

## ***UBS Global Healthcare Conference***

***May 21, 2013***

*at the forefront of therapies  
for rare and orphan diseases*

# Safe Harbor

*This presentation contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 relating to business, operations and financial conditions of Amicus including but not limited to preclinical and clinical development of Amicus’ candidate drug products, the timing and reporting of results from clinical trials evaluating Amicus’ candidate drug products. Words such as, but not limited to, “look forward to,” “believe,” “expect,” “anticipate,” “estimate,” “intend,” “plan,” “would,” “should” and “could,” and similar expressions or words, identify forward-looking statements. Although Amicus believes the expectations reflected in such forward-looking statements are based upon reasonable assumptions, there can be no assurance that its expectations will be realized. Actual results could differ materially from those projected in Amicus’ forward-looking statements due to numerous known and unknown risks and uncertainties, including the “Risk Factors” described in our Annual Report on Form 10-K for the year ended December 31, 2012. All forward-looking statements are qualified in their entirety by this cautionary statement, and Amicus undertakes no obligation to revise or update this presentation to reflect events or circumstances after the date hereof.*

# Company Mission



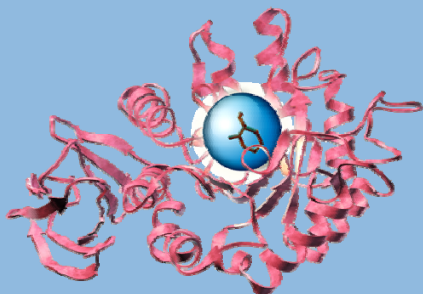
***Amicus Therapeutics is a biopharmaceutical company at the forefront of developing next-generation medicines to treat a range of rare and orphan diseases, with a focus on improved therapies for Lysosomal Storage Disorders***



# 2013 Investment Highlights



## PRODUCTS



## PLATFORM



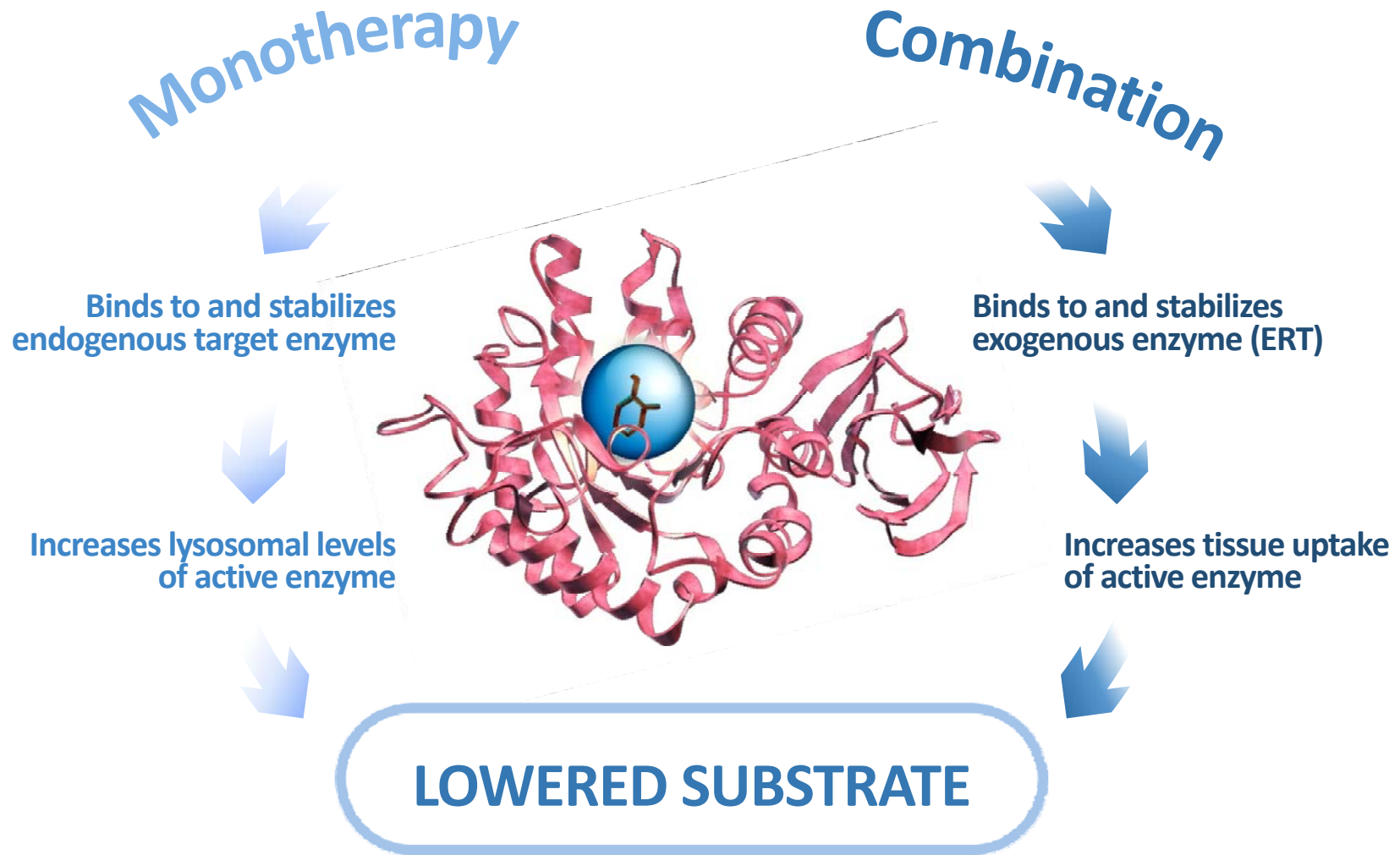
## PARTNERSHIPS



## FINANCIAL STRENGTH



# Core Technology and Focus: Potential to Transform LSD Treatments



# CHART™: Chaperone-Advanced Replacement Therapy



CHAPERONE-ADVANCED  
REPLACEMENT THERAPY

**CO-ADMINISTRATION**  
(Chaperones + Marketed ERTs)

**NEXT-GENERATION ERTs**  
(IV Co-formulated Chaperones +  
Proprietary Enzymes)

**NEXT-GENERATION ERTs WITH  
IMPROVED DELIVERY REGIMEN**

# Advanced Product Pipeline

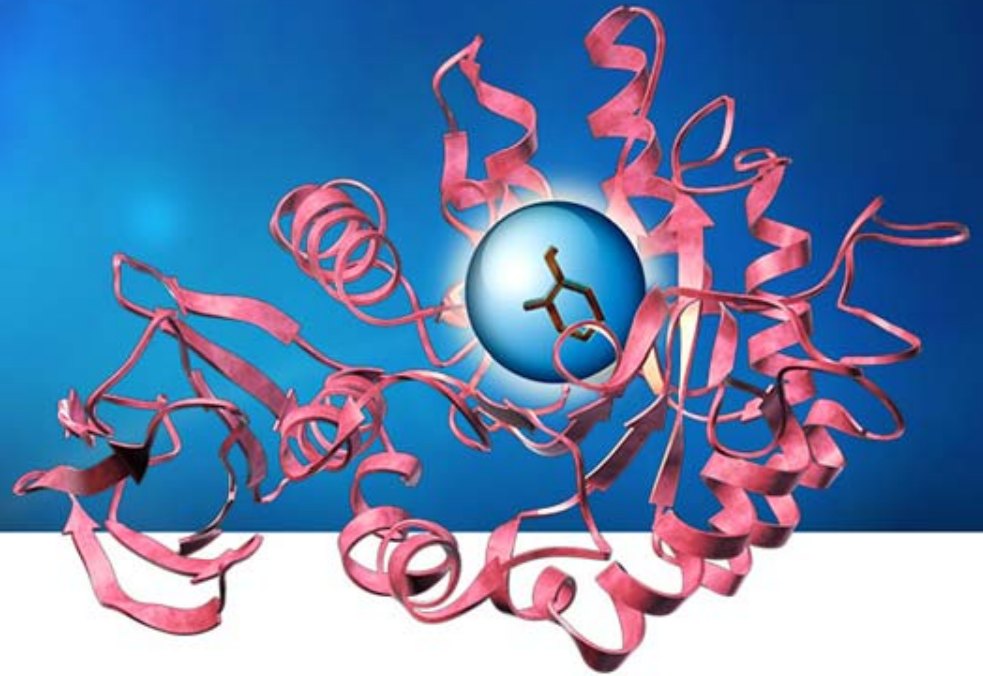
INDICATION	PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3	MARKETING APPLICATION	PARTNER
<b>Fabry Disease</b>						
Migalastat HCL						GSK
<b>Parkinson's</b>						
AT3375						Michael J. Fox Foundation
<b>Fabry Disease</b>						
Migalastat HCL + Fabrazyme/Replagal						GSK, JCR Pharmaceuticals
Migalastat HCL + JR-051						
<b>Pompe Disease</b>						
AT2220 + Myozyme/Lumizyme						
AT2220 + Proprietary ERT						
<b>Other LSDs</b>						
Next-Generation ERTs						

