that had been granted to Vpriv® (Shire), which was authorized in August 2010 for the same condition.

Product Pipeline

Recombinant proteins with improved therapeutic profiles that target unmet medical needs and established pharmaceutical markets.



All of our pipeline candidates are recombinant proteins expressed via our proprietary ProCellEx® system.

Fabry Disease

Rare Genetic Disease
occurs in one of every
40,000 people

Growing Market
~$2.2B+ growing market
(expected CAGR ~10%)

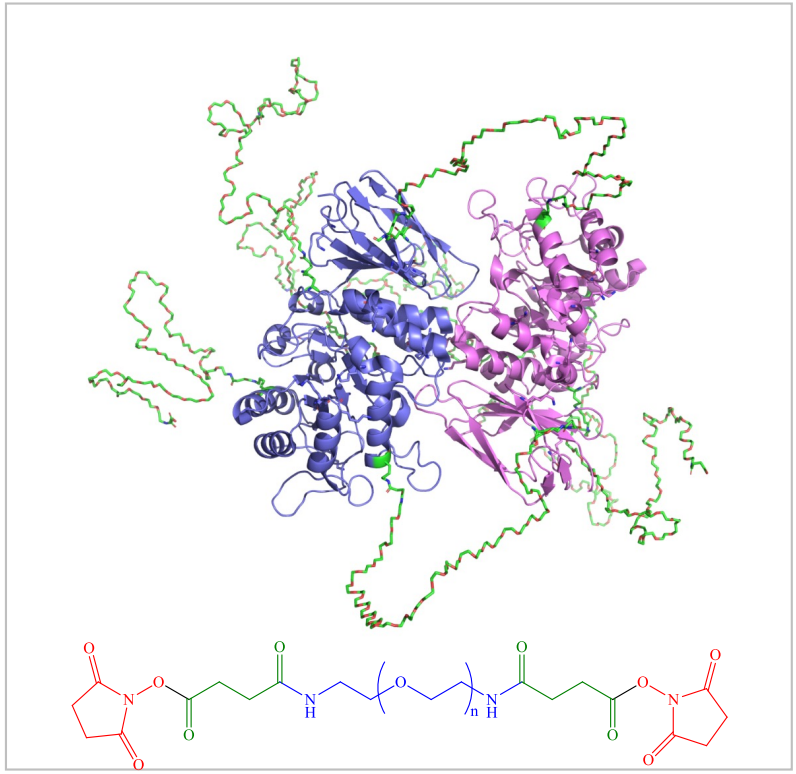
Fabry disease is primarily treated with
enzyme replacement therapy (ERT) to replace the missing α-Galactosidase-A enzyme with a recombinant form of the protein via intravenous infusion 1x every 2 weeks.

Fabry Disease Competitive Landscape

Product Name	Fabrazyme®	Replagal®	Galafold®
Parent Company	Sanofi (Genzyme)	Takeda (Shire)	Amicus
Mechanism	ERT	ERT	Pharmacological chaperone
Indication	Fabrazyme is indicated for use in patients with Fabry disease. Fabrazyme reduces GL-3 deposition in capillary endothelium of the kidney and certain other cell types. (U.S.) Fabrazyme is indicated for long-term enzyme replacement therapy in patients with a confirmed diagnosis of Fabry disease (α-galactosidase-A deficiency). Fabrazyme is indicated in adults, children and adolescents aged 8 years and older. (E.U.)	Replagal is indicated for long-term enzyme replacement therapy in patients with a confirmed diagnosis of Fabry Disease (α-galactosidase-A deficiency). (E.U.)	Galafold is an α-galactosidase-A (alpha-Gal-A) pharmacological chaperone indicated for the treatment of adults with a confirmed diagnosis of Fabry disease and an amenable galactosidase alpha gene (GLA) variant based on in vitro assay data. This indication is approved under accelerated approval based on reduction in kidney interstitial capillary cell KIC GL-3 substrate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in confirmatory trials. (U.S.) Galafold is indicated for long-term treatment of adults and adolescents aged 16 years and older with a confirmed diagnosis of Fabry disease (α-galactosidase-A deficiency) and who have an amenable mutation (E.U.)
Approval Date	2003 (U.S.); 2001 (E.U.)	**Not approved in U.S.**; 2001 (E.U.)	2018 (U.S.); 2016 (E.U.)
Treatment Type	Bi-weekly infusions	Bi-weekly infusions	Oral
Dosing	1 mg/kg every 2 weeks	0.2 mg/kg every 2 weeks	123 mg every other day

