Note Regarding Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, 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. Actual results may differ materially from these forward-looking statements because of the Company's unproven business model, its dependence on new technologies, the uncertainty and timing of clinical trials, the Company's ability to develop and commercialize products, its dependence on collaborators for services and revenue, its substantial indebtedness and lease obligations, its changing requirements and costs associated with planned facilities, intense competition, the uncertainty of patent and intellectual property protection, dependence on key management and key suppliers, the uncertainty of regulation of products, the impact of future alliances or transactions and other risks described in the Company's filings with the 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.
Protalix’s Milestones

• First company to gain FDA approval for plant based production of a protein

• Platform can manufacture complex proteins, antibodies and vaccines

• Ability to orally deliver certain therapeutic proteins as demonstrated in animal models

• Scalable and capital efficient production
Moving forward, Protalix will continue to leverage multiple unique advantages of the proprietary plant based platform.

<table>
<thead>
<tr>
<th>Drivers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biologic optimization</strong></td>
<td>- Internal capabilities developed to improved biologic dynamics (e.g., glycosylation, half-life) of a protein</td>
</tr>
<tr>
<td></td>
<td>- Success in leveraging these capabilities in current pipeline</td>
</tr>
<tr>
<td><strong>IP</strong></td>
<td>- Potential workaround manufacturing IP for certain proteins</td>
</tr>
<tr>
<td><strong>Difficult to Express</strong></td>
<td>- Ability to express certain proteins that are difficult to express in other systems</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>- Lower cost of scale up (CapEx) and production (COGS, animal free – virus inactivation)</td>
</tr>
<tr>
<td><strong>Time to clinical material</strong></td>
<td>- Ability to more rapidly develop clinical material for testing versus other protein platforms</td>
</tr>
<tr>
<td><strong>Oral delivery</strong></td>
<td>- Protein protected inside plant cell enabling oral delivery demonstrated in animal models</td>
</tr>
</tbody>
</table>
Protalix Vision

To become a fully integrated bio-pharmaceutical company leveraging the advantages of Protalix’s unique technology platform
Strategy Highlights

- **Focus** on development of proprietary proteins with superior clinical profiles

- **Drive** clinical development of flagship product for Fabry disease
- **Accelerate** early clinical validation of other pipeline products

- **Maximize** the value of ELELYSO™
Pipeline Overview

- **PRX-102** for Fabry disease:
  - PI/II results

- **PRX-110** AIR DNAse for CF:
  - Initiate Clinical POC
  - Clinical POC results

- **PRX-106** Oral antiTNF:
  - Initiate Clinical POC
  - Clinical POC results

- **PRX-112** Oral GCD:
  - New formulation
**Fabry Disease**

- Rare genetic lysosomal storage disorder caused by deficiency in the enzyme α-galactosidase A. ~10,000 patients diagnosed worldwide.
- Lipids including globotriaosylceramide (Gb3) accumulate in key organs (kidney, heart, CNS) leading to a progressive and potentially life-threatening disease.
- ~$1.1B growing market (↑~11% from 2013)

### Key Players

<table>
<thead>
<tr>
<th>Fabrazyme® Genzyme (Sanofi)</th>
<th>Enzyme Replacement Therapy</th>
<th>Approved Worldwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replagal® Shire</td>
<td></td>
<td>Not approved in US</td>
</tr>
<tr>
<td>Migalastat, Amicus (phase III)</td>
<td>pharmacological chaperone</td>
<td>Only for patients with amenable mutations (~30%)</td>
</tr>
</tbody>
</table>
Fabry Disease Remains a High Unmet Need

- Renal insufficiency and renal failure
- Hypertension and cardiomyopathy
- Neuropathic pain
- Impact on function

Disease continues to progress even for patients on long term Enzyme Replacement Therapy (ERT)

Most pronounced 4-7 days prior to infusion

Rombach et al 2013
PRX-102 : A Chemically Modified Plant Derived Recombinant Human α-galactosidase-A Enzyme

- Novel proprietary ERT for Fabry disease
- Protein sub-units are covalently bound via PEGylation, resulting in a active and stable PEGylated dimer

**Proven Advantages**
- Larger amounts and longer duration of active enzyme in the circulation following IV infusion
- Enhanced uptake and activity in target organs
- Lower formation of antibodies

**Potential for**
- ✔ Better clinical efficacy
- ✔ Improved Safety profile
Single injection of PRX-102 compared to Replagal® Fabry mouse model
PRX-102: Enhanced Circulatory Half-Life - Higher Enzyme Quantities Available for Reaching Target Organs

T½ (hours)