MONOTHERAPY

CO-ADMINISTRATION

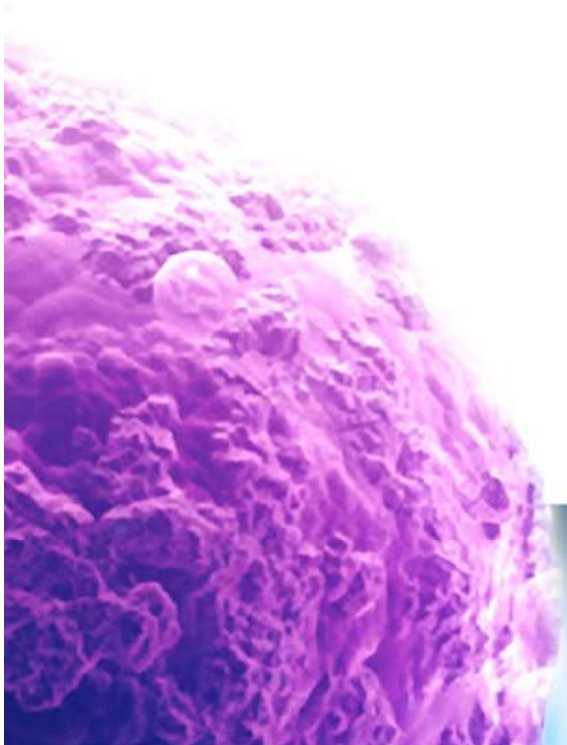
NEXT-GENERATION ERTs (co-formulation)





# ***Pharmacological Chaperones***

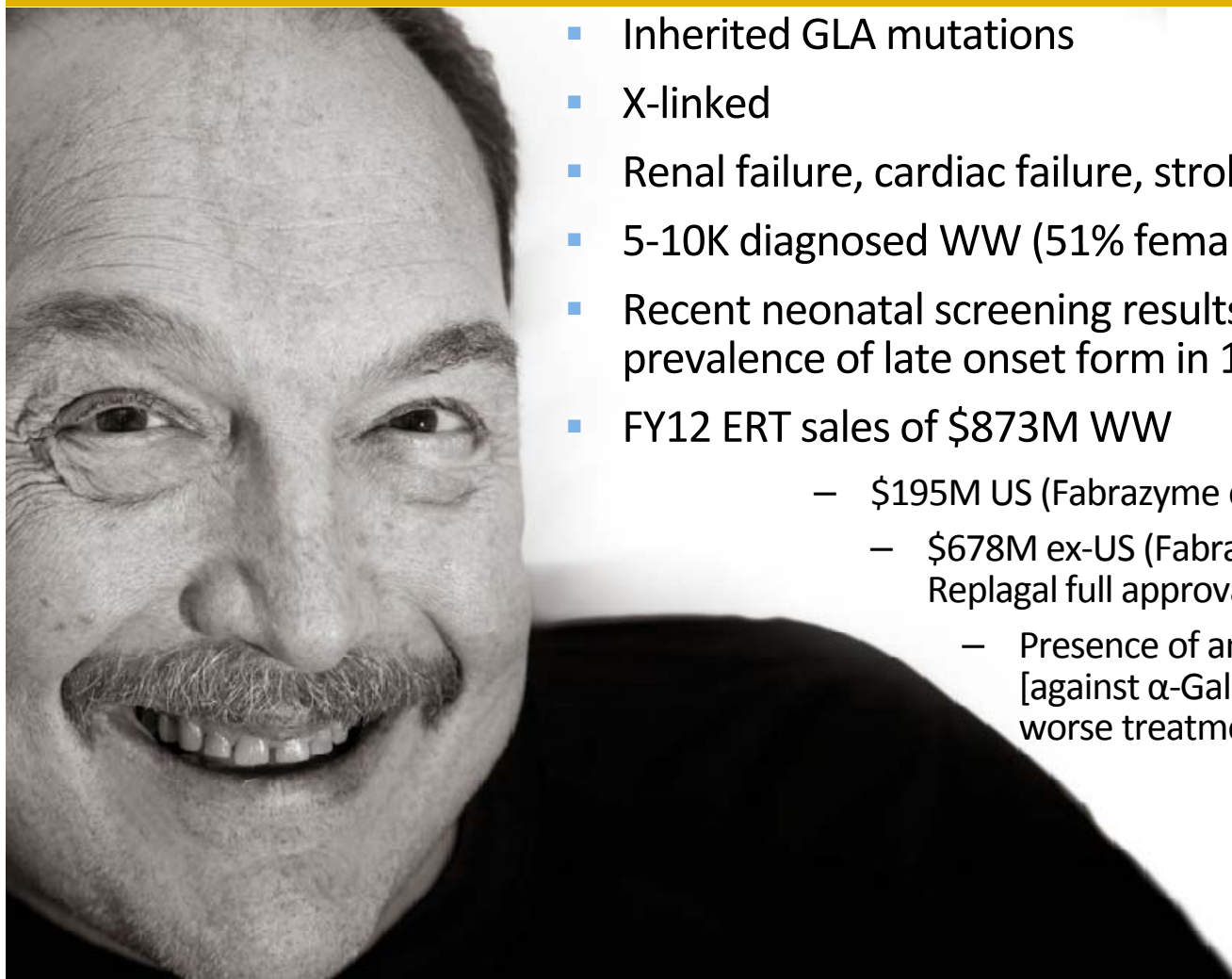
***Migalastat HCl Monotherapy  
for Fabry Disease***



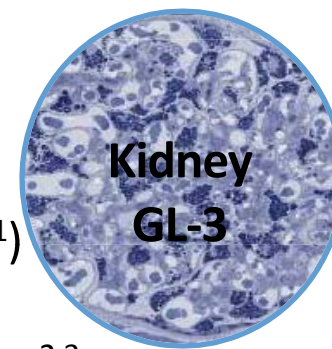


# Fabry Disease Overview

## Fatal, Progressive, Multi-System Lysosomal Storage Disease

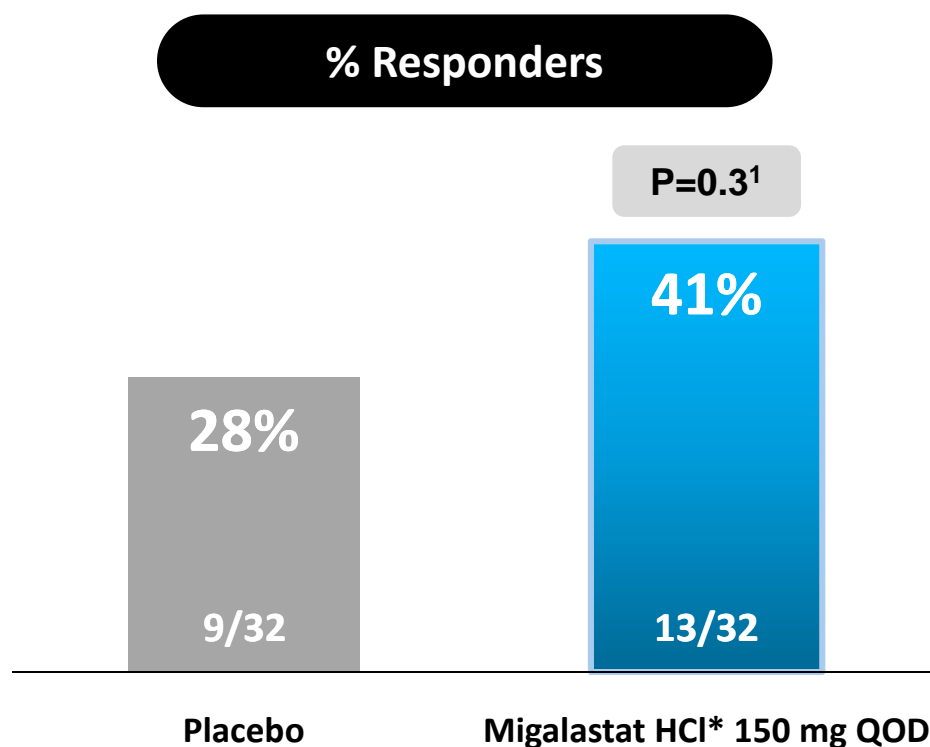


- Inherited GLA mutations
- X-linked
- Renal failure, cardiac failure, stroke
- 5-10K diagnosed WW (51% female/49% male<sup>1</sup>)
- Recent neonatal screening results suggest prevalence of late onset form in 1:3000 or more<sup>2,3</sup>
- FY12 ERT sales of \$873M WW
  - \$195M US (Fabrazyme conditional approval)
  - \$678M ex-US (Fabrazyme and Replagal full approval)
    - Presence of antibodies [against  $\alpha$ -Gal A] may reflect worse treatment outcome<sup>4</sup>