Pegunigalsidase Alfa Mechanism of Action (MoA)

- Pegunigalsidase is a PEGylated enzyme designed to be potentially superior to the currently approved ERTs, primarily on safety and immunogenicity that has the potential to be translated to efficacy
- Covalent linked via short 2kD PEG having two reactive ends results in stabilizing the enzyme and extended circulatory and tissue half-life
- Continuous coverage/ presence of enzyme over infusion intervals without compromising the enzyme activity and internalization to target organ and cells
- Providing potentially increased enzyme exposure and enhanced activity to target organs and sustained hydrolysis and prevention of accumulation and re-accumulation of substrate
- PEGylation potentially reduces immunogenicity by masking immunogenic epitopes together with the continued presence has the potential to induce immune tolerance
- PEGylation potentially reduces the cross reactivity and reduces serum mediated enzyme inhibition of already existing antibodies (in patients previously treated with other ERT)
- Two optional dosing regimens based on unique product characteristics

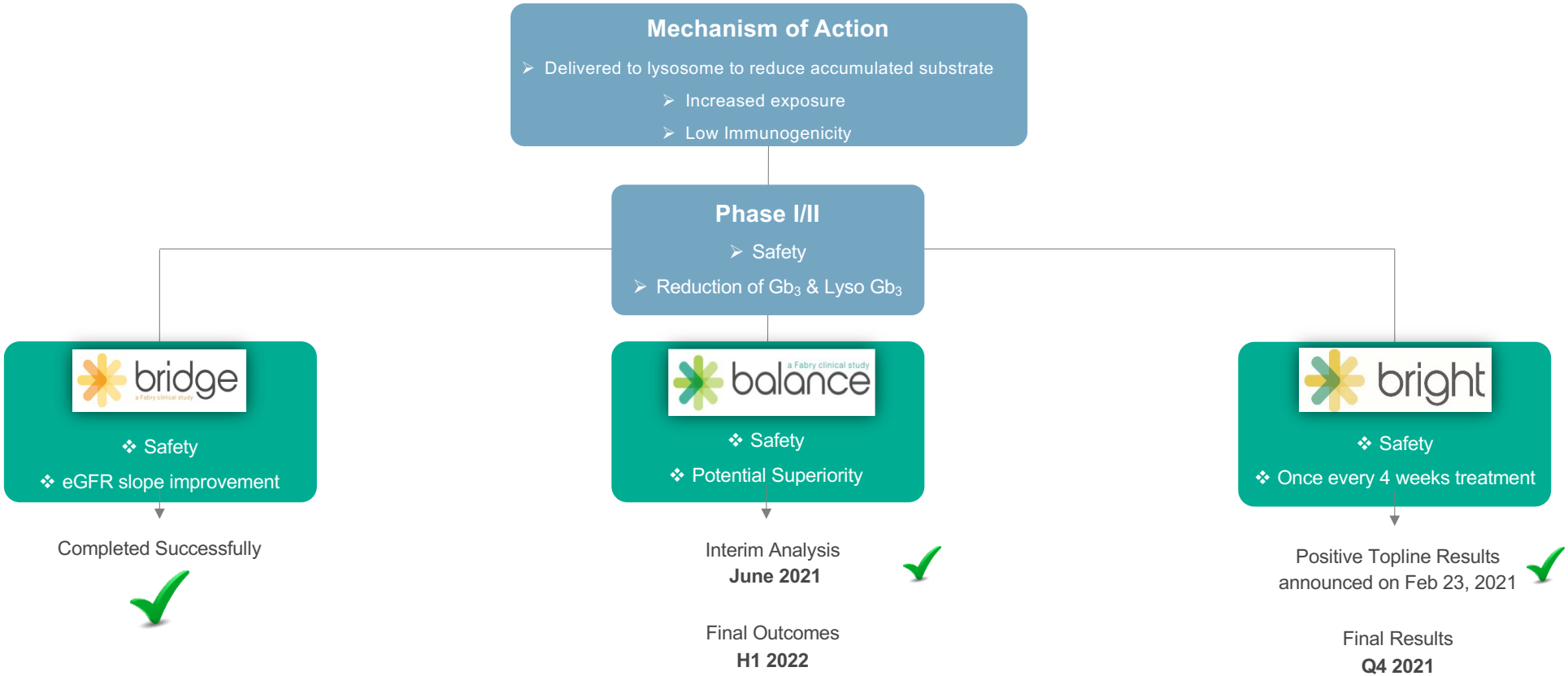


Ruderfer I., et al. Development and Analytical Characterization of Pegunigalsidase Alfa, a Chemically Cross-Linked Plant Recombinant Human α-Galactosidase-A for Treatment of Fabry Disease. Bioconjug Chem. 2018 (pp. 1-8)

Schiffmann R., et al. Pegunigalsidase alfa, a novel PEGylated enzyme replacement therapy for Fabry disease, provides sustained plasma concentrations and favorable pharmacodynamics: A e 1/2 clinical trial. J of Inherited Metabolic Disease. 2019 (pp. 534-544)

Clinical Program Overview

Pegunigalsidase Alfa PRX-102

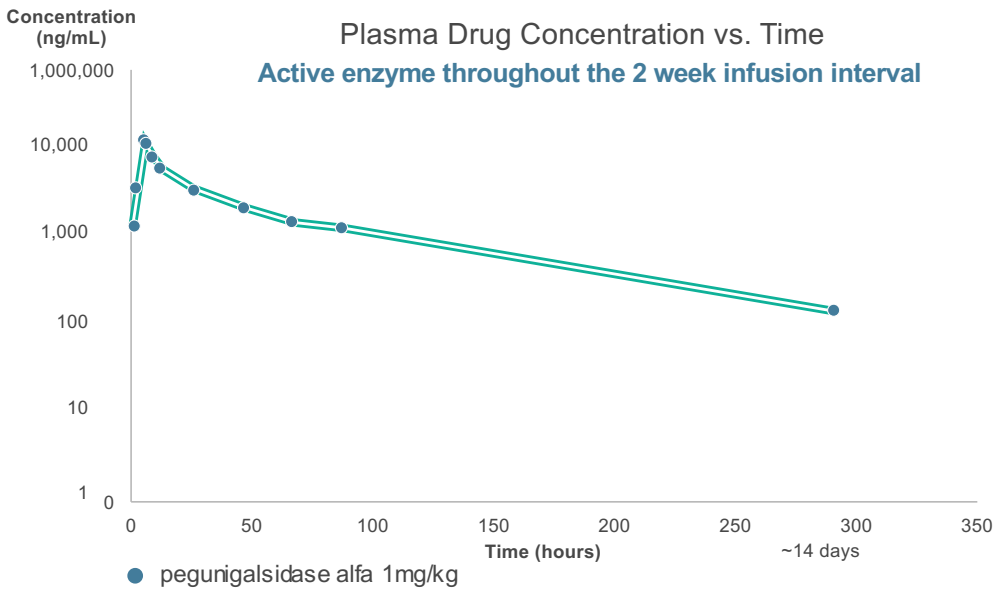


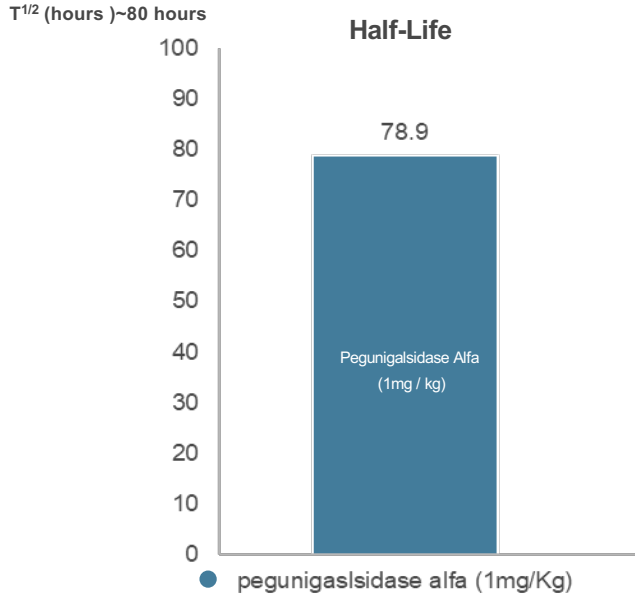
Phase I/II Study - Development Rationale