<table>
<thead>
<tr>
<th></th>
<th>T½ (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRX-102 (0.2mg/Kg)</td>
<td>58.6</td>
</tr>
<tr>
<td>PRX-102 (1mg/Kg)</td>
<td>77.8</td>
</tr>
<tr>
<td>Agalsidase beta, 1.0mg/kg (n=33)</td>
<td>1.6</td>
</tr>
<tr>
<td>Replagal (0.2mg/Kg)</td>
<td>1.8</td>
</tr>
</tbody>
</table>

AUC

<table>
<thead>
<tr>
<th></th>
<th>AUC (µg/mL min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRX-102 (0.2mg/Kg)</td>
<td>4200</td>
</tr>
<tr>
<td>PRX-102 (1mg/Kg)</td>
<td>23607</td>
</tr>
<tr>
<td>Agalsidase beta, 1.0mg/kg (n=33)</td>
<td>601</td>
</tr>
</tbody>
</table>
PRX-102 for Fabry Disease: Study Program

- Open label, 18 naïve adult patients followed for six months with additional long-term follow-up
- Three dose groups of 0.2 mg/kg, 1 mg/kg and 2 mg/kg
- Patient enrollment completed in February 2015
- First interim data for safety and efficacy for the 0.2 mg/kg dose reported in January 2015
Meaningful Kidney Gb3 Reductions after Six Months of Treatment

Capillary Gb3 scores using semi quantitative method

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abnormal capillary score*</td>
<td>56%</td>
<td>17%</td>
</tr>
<tr>
<td>Normal capillary score**</td>
<td>44%</td>
<td>83%</td>
</tr>
<tr>
<td>n=5 0.2mg/kg</td>
<td></td>
<td>69.6%</td>
</tr>
</tbody>
</table>

Capillary mean Gb3 scores using quantitative BLISS method

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>6 months</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male n=3</td>
<td>5.7</td>
<td>1.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Female n=2</td>
<td>1.7</td>
<td>0.5</td>
<td>-65.4%</td>
</tr>
</tbody>
</table>

0.2mg/kg

* Abnormal capillary score defined as sum greater than 0.5 on a scale of 0-3 indicating capillary damage in >300 capillaries per biopsy.
** Normal capillary score defined as sum equal to or less than 0.5 on a scale of 0-3 capillary damage >300 capillaries per biopsy sample.
Dramatic Pain Improvement

“These interim results provide very encouraging efficacy and safety data with PRX-102...Of particular note are the meaningful reductions in pain and renal Gb3 levels and favorable safety”

Dr. Derralynn Hughes
Lysosomal Storage Disease Unit, Institute of Immunity and Transplantation, Royal Free London NHS Foundation Trust, London, UK
Principal investigator in the PRX-102 clinical trial

Brief Pain Inventory (BPI) scale

- Mean score of most intense pain within a 24-hour period
- * Impact or interference with daily functioning (e.g., walking ability, work, mood, enjoyment of life, relations with others)
Stability Across All Key Disease Parameters

Stable kidney function

Mean eGFR

Baseline 6 months

109.1 115.8

Mean Urine Protein

Baseline 6 months

186.3 167.8

Stable cardiac function

<table>
<thead>
<tr>
<th>Parameter</th>
<th>BL (mean)</th>
<th>6M (mean)</th>
<th>Mean Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVM</td>
<td>98.0</td>
<td>94.4</td>
<td>-3.6</td>
</tr>
<tr>
<td>LVMI</td>
<td>55.1</td>
<td>52.7</td>
<td>-2.4</td>
</tr>
<tr>
<td>EF</td>
<td>55.1</td>
<td>55.8</td>
<td>+0.7</td>
</tr>
</tbody>
</table>

n=6
6 mos.
0.2mg/kg
Favorable Safety and Tolerability

- Safety analysis for adverse events represents a total of 6.7 patient years
- PRX-102 was well tolerated, with the majority of events being mild and moderate
- Only one of the 12 patients evaluated for safety experienced hypersensitivity
- Only 33% of each of the cohorts 0.2 mg/kg dose and 1mg/kg dose developed antibodies
PRX-102 for Fabry Disease – Phase I/II
Positive Data Consistent Across All Clinical Parameters

“\nThe potential to treat patients with an improved alternative of enzyme replacement therapy would be a significant advance in the treatment of Fabry’s disease.\n”

- Improved pharmacokinetics compared to the currently marketed ERTs
- Meaningful Kidney Gb3 reductions
- Dramatic pain improvement
- Improvement or stability across all disease parameters
- Favorable safety and tolerability
- Low development of antibodies observed

Professor Raphael Schiffmann,
Director, Institute of Metabolic Disease at the Baylor Research Institute, Dallas, Texas
Principal investigator in the PRX-102 clinical trial
PRX-102 for Fabry Disease – Phase I/II
Upcoming Milestones