# Phase 3 Study 011: Top-Line Stage 1 (6-Month) Results

**Primary Endpoint - Responder Analysis (ITT):  
≥ 50% Reduction from Baseline in Kidney Interstitial Capillary GL-3**

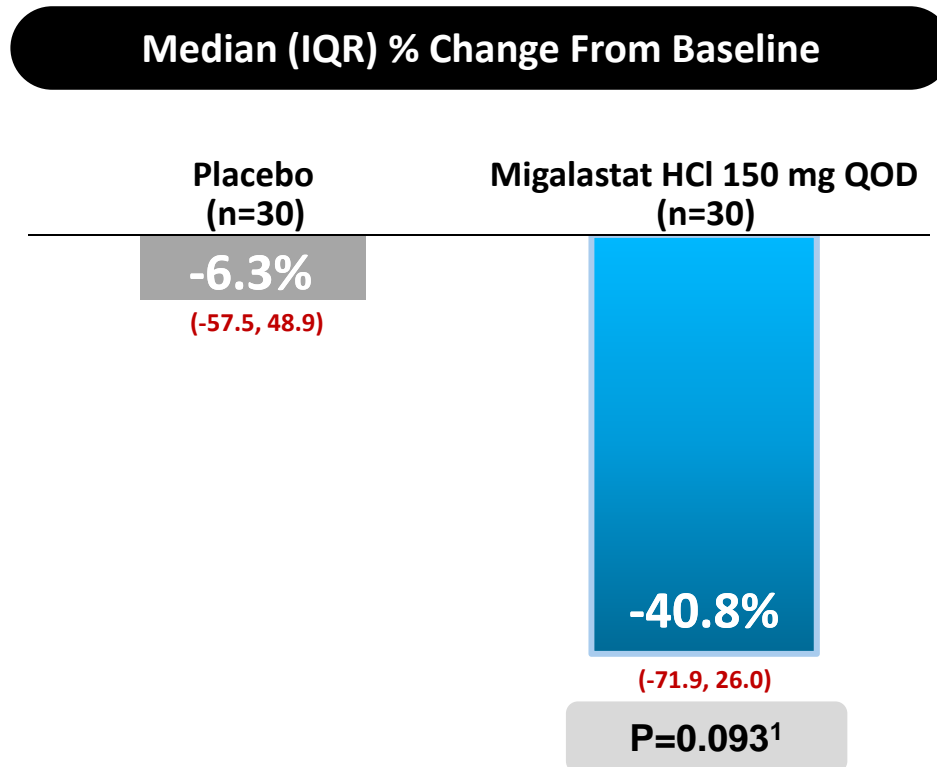


\* migalastat is not authorized for use and is an investigational product

<sup>1</sup> Difference=12.5% (95% CI: -13.4, 37.3). Migalastat HCl minus placebo in % responders. P-value based on exact Cochran-Mantel-Haenszel test stratified by gender. Subjects with baseline biopsy but missing month 6 biopsy counted as a failure.

# Phase 3 Study 011: Top-Line 6-Month Results

## Secondary Analysis of Primary Endpoint (mITT\*) Median Percent Change From Baseline in Kidney Interstitial Capillary GL-3



\* mITT: Subjects who had a baseline and at least one on-therapy assessment. Median baseline average number of inclusions per capillary (0.23 placebo, 0.18 Migalastat HCl)

<sup>1</sup> p-value from ANCOVA based on ranked observations adjusting for baseline and sex

# Phase 3 Study 011: 6-Month Safety

## Most Common Treatment Emergent Adverse Events ( $\geq 10\%$ of Subjects)

Adverse event	Placebo (n=33)	Migalastat HCl (n=34)
Any Event	91%	91%
Headache	21%	35%
Fatigue	12%	12%
Nausea	12%	9%
Nasopharyngitis	15%	6%
Paresthesia	9%	12%

No serious adverse events deemed by investigators to be treatment-related  
No withdrawals due to adverse events



# Phase 3 Study 011: Status and Milestones

**1H 2013**

**2H 2013**

**12-Month Treatment Extension  
& Long-Term Open-Label Extension\***

## **Stage 2: (12-month) data 3Q13**

- Pre-specified descriptive comparisons
- 12-month data from migalastat HCl group
- 6-month data from placebo crossover group

## **FDA Meeting Anticipated 2H13**

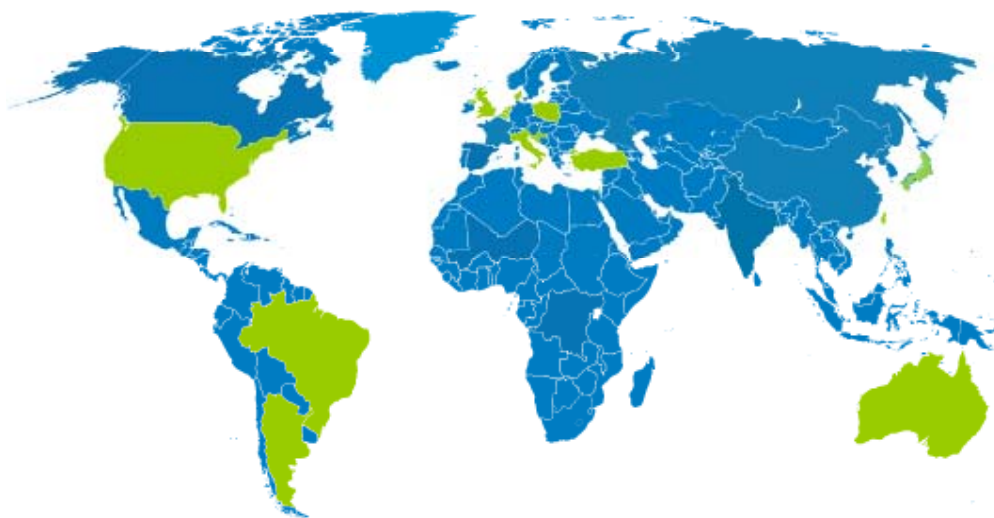
- 6-month analysis is Stage 1 data
- FDA to consider entirety of Study 011 (Stage 1+2) data for NDA submission
- No single endpoint will be determinative

# Phase 3 Study 012

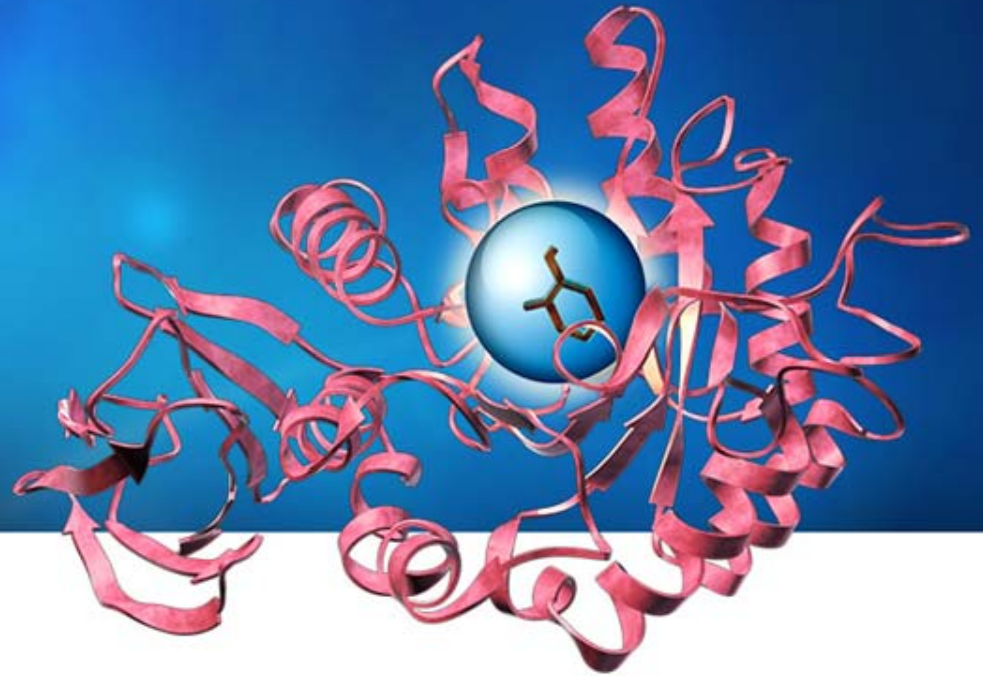
Ongoing 18-Month Open-Label Study Comparing Migalastat HCl (150 mg QOD) to ERT (Fabrazyme and Replagal) in Fabry Patients with Amenable Mutations\*

