# 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): July 8, 2019



#### AMICUS THERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

**Delaware** (State or Other Jurisdiction of Incorporation) **001-33497** (Commission File Number)

**71-0869350** (I.R.S. Employer Identification No.)

1 Cedar Brook Drive, Cranbury, NJ 08512

(Address of Principal Executive Offices, and Zip Code) 609-662-2000 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:

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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, \$0.01 Par Value	FOLD	NASDAQ

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

Emerging growth company o

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. o

#### Item 8.01. Other Events.

On July 8, 2019, Amicus Therapeutics, Inc. updated and released presentation materials it plans to use in meetings with investors and analysts. A copy of this presentation is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

Exhibits:

 Exhibit No.
 Description

 99.1
 Investor Presentation - July 2019

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.

AMICUS THERAPEUTICS, INC.

Date: July 8, 2019

By: /s/ Ellen S. Rosenberg
Name: Ellen S. Rosenberg
Title: Chief Legal Officer and Corporate Secretary



# General Corporate & Gene Therapy Overview:

At the Forefront of the Human Genome Medicine Revolution



**July 2019** 

## Forward-Looking Statements

This presentation contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 relating to preclinical and clinical development of our product candidates, the timing and reporting of results from preclinical studies and clinical trials, the prospects and timing of the potential regulatory approval of our product candidates, commercialization plans, manufacturing and supply plans, financing plans, and the projected revenues and cash position for the Company. The inclusion of forward-looking statements should not be regarded as a representation by us that any of our plans will be achieved. Any or all of the forward-looking statements in this presentation may turn out to be wrong and can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. For example, with respect to statements regarding the goals, progress, timing, and outcomes of discussions with regulatory authorities, and in particular the potential goals, progress, timing, and results of preclinical studies and clinical trials, actual results may differ materially from those set forth in this release due to the risks and uncertainties inherent in our business, including, without limitation: the potential that results of clinical or preclinical studies indicate that the product candidates are unsafe or ineffective; the potential that it may be difficult to enroll patients in our clinical trials; the potential that regulatory authorities, including the FDA, EMA, and PMDA, may not grant or may delay approval for our product candidates; the potential that we may not be successful in commercializing Galafold in Europe, Japan, the US and other geographies or our other product candidates if and when approved; the potential that preclinical and clinical studies could be delayed because we identify serious side effects or other safety issues; the potential that we may not be able to manufacture or supply sufficient clinical or commercial products; and the potential that we will need additional funding to complete all of our studies and manufacturing. Further, the results of earlier preclinical studies and/or clinical trials may not be predictive of future results. With respect to statements regarding projections of the Company's revenue and cash position, actual results may differ based on market factors and the Company's ability to execute its operational and budget plans. In addition, all forward-looking statements are subject to other risks detailed in our Annual Report on Form 10-K for the year ended December 31, 2018. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, and we undertake no obligation to revise or update this news release to reflect events or circumstances after the date hereof.



# A RARE COMPANY.

Amicus is one of the world's leading fully-integrated, global rare disease biotechnology companies





Gene Therapy
PLATFORM
Protein Engineering
& Glycobiology



World Class





600 + EMPLOYEES in 27 Countries

~\$580M+

Cash

as of 6/30/19 (Proforma)











Nearly 50+ Lysosomal Disorders and More Prevalent Rare Diseases



# A RARE OPPORTUNITY.

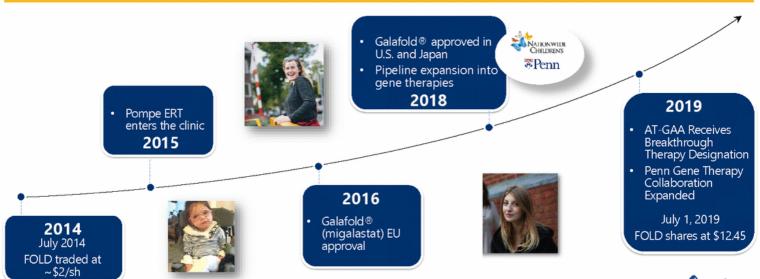
With a recently launched, highly successful commercial precision medicine for Fabry disease, a late stage novel Enzyme Replacement Therapy with Breakthrough Therapy Designation in Phase 3 studies for Pompe disease (AT-GAA) and now the largest number of Gene Therapy programs for rare diseases in the industry