High levels of active available enzyme → potentially improved clinical benefit

- Chemically modified plant cell derived PEGylated covalently bound homodimer
- In Phase I/II clinical trial, pegunigalsidase alfa has been observed to be stable throughout 2-week infusion interval

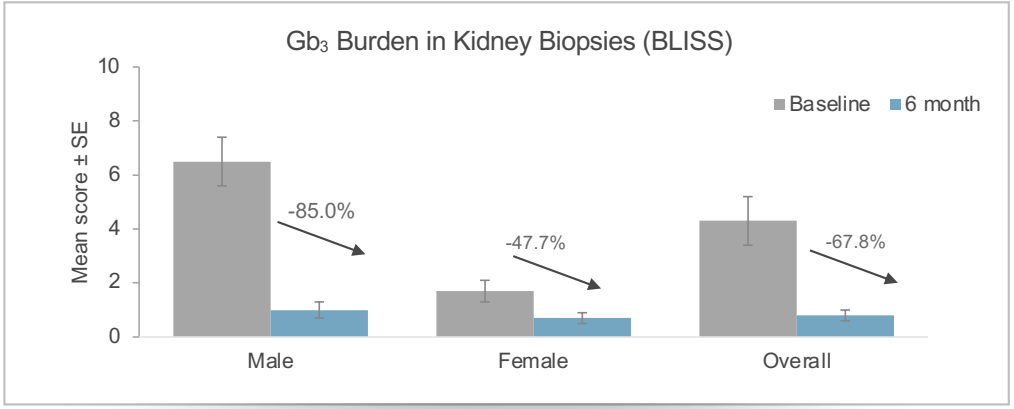
Results of the Phase I/II Clinical Trial