## THE ATTRACT STUDY

AT1001 Therapy Compared to Enzyme Replacement in Fabry Patients with AT1001-responsive Mutations: a Global Clinical Trial



- Switch to migalastat HCl or remain on ERT
- 60 total patients (1.5:1 randomization)
- No kidney biopsies
- Clinical outcome is renal function (Iohexol GFR)
- Data anticipated 2H14



***Chaperone-ERT  
Combination Platform  
for Lysosomal Storage Diseases***



CHAPERONE-ADVANCED  
REPLACEMENT THERAPY

# LSD Products Today

## Potential Limitations



- Enzyme Instability in Blood & Infusion Bag
- Dosing Limitations & Duration of Infusion
- Poor Enzyme Uptake into Tissues
- Immunogenicity



# CHART™: Chaperone-Advanced Replacement Therapy

CHART Offers Multiple Potential Ways to Improve ERT Outcomes for Patients



**Proposed MOA:**

**Bind to and  
Stabilize Enzyme,  
Keeping Properly  
Folded**

**Increase Active Enzyme  
in Circulation**

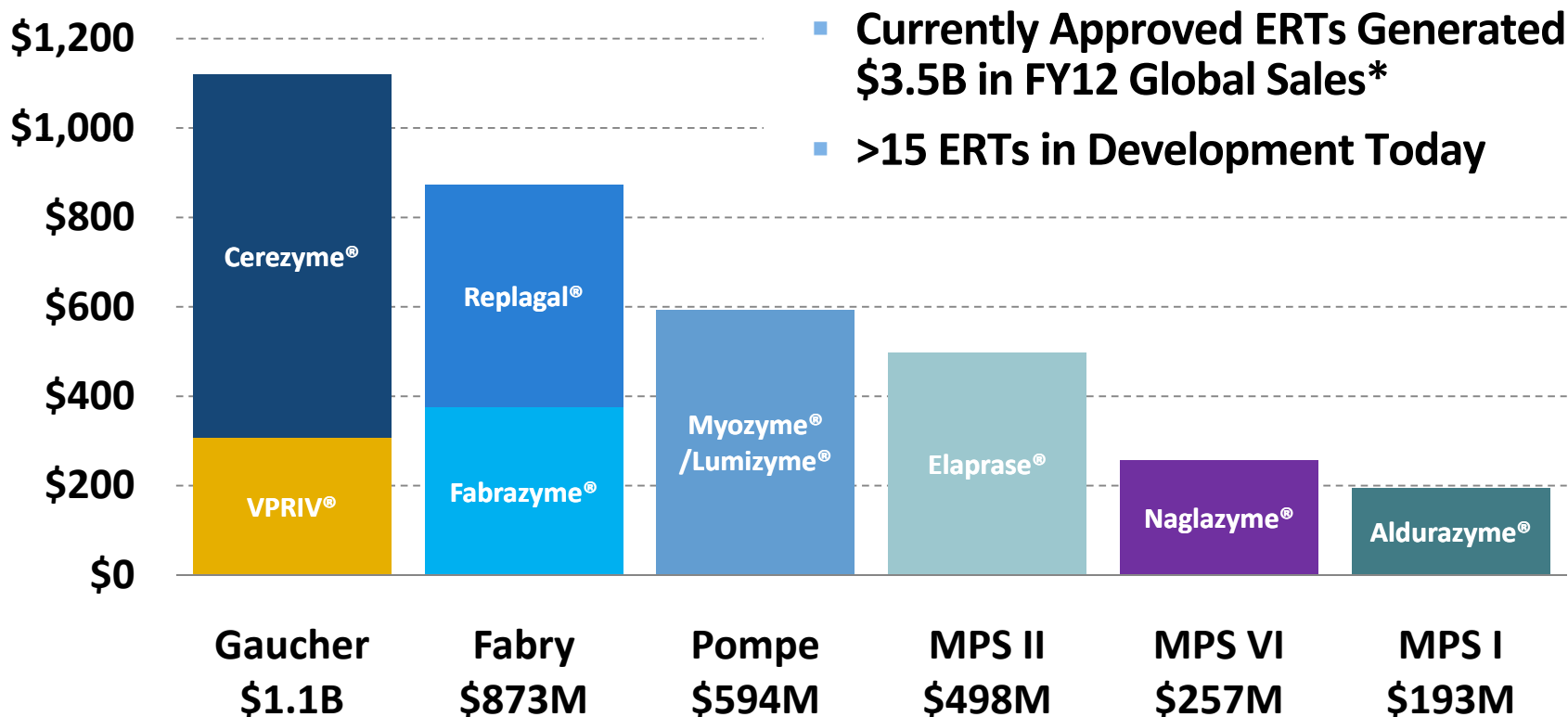
**Increase Enzyme Uptake  
into Tissues**

**Mitigate Immune Response**

**Improve Dosing/Delivery**

# \$3.5B Current ERT Market for LSDs

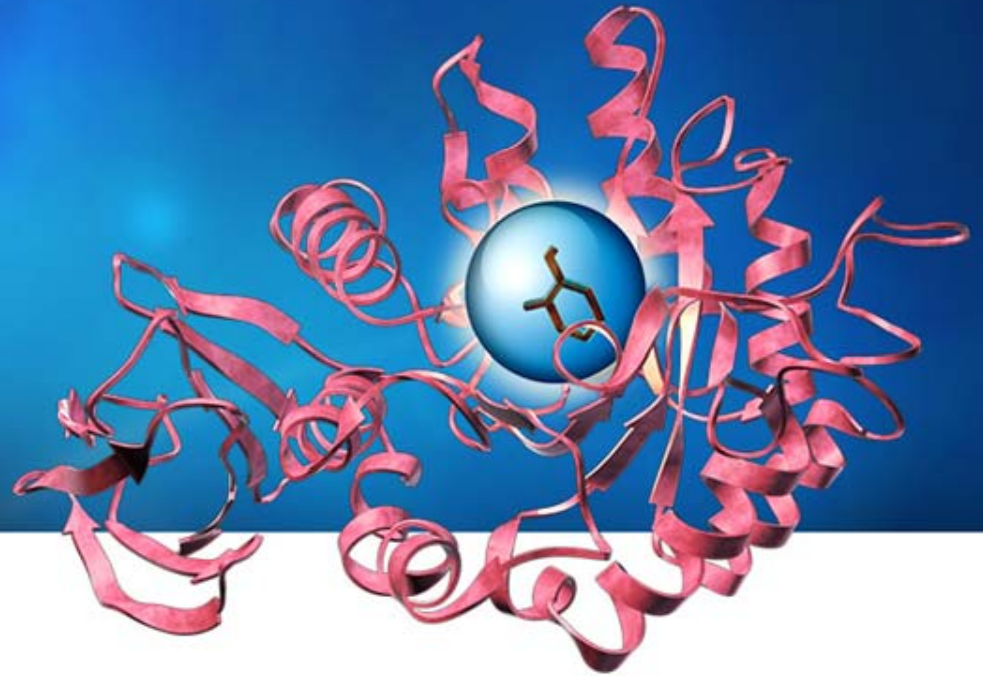
## FY12 Global Sales (\$M)



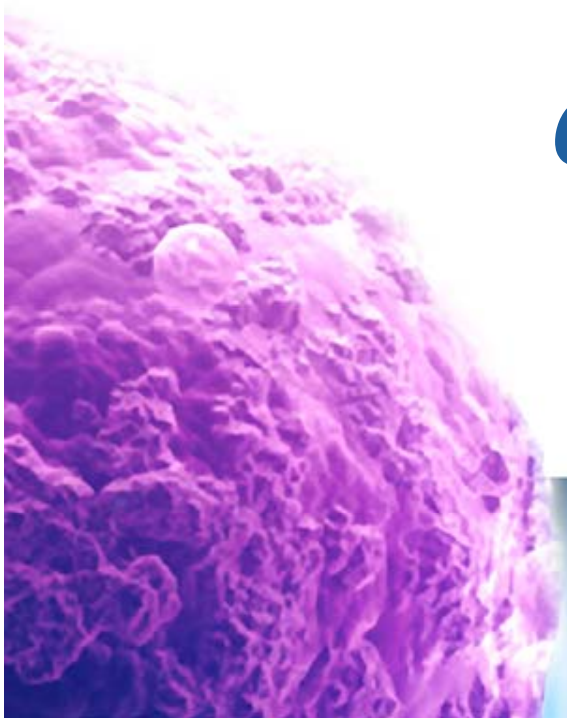
\*Source: 10-Ks from Shire, Sanofi, and BioMarin. Sales of Elelyso for Gaucher disease not shown.