**Q3 2015:**
- Interim efficacy and safety results for the 1 mg/kg dose
- Longer term data for 0.2mg

**Q4 2015:**
- Final efficacy and safety results for the 0.2mg, 1 mg and 2mg/kg doses
- FDA End of Phase II meeting

**H1 2016:**
- Initiate phase III pivotal trial
Cystic Fibrosis (CF)

- Rare genetic disease where a defective CFTR protein causes a highly viscous mucus compromising digestive function and most prominently causing severe lung damage and loss of respiratory function.
- Patients undergo multiple daily physiotherapy sessions to improve breathing and are continuously treated with acute and preventive antibiotics due to persistent infection.
- 70,000 CF patients worldwide. Growing due to increase in life expectancy.

Pharmacological Therapies:

- **Drugs to reduce mucus viscosity**: Pulmozyme® (dornase alfa), Genentech: - Daily inhaled enzyme which breaks down extracellular DNA (DNase), lowering mucus viscosity.
  - Sales: $635M in 2014
- **CFTR protein potentiation**: Kalydeco® Vertex. Applicable to ~5% of patients.
PRX-110 AIR (Actin Inhibition Resistant): Plant derived chemically modified recombinant DNase for the treatment of Cystic Fibrosis

- Actin, a potent inhibitor of DNase is found in high concentration in CF patients’ sputum, decreases the enzyme's activity and can interfere with the effectiveness of inhaled dornase alpha (Pulmozyme®).

- PRX 110 AIR, is a chemically modified DNase enzyme resistant to inhibition by actin designed to enhance the enzyme’s efficacy in CF patients’ sputa.
PRX-110 AIR (Actin Inhibition Resistant) DNase for the Treatment of Cystic Fibrosis

Rheology Data Analysis in Human Sputum Samples

N=6

Development Plan PRX-110 AIR

- Pre-clinical safety models
- Safety and efficacy clinical study to commence in 2015
- Results in H1 2016
Oral Delivery of Therapeutic Proteins

Requirements for oral delivery of protein therapeutics

- Protein must survive the gastric environment
- Protein must be released from within the cells into the intestine
- Protein must be able to act within the intestine

The plant cell advantage:

- Plant cell wall (cellulose) serves as protective agent against the gastric environment
- Can serve as a natural oral administration vehicle
Anti-tumor Necrosis Factor Alpha (anti TNF α) for Inflammatory Diseases

- Anti TNF market >$30B with multiple blockbuster players (injections and IV infusions):
  - Humira (Abbvie)
  - Remicade (J&J /Merck)
  - Enbrel (Amgen/Pfizer)

- Multiple indications:
  - Rheumatoid Arthritis (~$16B)
  - Psoriasis (~$5.7B)
  - Crohn’s Disease (~$4.5B)
  - Others
**PRX-106 Oral Anti-tumor Necrosis Factor Alpha (anti TNF α) for Inflammatory Diseases**

**Protalix program profile**

- Orally delivered anti TNFα
- Potential to deliver higher doses locally with fewer side effects in a convenient dosage form

**Development plan**

- Pre-clinical safety and efficacy models
- Phase I healthy volunteers - ongoing
- Proof of concept in patients to commence Q4 2015

---

**PRX-106 Inflammatory Bowel Disease Animal Model**

![Graph showing TNFα levels in different treatment groups](image)
Financial Overview

• ~93.6M shares outstanding, as of March 31, 2015
• Dual listed on NYSE MKT and TASE
• Strong cash position: ~$48M in cash as of March 31, 2015
• Elelyso total in-market sales: $8.4M with net cash consumption of ~$7M, during three months ended March 31, 2015
• $69M convertible note due by September 2018
• 10 years of tax exemption after using NOLs (currently ~ $120M)
Protalix has an exciting road ahead...

- Promising results for flagship product for Fabry disease
- 2015 includes three molecules in clinical development
- Clinical stage pipeline targeting markets that are >$5 billion
- R&D focus to fill early pipeline with attractive opportunities for proteins designed to provide added clinical benefits
...and multiple near term catalysts

2015

- Initiate POC study for PRX-106 (oral anti TNF)
- Initiate POC study for PRX-110 AIR DNase (CF)
- Report interim results on the 1mg/kg dose from the ongoing Ph I/II trial for PRX-102 (Fabry disease)
- Report final results from ongoing Ph I/II trial for PRX-102 (Fabry disease)
- Hold End of Phase II meeting with FDA

H1 2016

- Initiate Phase III trial for PRX-102 (Fabry disease)
- Report results from POC for PRX-106 (oral anti TNF)
- Report results from POC for PRX-110 AIR DNase (CF)
Thank You

Moshe Manor
President and CEO
Protalix Biotherapeutics
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