Amicus has built a deep and highly distinct "Rare Portfolio" of products, technologies and programs

# Creating Shareholder Value

While Amicus shares have appreciated more than ~600% over the past five years, there is now an opportunity for further and substantial shareholder value creation







# Galafold<sup>®</sup> (migalastat) Global Launch...

...taking a leadership role in the treatment of Fabry disease

"We push ideas as far and as fast as possible"
- Amicus Belief Statement

Amicus

## Galafold Snapshot (as of March 31, 2019)

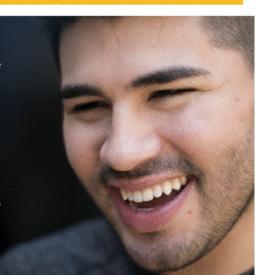
Galafold is the cornerstone of Amicus' success. It is an orally delivered small molecule precision medicine with a unique mechanism of action for Fabry patients with amenable variants that replaces the need for intravenously delivered enzyme replacement therapy



# Galafold Global Launch Momentum (as of March 31, 2019)

#### countries. It is the one of the most successful new Lysosomal Disorder product launch ever.

- Global: 150+ new patient adds in 1Q19 with continued >90% compliance and adherence. Now estimate ~18% global market share of treated amenable patients\*
- U.S: 200+ prescription referral forms (PRFs) from 90+ prescribers (as of April 30); shortening time from PRF to shipment
- International: strong growth from both switch and previously untreated patients
- Japan: Q1 patients ahead of forecast with expanded commercial team
- Demographics: balanced mix of males and females, classic and late-onset patients across all markets

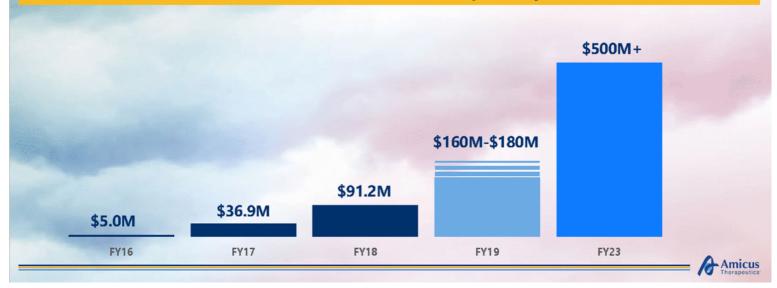




<sup>\*</sup>Market share based on reported 2018 global Fabry sales and assumes a 35% amenability rate for Galafold.

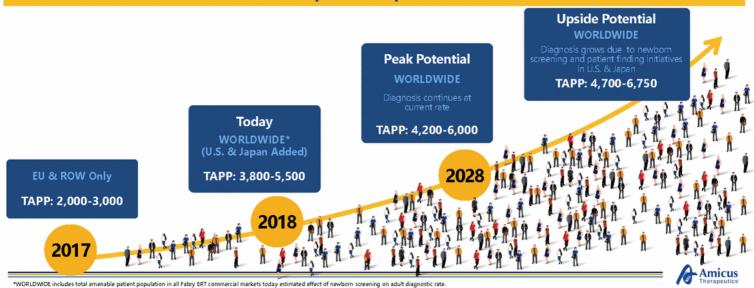
# Galafold Success and FY19 Galafold Revenue Guidance

Galafold sales in 2019 represent the first full year of launch in the major geographies in the world and will be between \$160-\$180M, with more than 1,000 Fabry patients on therapy by the end of 2019. Galafold sales of \$500M+ are expected by 2023.



# Total Amenable Patient Population ("TAPP")

Fabry disease is increasingly believed to be one of the most prevalent human genetic diseases. The total amenable patient population ("TAPP") has the potential to make Galafold a \$1B+ annual product at peak.