Fabrazyme, Cerezyme, Myozyme and Lumizyme are registered trademarks owned by Sanofi-Aventis. VPRIV, Replagal and Elaprase are registered trademarks owned by Shire.

Naglazyme and Aldurazyme are registered trademark owned by BioMarin



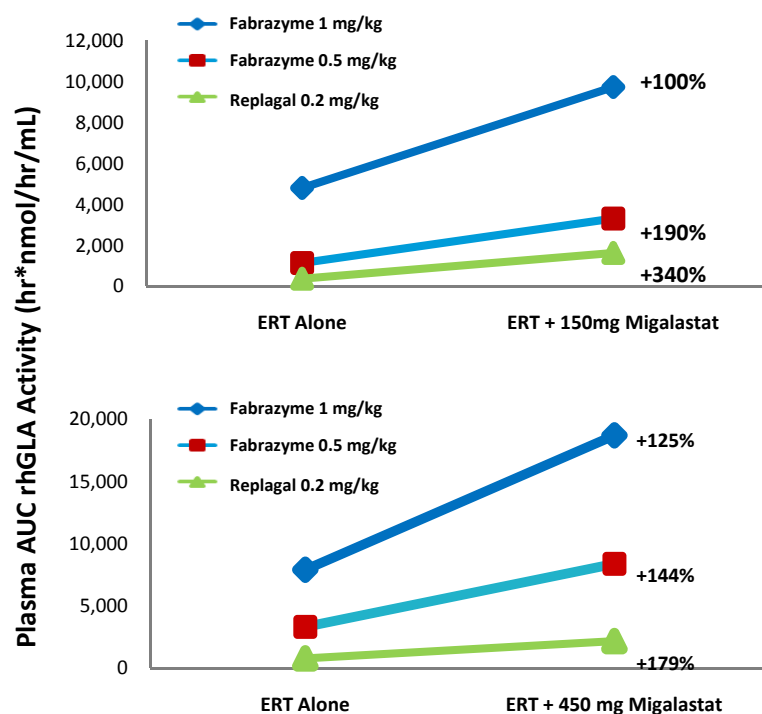
# ***Chaperone-ERT Combinations*** ***for Fabry Disease***



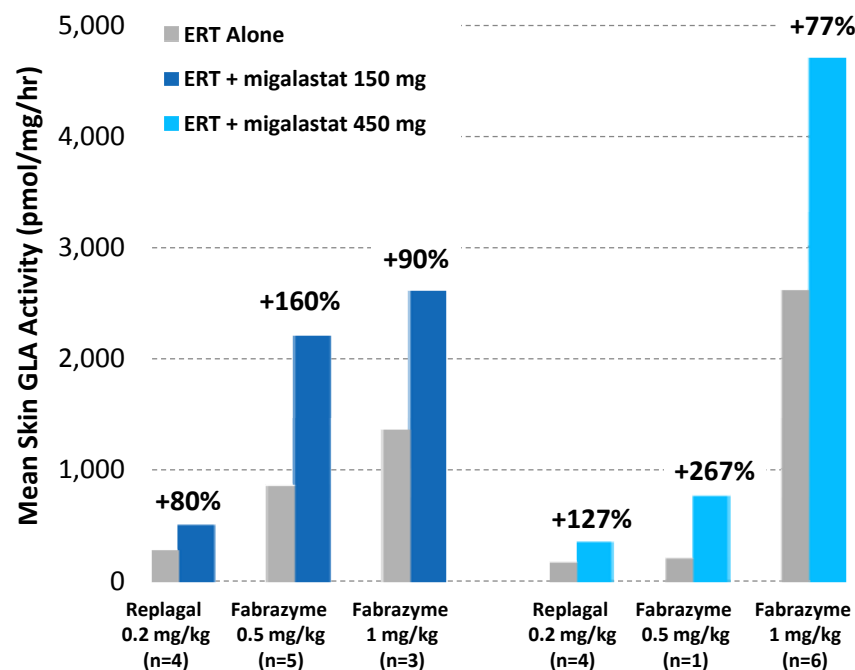
# Fabry Co-Administration: Phase 2 Study 013

Oral Migalastat HCl<sup>1</sup> Co-Administered with Fabrazyme or Replagal Led to Consistent Increases in Active Plasma Enzyme Levels and Tissue Uptake<sup>2</sup>

## Plasma rhGLA Activity (Area Under Curve)



## Mean Skin GLA Activity (Day 2)



<sup>1</sup> Single oral dose 2 hours prior to ERT infusion ; <sup>2</sup> Bichet, et al., A Phase 2a Study to Investigate the Effect of a Single Dose of Migalastat HCl, a Pharmacological Chaperone, on Agalsidase Activity in Subjects with Fabry Disease, LDN WORLD 2013.

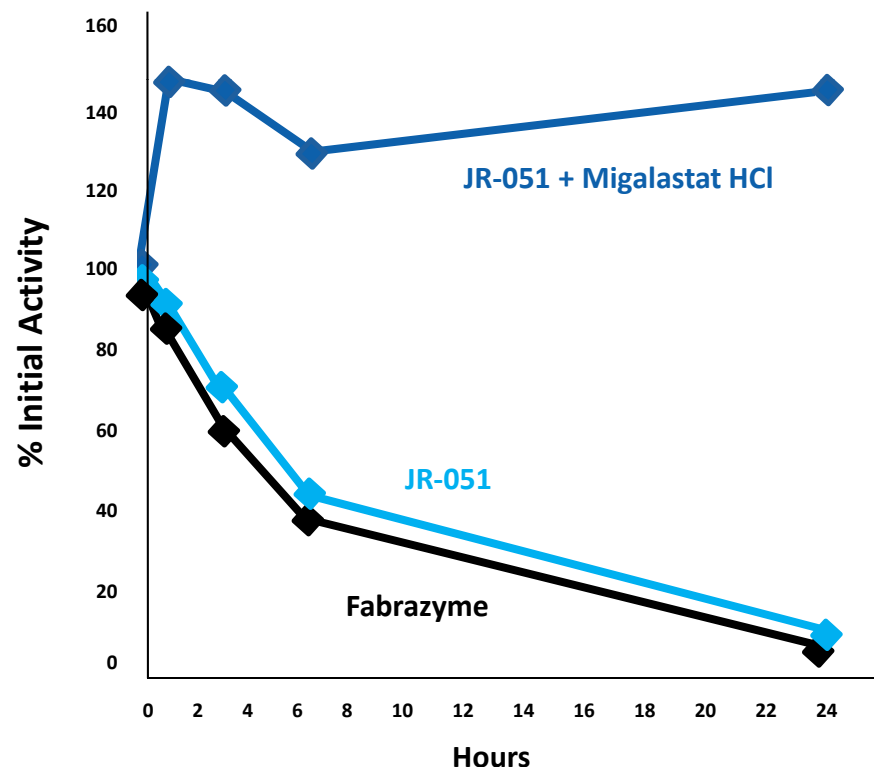


# Fabry Co-Formulation: Proprietary ERT JR-051\* + Migalastat HCl

(Preliminary Results)