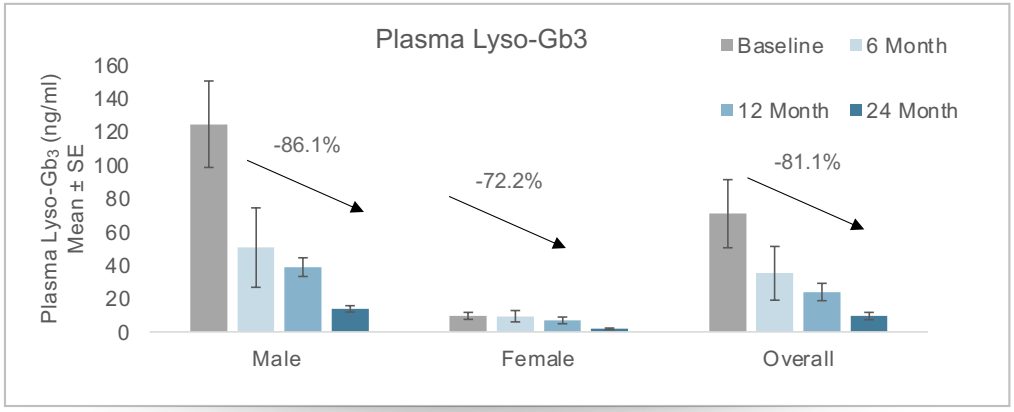


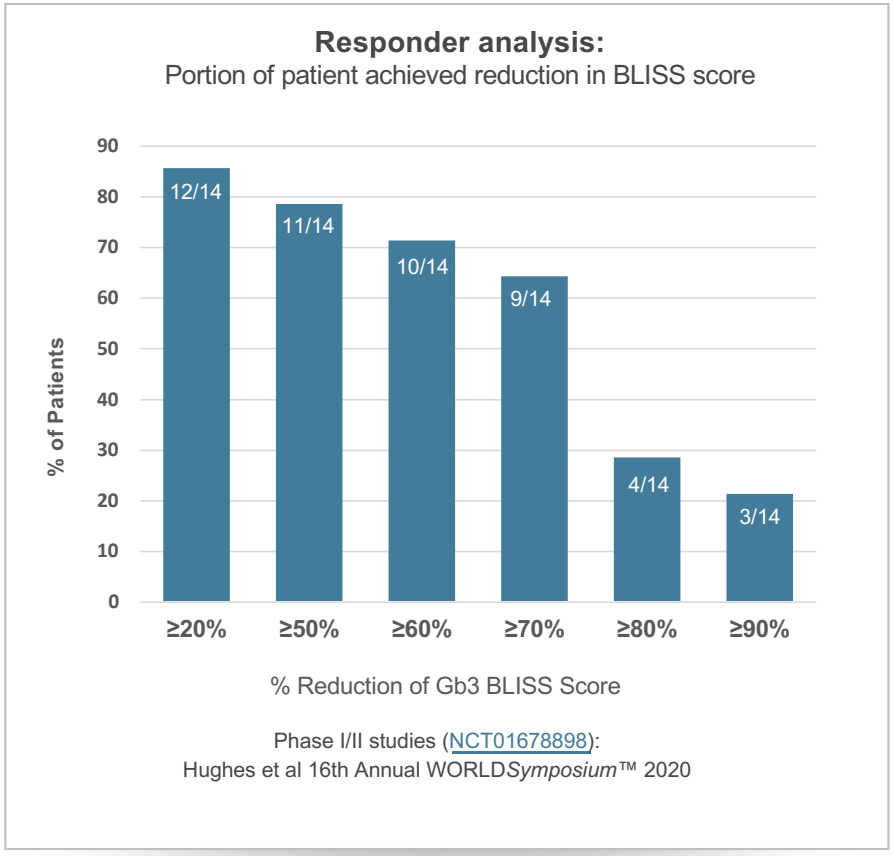


Phase I/II Study

Substantial reduction & high correlation between two Fabry disease biomarkers



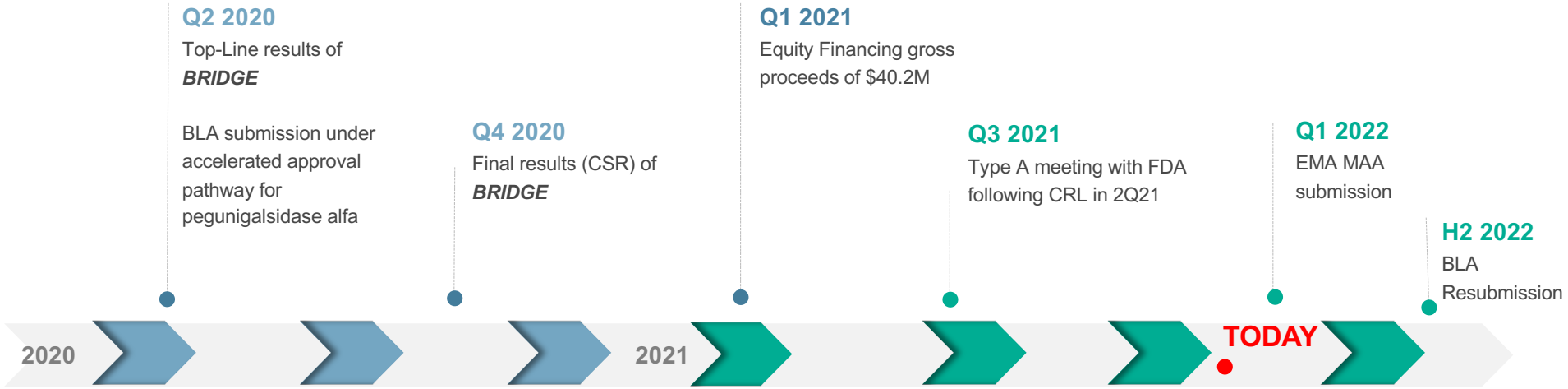




Pegunigalsidase alfa (PRX-102) Current Clinical Trials

	Design	Number of Patients	Next Data Read-Out	Completed
balance (a Fabry clinical study)	1mg/kg 2 weeks Randomized Double Blind Head-to-Head vs. Fabrazyme® *24 mos.*	78	Final Outcomes Data Expected 1H 2022	✓
bridge (a Fabry clinical study)	1mg/kg 2 weeks Open Label Switch Over from Replagal® *12 mos.*	22	Final results reported Q4'20	✓
bright	2mg/kg 4 weeks Open Label Switch Over from Fabrazyme® and Replagal® *12 mos.*	30	Announced positive top-Line results on Feb 23, 2021	✓