# **AT-GAA Novel ERT for Pompe Disease**

"We encourage and embrace constant innovation"
- Amicus Belief Statement

# Pompe Disease Overview



5,000 – 10,000+ patients diagnosed WW<sup>1</sup>; newborn screening suggests underdiagnosis

Respiratory and cardiac failure are leading causes of morbidity and mortality

Age of onset ranges from infancy to adulthood

Deficiency of GAA leading to glycogen accumulation and cellular dysfunction

Symptoms include muscle weakness, respiratory failure, and cardiomyopathy

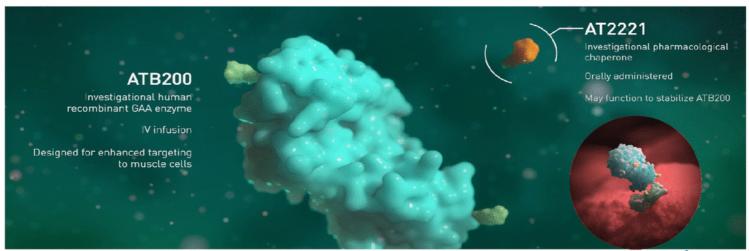
~\$900M+ Global Pompe ERT sales in FY18<sup>2</sup>



AT-GAA for Pompe Disease

# AT-GAA: Foundation in Protein Engineering

Amicus scientists specializing in protein engineering and glycobiology created a uniquely glycosylated and highly phosphorylated ERT (AT-GAA) that significantly enhances targeting to key muscles affected in patients.





# Pompe Patient Experience in Phase 1/2 Clinical Study (ATB200-02)

Phase 1/2 results showed strong and durable effects in patients out to two years, leading to dramatic improvements in muscle strength and function, as well as significant improvements in key biomarkers of disease

#### 6-Minute Walk Test (m)

Cohort	Baseline (n=10)	Change at Month 24 <sup>a,b</sup> (n=8) Mean (SD)
Cohort 1	397.2	+53.6
ERT-Switch Ambulatory	(96.8)	(36.4)
Cohort	Baseline (n=5)	Change at Month 21 (n=5) Mean (SD)
Cohort 3	399.5	+54.8
ERT-Naïve	(83.5)	(34.7)

#### **FVC (% Predicted)**

Cohort	Baseline (n=9*)	Change at Month 24 <sup>a,b,c</sup> (n=7) Mean (SD)
Cohort 1	52.6	-0.6
ERT-Switch Ambulatory*	(14.7)	(2.8)
Cohort	Baseline (n=5)	Change at Month 21 (n=5) Mean (SD)
Cohort 3	53.4	+6.1
	33.4	,0.1

<sup>8</sup>One patient in Cohort 1 discontinued from study (withdrew consent) before Month 24. <sup>8</sup>At the time of this interim analysis, 1 patient in Cohort 1 had not reached Month 24. <sup>8</sup>Baseline FVC missing for 1 patient in Cohort 1



# PROPEL (ATB200-03) Study Design



AT-GAA is the first ever second-generation product for <u>any</u> Lysosomal Disorder to earn Breakthrough Therapy Designation ("BTD") from the FDA; Phase 3 enrollment is expected to complete in 2019 with data in 1H 2021

Long-Term Extension

(Open-Label)

AT-GAA

Bi-weekly

52-Week Primary Treatment Period (Double-Blind)

2:1 Randomization

Participants with Late-Onset Pompe Disease

~100 Patients 90 WW Clinical Sites

> ERT-Switch ERT-Naïve

AT-GAA Bi-Weekly

Standard of Care Bi-Weekly

Primary Endpoint: 6-Minute Walk Test at Week 52; Multiple Secondary Endpoints

Well-Powered for Superiority

**BTD Criteria** 

 Preliminary clinical evidence indicates drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints

AT-GAA BTD Based on Ph 1/2 Clinical Efficacy

#### **BTD Features**

- Intensive guidance on an efficient drug development program
- Organizational commitment involving senior managers
- · All Fast Track program features



# Pompe Biologics Manufacturing

Amicus and partner WuXi Biologics have successfully produced AT-GAA at 1,000L commercial scale, demonstrating unique capabilities in Amicus biologics process science, manufacturing and quality control



AT-GAA for Pompe Disease

# **AT-GAA Treatment Opportunity**

Potential to become <u>the</u> standard of care for all persons living with Pompe with \$1B+ in annual sales at peak

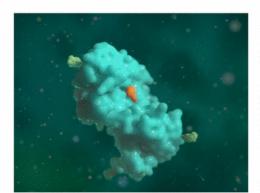
- Phase 1/2 study data on AT-GAA demonstrated profound improvement in functional outcomes for Pompe patients
- Enrollment of pivotal Phase 3 PROPEL Trial on track to complete enrollment of at least 100 patients by year end
- Ongoing studies intended to support approval in all patients
- AT-GAA plus Pompe gene therapy program can potentially build the largest and most valuable Pompe franchise in the industry