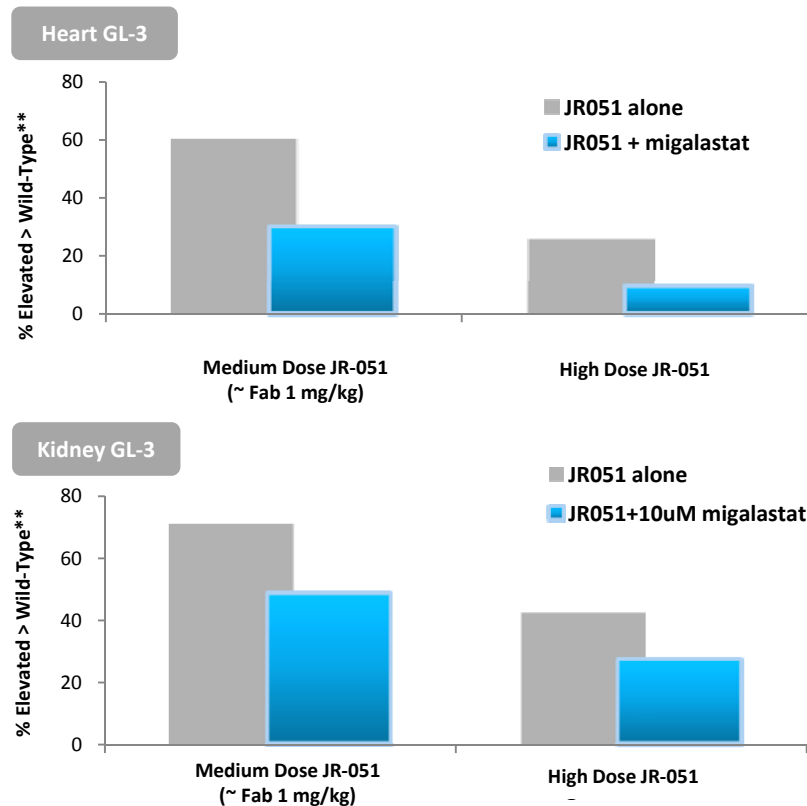
## Stabilization of JR-051 *ex vivo*

*Migalastat HCl Prevents Loss of Enzyme Activity in Blood*



## JR-051 +/- Migalastat HCl in GLA Knock-Out Mice (Repeat-Dose IV Administration)

*Co-Formulation Results in Significantly Greater GL-3 Reduction than Previously Observed*



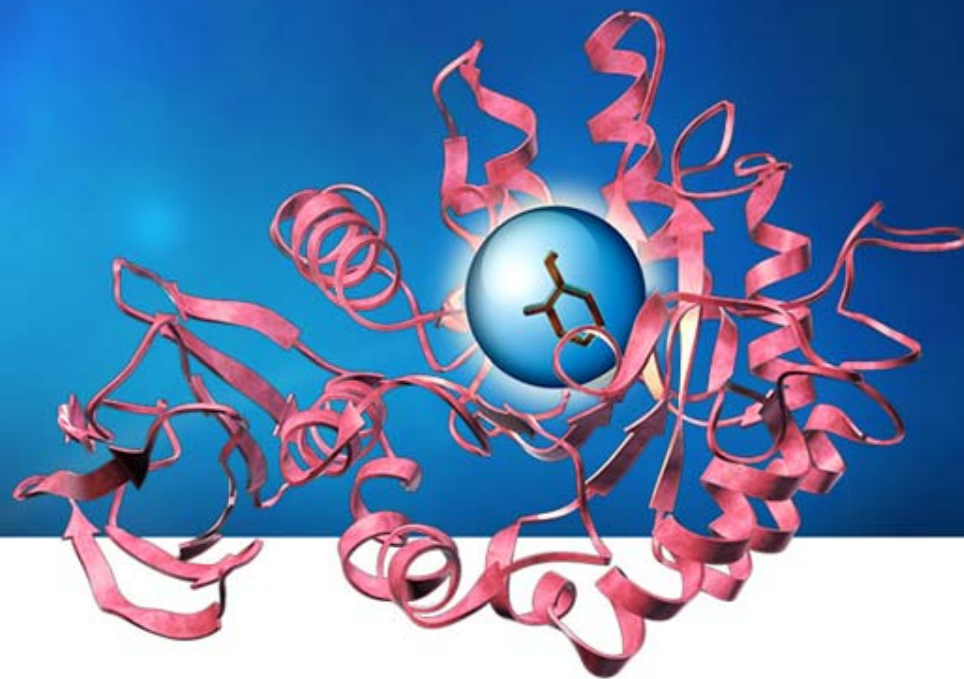
\*JR-051 designed to be biosimilar to Fabrazyme; \*\*0 = wild-type, 100 = untreated KO mouse

# Fabry Co-Formulation

Advancing JR-051 + Migalastat HCl Toward Clinic



- Now manufacturing at 2,000 L scale
- IND-enabling studies underway
- IND submission planned 4Q13 for potential entry into clinic in early 2014



***CHART™ Programs***  
***for Pompe Disease***



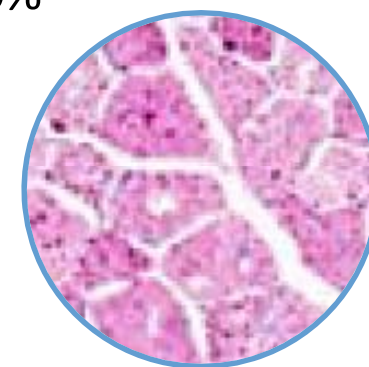
CHAPERONE-ADVANCED  
REPLACEMENT THERAPY

# Pompe Disease Overview

## Severe, Fatal Neuromuscular Disease



- Inherited deficiency in lysosomal enzyme GAA
- Glycogen accumulation
- First and only approved ERTs (recombinant GAA): Myozyme/Lumizyme (\$594M in FY12 sales)
  - Standard infusion every-other-week
  - Infusion-associated reactions in ~50% of late-onset patients<sup>1</sup>
  - Attenuated therapeutic response in infantile Pompe patients with high sustained antibody titer<sup>2</sup>
  - High antibody titer shown to affect treatment in adults<sup>3</sup>



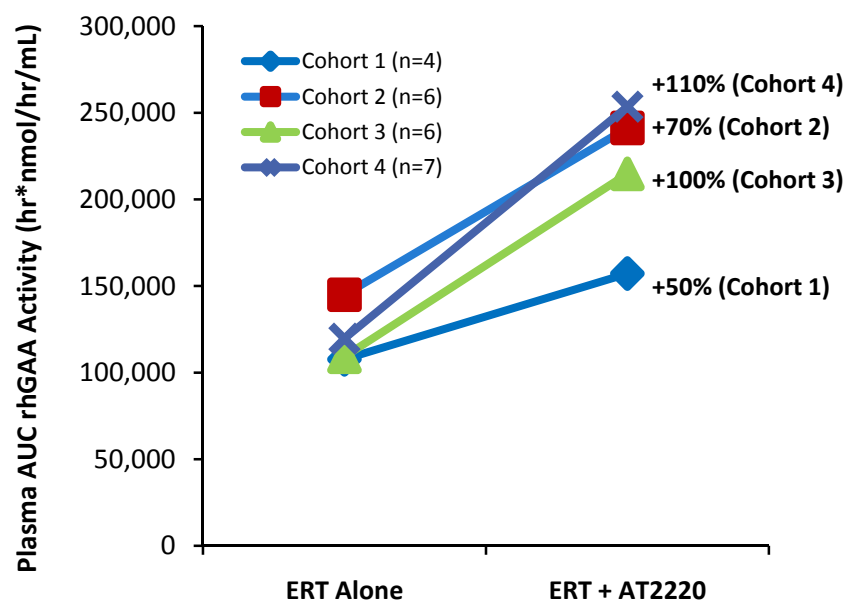
Elevated Glycogen  
in Muscle



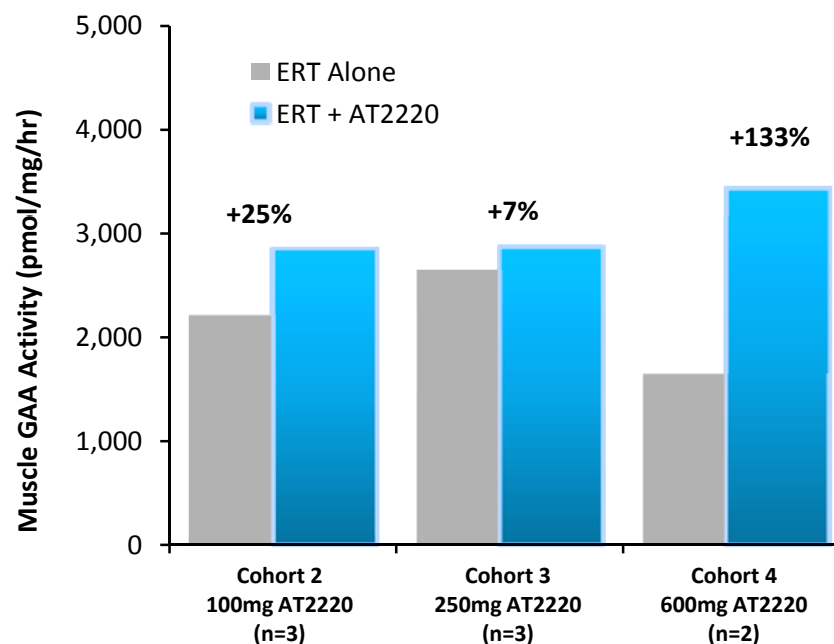
# Pompe Co-Administration: Phase 2 Study 010