Protalix Recent and Upcoming Expected Milestones



Q1 2020
$43.7M Private Placement

Q2 2020
Top-Line results of ***BRIDGE***

BLA submission under accelerated approval pathway for pegunigalsidase alfa

Q3 2020
BLA Acceptance for pegunigalsidase alfa under Accelerated Approval and Priority Review designation by the FDA

Q4 2020
Final results (CSR) of ***BRIDGE***

Q1 2021
Announced positive Top-Line results for ***BRIGHT*** on Feb 23, 2021

Q1 2021
Equity Financing gross proceeds of $40.2M

Q2 2021
FDA issued a CRL for pegunigalsidase alfa (Apr 27, 2021)

Q3 2021
Type A meeting with FDA following CRL in 2Q21

Q4 2021
Last patient out Phase:3 ***BALANCE*** Trial

Final Results Phase:3 ***BRIGHT*** Trial

Q1 2022
EMA MAA submission

H1 2022
Final Outcomes Data ***BALANCE***

H2 2022
BLA Resubmission

(^) subject to regulatory pre-submission review

Committed Commercial Partner

Global Partnership with
Chiesi Farmaceutici S.p.A.

Chiesi's 6,000 employees and ~$2.5B in revenue (2019) provides Protalix with the strong Sales & Marketing partner to maximize Unigal's market potential (pending approval) as the centerpiece of their new strategic U.S.-based Orphan Drug division

Up to $1+ billion in potential milestone payments

Tiered royalties of 15-35% (ex-US); 15-40% (US)

Committed global partner with a robust sales team and demonstrated expertise in marketing ERTs (while at Genzyme)

Uricase (PRX-115) for Refractory Gout

PRX-115 is a PEGylated enzyme expressed via ProCellEx® for intravenous (IV) administration of recombinant Uricase, designed for safe and efficacious treatment of refractory gout.

Overview

- Gout is the most common form of chronic inflammatory disability, generally caused due to underexcretion of uric acid, leading to urate crystal deposition
- Chronic refractory gout is a painful and severe form of inflammatory arthritis that can lead to bone grinding and joint deformities resulting in loss of function and disability, affecting approximately two hundred thousand people in the United States
- The only marketed recombinant Uricase for the treatment of refractory gout (Krystexxa®; Pegloticase) has a “Black Box” safety warnings for anaphylaxis and infusion reactions, mediated by strong immunogenicity
- 89% of refractory gout patients treated by Krystexxa® develop an immunogenic response that is associated with a failure to maintain normalization of serum uric acid levels over a 6-month therapy cycle[1]
- PRX-115 is designed to lowering uric acid levels while having low immunogenicity and increase half-life in the circulation

Proprietary PEGylated Uricase:

Pre-clinical data demonstrates:

- Stable PK profile and long half-life
- Low immunogenic risk
- High specific activity

These preclinical data support the potential of PRX-115 to be a safe, effective and convenient to use treatment for refractory gout patients.

- PRX-115 development plan goal is to initiate toxicity studies in Q1’22
- PRX-115 development plan goal is to initiate Phase I clinical study in Q1’23

[1] Efficacy and Tolerability of Pegloticase for the Treatment of Chronic Gout in Patients Refractory to Conventional Treatment [JAMA. 2011 Aug 17;306(7):711-20]

Long acting (LA) DNase I (PRX-119) for NETs related diseases

PRX-119 is a cutting edge PEGylated recombinant human DNase I, expressed via ProCellEx®, designed to elongate DNase half-life in the circulation for the treatment of NETs related diseases.