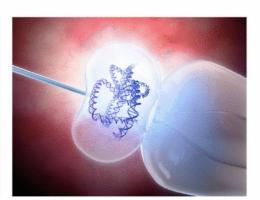


# AT-GAA Treatment Opportunity

Any Pompe Gene Therapy will have to address <u>both</u> muscular and CNS aspects of disease and compare favorably on clinical endpoints to the then approved standard of care. AT-GAA has the potential to be standard of care well into the 2030s











# **Gene Therapy Pipeline**

"We have a duty to obsolete our own technologies"
- Amicus Belief Statement

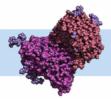
# A Natural Evolution: Chaperones to Optimized ERT to Gene Therapy

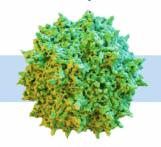
Amicus' Shift Towards Gene Therapy is Built Upon Years of Experience in Developing Genetic Medicines Designed to Deliver Deficient Proteins to Target Cells and Organelles

Pharmacological Chaperones

Next-Generation ERTs Gene Therapies







Stabilize "naturally produced" enzymes

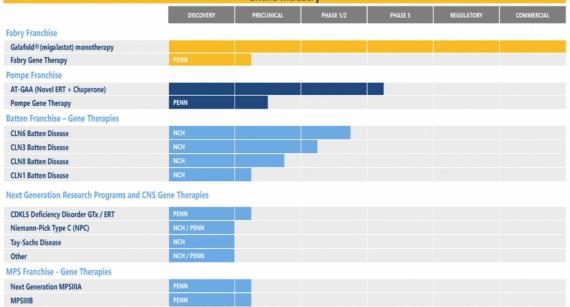
Stabilize and target "externally produced" enzymes

Stabilize and target "internally produced" enzymes



# Expansion in Gene Therapy

In less than a year, Amicus has assembled the largest portfolio of gene therapy programs for rare diseases in the entire industry



# Validated Gene Therapy Platform

The core science for these neurological Lysosomal programs leverage the AAV technologies and platforms utilized in the neuromuscular space at NCH and have robust pre-clinical proof of concept for their application in Batten disease

# Clinically validated AAV gene therapy approach by Dr. Brian Kaspar and team at NCH and Sanford

- Nationwide Children's Hospital Center for Gene Therapy (NCH)
- Intrathecal delivery with robust expression throughout CNS

## Preclinical safety and efficacy studies replicated across multiple diseases at NCH

- SMA, ALS, CLN6, CLN3, CLN8

# Amicus applying platform to Multiple Types of Batten disease and other Neurologic LSDs

- Two clinical programs in CLN6 and CLN3 Batten disease show initial safety in 15 patients; promising results in first two patients in CLN6
- Active preclinical programs in CLN8 and CLN1 Batten disease with other neurologic LSDs in earlier preclinical development









Foust, Kaspar et al, 2009



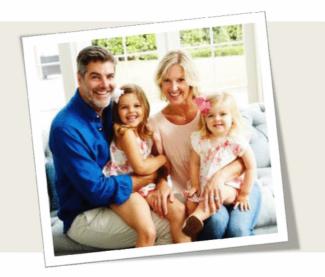
Source: Likhite 2018, 16th International Conference on Neuronal Ceroid Lipofuscinoses, IND-enabling Preclinical Studies for Batten Disease Gene Therapy

### **Batten Disease Overview**

#### Batten disease is a devastating early childhood disease that is 100% fatal in children

#### **Disease Overview**

- A group of disorders known as neuronal ceroid lipofuscinoses (NCLs), collectively referred to as Batten disease
- Mutation in one of 13 different CLN genes leads to lysosomal dysfunction
- Signs and symptoms include:
  - Loss of speech, ambulation, vision and cognition





# AAV-CLN6 Batten Disease Gene Therapy: Phase 1/2 Study

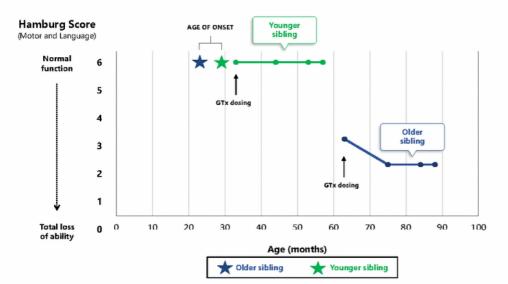
The Amicus CLN6 Batten disease program is one of the most advanced AAV Gene Therapy programs in development today