Oral AT2220 Co-Administered with Myozyme/Lumizyme Also Leads to Consistent Increases in Plasma Enzyme Activity and Tissue Uptake<sup>1</sup>

Plasma AUC rhGAA Activity



Muscle GAA Activity (Day 3)\*



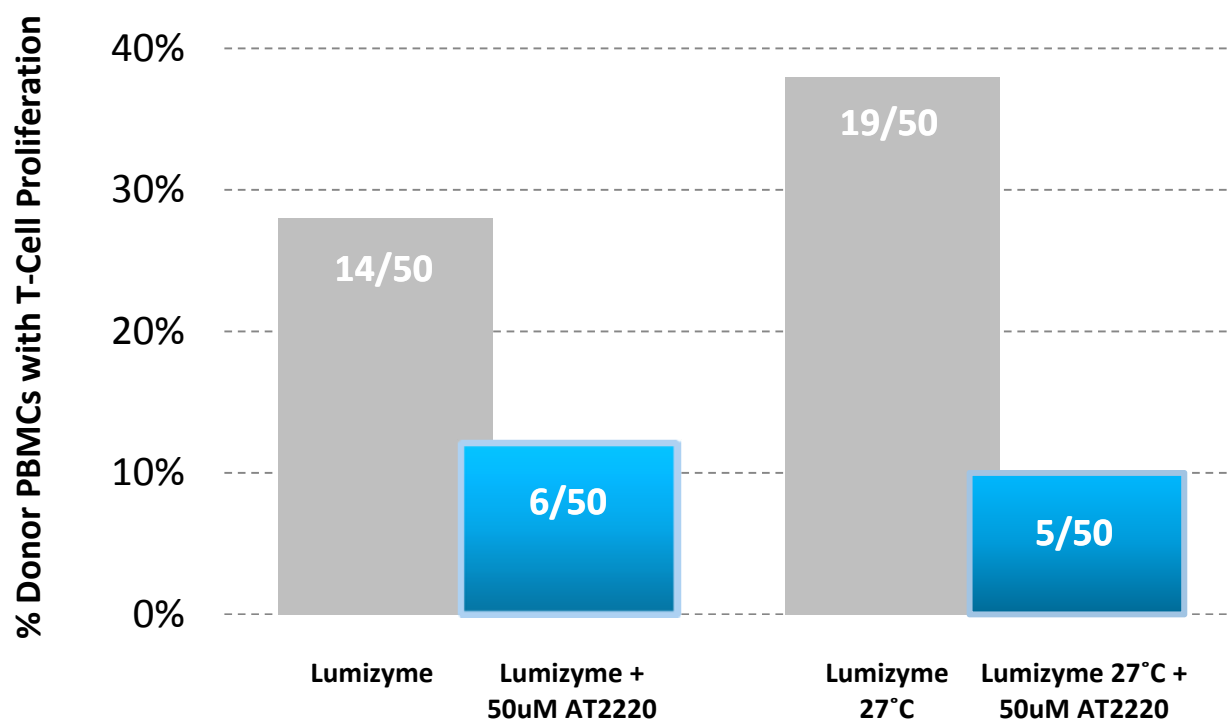
<sup>1</sup>Kishnani, et al., A Phase 2a Study to Investigate Drug-Drug Interactions between Escalating Doses of AT2220 (Duvoglustat Hydrochloride) and Acid Alfa-Glucosidase in Subjects with Pompe Disease, LDN WORLD 2013

\*Cohort 1 (AT2220 50 mg) muscle GAA activity not shown; 50 mg dose did not demonstrate meaningful change in tissue uptake (muscle)

# Pompe Co-Administration: Potential to Mitigate ERT Immunogenicity

AT2220 Mitigates Human T-Cell Response Induced by Lumizyme *ex vivo*  
and May Significantly Reduce Immunogenicity of Lumizyme

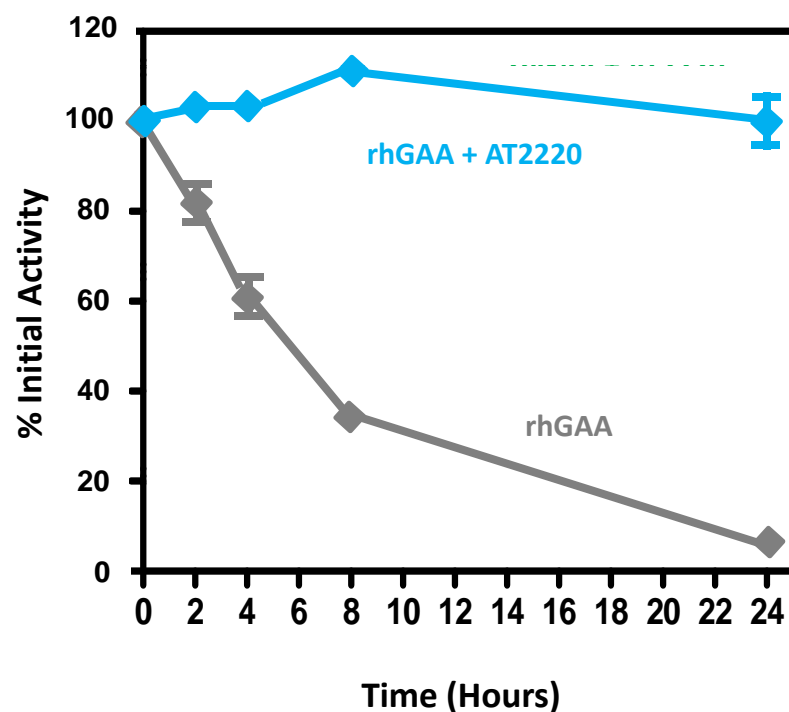
## T-Cell Proliferation in PBMCs from 50 Healthy Volunteers



# Pompe Co-Formulation: AT2220 + Myozyme/Lumizyme (rhGAA)<sup>1</sup>

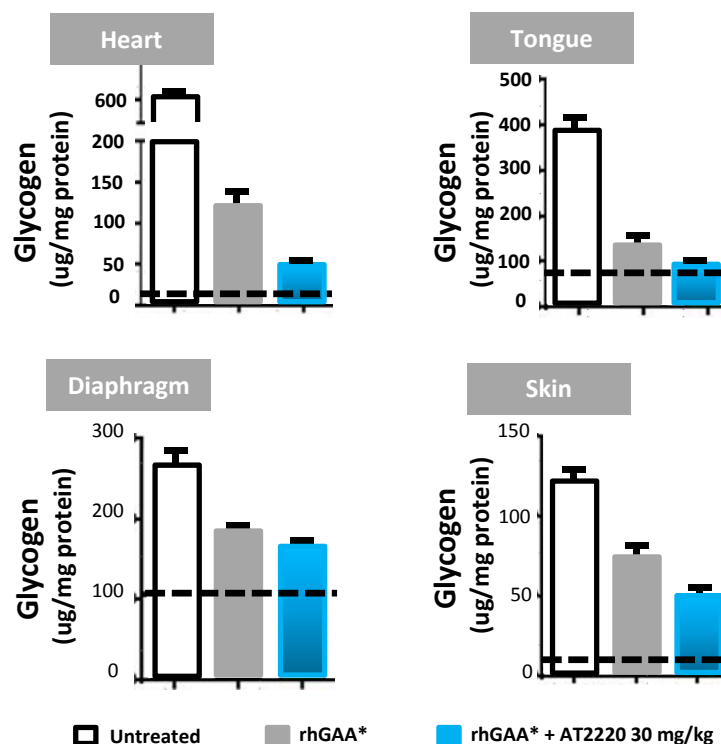
AT2220 Prevents Loss of Enzyme Activity in Blood and  
Co-Formulation Results in Significantly Greater Glycogen Reduction