Overview

- Neutrophil extracellular traps (NETs) are web-like structures, released by activated neutrophils that trap and kill a variety of microorganisms. NETs are composed of DNA, histones, antimicrobial and pro-inflammatory proteins
- Excessive formation or ineffective clearance of NETs can cause different pathological effects. NETs formation was observed in various autoimmune, inflammatory and fibrotic conditions, diverse forms of thrombosis, cancer and metastasis[1]
- Animal studies demonstrated that DNase treatment reduce NETs toxicity[1]
- The only FDA approved DNase I, Dornase alfa (Pulmozyme®, Roche), is for the treatment of cystic fibrosis (CF) patients via inhalation. However, this enzyme has demonstrated relatively short half-life in the circulation[2] and may not be effective in treating NETs related diseases
- PRX-119 designed to elongate DNase half-life in the circulation for the treatment of acute and chronic conditions related to NETs

Proprietary PEGylated DNase:

- Protalix is developing LA DNase I potentially to customize the treatment for various medical conditions in which NETs are involved
- In a Cecal Ligation and Puncture (CLP) mice sepsis model, the treatment of LA-DNase improved mice survival in a dose dependent manner, and with a greater effect than the unmodified DNase
- LA-DNase is being tested in mice sepsis model in one of the leading centers of the National Preclinical Sepsis Platform (NPSP) in Canada. This center has great advantage in accelerating the translation science of new therapies for clinical trials

[1] Neutrophil extracellular traps in immunity and disease. Papayannopoulos V. Nat Rev Immunol. 2018 Feb;18(2):134-147
[2] Pharmaco-toxicological expert report Pulmozyme rhDNase Genentech, Inc. Green J D. Hum Exp Toxicol. 1994 May;13 Suppl 1:S1-42

Well Capitalized to Mature the Potential of PRX-102

CASH
$48.7 M (3Q'21)

FINANCING
Successfully completed a Note Exchange in 3Q'21 to extend maturity from 2021 to 2024 and lower principal

CASH RUNWAY
Cash Runway to 2Q'24

EQUITY OPPORTUNITIES
$20M At-the-Market Equity Facility w/HCW

REVENUE
$12.1 M in revenue (3Q'21)

NET BURN RATE
$6.0M/Q, declining as patients shift over to extension study

DEBT
$28.75 M in debt (Convertible Notes) due Nov. 2024

SHAREHOLDER BASE
Strong Institutional shareholder base

UBS ALROV ROSALIND PSAGOT HIR Investments MORE Investment House HIGHBRIDGE

Experienced Leadership Team

DROR BASHAN
President & CEO

Mr. Bashan has served as our President and Chief Executive Officer since June 2019. He has over 20 years of experience in the pharmaceutical industry with roles ranging from business development, marketing, sales and finance, providing him with both cross regional and cross discipline experience and a deep knowledge of the global pharmaceutical and health industries

EINAT BRILL ALMON, PH.D.
SVP, Chief Development Officer

Dr. Almon joined Protalix in Dec 2004 as a Senior Director and became our Senior Vice President, Product Development. She has many years of experience in the management of life science companies and projects including biotechnology and agrobiotech, with direct experience in clinical, regulatory, device and scientific software development, as well as a strong background and work experience in intellectual property.

EYAL RUBIN
SVP & CFO

Mr. Rubin has served as our SVP and Chief Financial Officer since September 2019. He brings to Protalix over 20 years of finance and capital markets experience, an extensive background in financial planning and operations, management and strategy and a deep knowledge of the biotechnology and pharmaceutical industries. Prior to Protalix, he served as EVP and CFO of BrainStorm Cell Therapeutics Inc., where he was responsible for corporate finance, accounting and investor relations activities.

YARON NAOS
SVP of Operations

Mr. Naos joined Protalix Ltd. in 2004 as a Senior Director for Operations and became our SVP, Operations. He has a wealth of hands-on experience and knowledge in the field of pharmaceutical development. Prior to Protalix, he served for a decade as R&D Product Manager at Dexxon Pharmaceutical Co., one of Israel's largest pharmaceutical companies, where he was responsible for technology transfer from R&D to production, and R&D activities that led to the commercialization of products.

YAEL HAYON, PH.D.
VP of R&D

Dr. Hayon, brings to Protalix over a decade of experience in pharmaceutical research in development, both in the scientific operations and the administrative functions. She most recently served as VP of Clinical Affairs of Syqe Medical Ltd. Prior to her role at Syqe Medical, Dr. Hayon held positions at LogicBio Therapeutics, Inc. and Stem Cell Medicine Ltd. Dr. Hayon holds a Ph.D. in Neurobiology & Hematology, and an M.Sc. in Neurobiology, Hebrew University Faculty of Medicine, Israel.