- 1st Patient Dosed > 3 Years Ago
- > 12 Children Treated
- Favorable Safety Profile (exposure from ~7 to 41 months)



# Efficacy Data: Matched Sibling Case Report

Encouraging Interim Efficacy Data in First Two Patients Treated with Gene Therapy with Two Years of Follow-up



- Two siblings (same genotype) treated with gene therapy at ages 2.8 and 5.3 years, respectively
- Two years post treatment, Hamburg motor and language scores indicate no disease progression in the younger sibling
- Disease progression in older sibling has shown evidence of stabilization to date



# Upcoming CLN6 Batten Disease Interim Clinical Data

# Important data in 7 patients at ~2 years following gene therapy administration will be reported in 3Q19

- 1 Safety
- 2 Hamburg Motor + Language (study patients)
- Hamburg Motor + Language (natural history)
- Matched Sibling Pairs (treated vs. natural history\*; treated vs. treated\*\*)

Key question for next CLN6 data set:

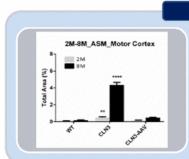
"As compared with natural history and sibling pair data, has the fundamental course of disease been profoundly changed, especially in younger children before severe neurodegeneration has occurred?"

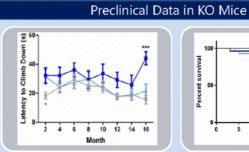
\*study participants with untreated CLN6 siblings as natural history controls \*\*siblings are clinical study participants who received CLN6 gene therapy

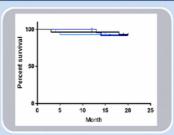


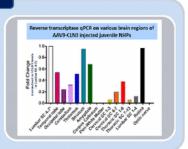
# CLN3 Batten Disease: Preclinical and Clinical Summary

dosing in three children in Cohort 1 (low dose) and dosing for up to an additional three patients in Cohort 2 (high dose) will be completed in 2H 2019









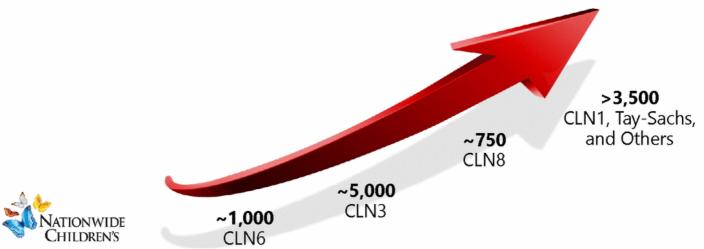
Reduction of storage material in mouse model Improvement of motor function and cognitive behavior in mouse mode Comparable survival in mouse model

Widespread gene expression in brain of NHPs



# Addressable Patient Populations in Neurologic LDs\*

The portfolio of NCH/Celenex programs has the potential to reach \$1B+ in peak annual recurring revenue



\*Estimated addressable U.S., EU, Japan, and other major, reimbursable markets based on published incidence and prevalence



# Amicus Establishes Gene Therapy Portfolio

It centered on programs in Pompe, Fabry and CDKL5 Deficiency Disorder

Increased Protein Expression

Novel untranslated sequences to avoid inhibition of initiation and drive efficient protein synthesis



Improved Protein
Targeting &
Stabilization

Targeting moieties

Protein design



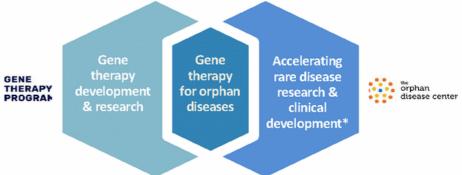




#### Penn Collaboration Overview

Combines Amicus Expertise in Protein Engineering with Penn's AAV Vector Technology, Manufacturing and Immunology Capabilities to Improve Safety and Efficacy and Speed Development

- Dr. James Wilson and Gene Therapy Program (GTP) at Penn: Renowned center of excellence
  - >20 years of gene therapy experience
  - Proven platform with numerous clinical programs across multiple disease indications
  - Leader in next generation AAV technologies