## Stabilization of rhGAA *ex vivo*



## rhGAA +/- AT2220 in GAA Knock-Out Mice

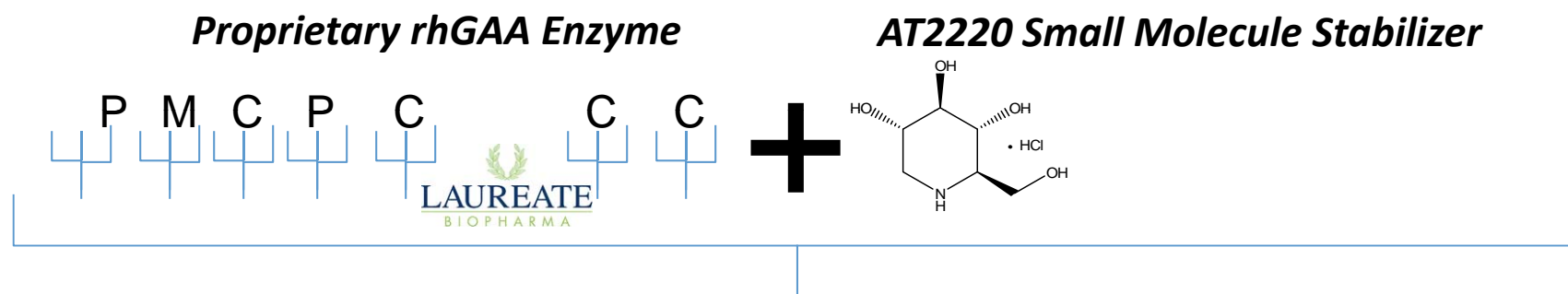
### Repeat-Dose IV Administration



<sup>1</sup>Khanna, *et al.*, Exploring the Use of a Co-formulated Pharmacological Chaperone AT2220 with Recombinant Human Acid Alpha-Glucosidase for Pompe Disease, LDN WORLD 2013

# Next-Generation Pompe ERT: AT2220 + Proprietary rhGAA Enzyme

Leveraging CHART Platform with Internal Biologics  
Capabilities to Develop Next-Generation ERT



Potential Improvements

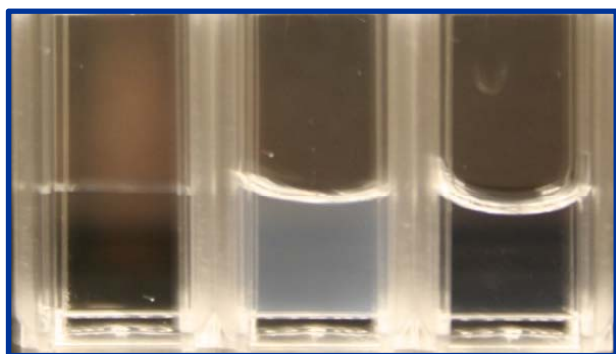
- Optimized glycosylation
- De-immunization
- Increased exposure and tissue uptake
- Reduced immunogenicity
- SubQ delivery



# Next-Generation Pompe ERT

## SubQ Delivery Potential

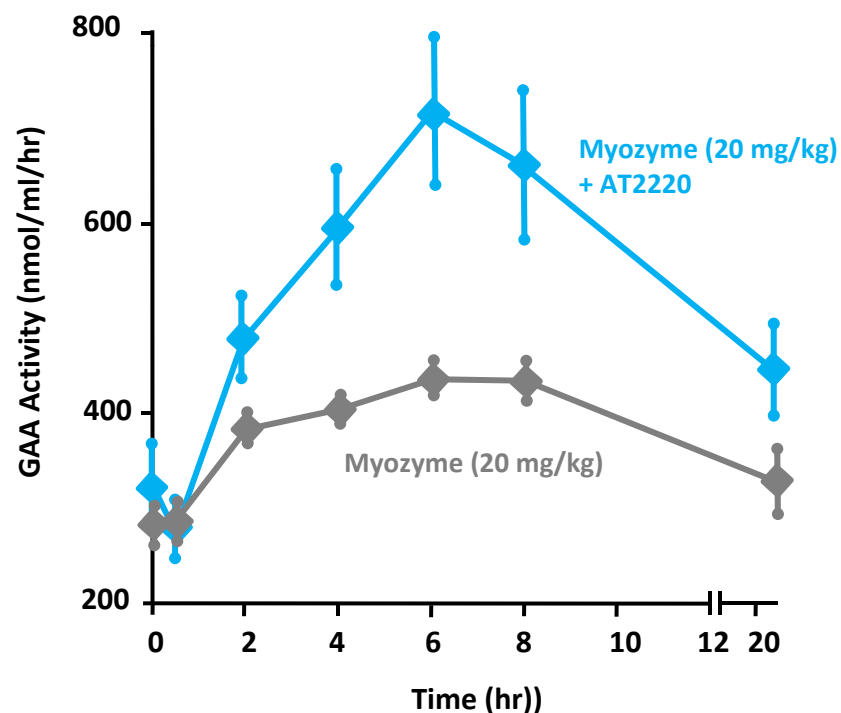
### Increased ERT Stability and Prevention of Aggregation



Myozyme	-	+	+
AT2220	-	-	+

Aggregation assessed after 4 weeks at 37°C

### Increased Circulating Levels of Active rhGAA in Rats



# CHART Pathways for Pompe Disease

**Co-Administration  
(AT2220-IV +  
Marketed ERTs)**

**Repeat-dose  
clinical study  
expected to  
begin 3Q13**

**Next-Generation ERT  
(AT2220 + Proprietary  
rhGAA Enzyme)**

**Preclinical  
studies  
underway**

# 2013 Anticipated Clinical Milestones

## Building Shareholder Value

### Migalastat HCl Monotherapy for Fabry Disease

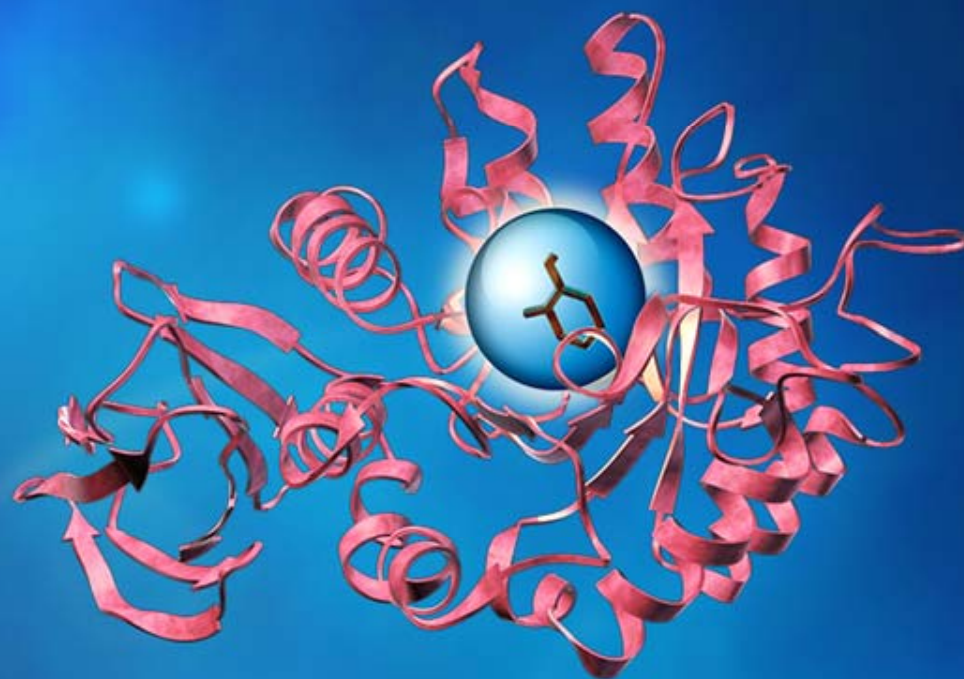
Study 011 6-Month data at LDN WORLD	Feb 2013
Top-line Study 011 12-month data	3Q 2013
FDA meeting to discuss U.S. approval pathway	2H 2013

### Pompe Co-Administration

Phase 2 Study 010 data at LDN WORLD	Feb 2013
Initiation of repeat-dose clinical study	3Q 2013

### Fabry Co-Formulation (Migalastat HCl+JR-051)

IND Submission	4Q 2013
Entry into Clinic	1Q 2014



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