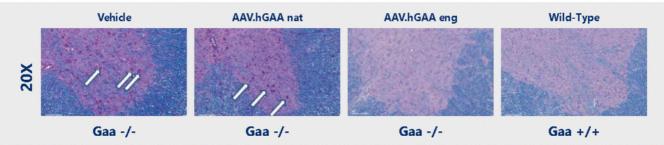




# Preclinical Pompe Gene Therapy Results

#### Pompe disease yielded striking results presented at the ASGC1 meeting in April 2019

#### Glycogen Luxol/PAS - Spinal Cord



#### **Key findings:**

- Improved cellular uptake and glycogen reduction observed with engineered AAV-hGAA
- Robust glycogen reduction in CNS observed only with engineered AAV-hGAA



# Amicus Gene Therapy Expansion: Key Takeaways







Worldwide Rights to Penn's Next Generation Gene Therapy Technologies for the Majority of Lysosomal Disorders

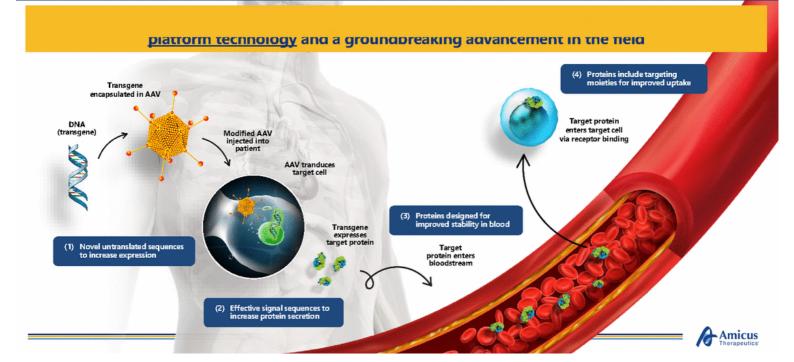
Current Collaboration Extended to Include Three New Indications: Niemann-Pick Type C, Next Generation MPS IIIA, and MPS IIIB

Partnership Encompasses 12 Additional Rare Diseases, including Rett Syndrome, Angelman Syndrome, Myotonic Dystrophy and Select Other Muscular Dystrophies

Amicus to Invest \$10M / Year for 5 Years for Research to Improve Safety, Efficacy and Manufacturability of Next Generation Vectors with Option to Extend



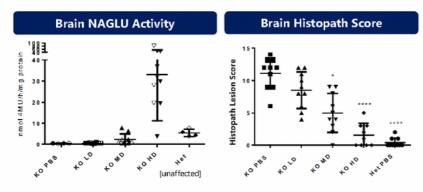
# Amicus Approach: Engineered Transgenes for Optimal Cross-Correction



# MPS IIIB Program Summary

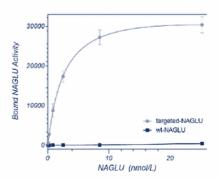
The Amicus protein engineering technologies have now been applied to Penn's MPS IIIB program to improve cellular uptake and cross-correction of affected cells

#### AAV-NAGLU Candidate (Unmodified WT): KO Mouse\*



- AAV-NAGLU candidate (unmodified); 3 single ICV doses (LD, MD, HD)
- 4-mo old KO mice (n=10); Sacrificed 90-days post injection

#### NAGLU Binding to Intended Receptor\*\*



Potential to engineer NAGLU transgene for improved receptor binding and cellular uptake



## Preclinical Advancements in GTx to come in 2H 2019

Multiple preclinical pipeline advancements in Gene Therapy lie ahead in 2H 2019

# Gene Therapy Program Milestones Positive initial preclinical data for Pompe gene therapy Selection of CMO partners for initial manufacturing supply Complete enrollment in low-dose cohort in CLN3 Batten disease Phase 1/2 study

- ☐ Complete enrollment in high-dose cohort in CLN3 Batten disease Phase 1/2 study ☐ Additional 2-year data from CLN6 Batten disease Phase 1/2 study
- ☐ Selection of Amicus late process development and manufacturing facilities
- ☐ Additional preclinical data including next-generation gene therapies for Fabry and Pompe
- ☐ Selection of Pompe AAV gene therapy IND candidate



## Amicus Global Research and Gene Therapy Center of Excellence in Philadelphia

The 75,000 sq. ft. Amicus Global Research & Gene Therapy Center of Excellence in Philadelphia will be fully operational in 2H 2019 and is adjacent to Penn's campus







Artist renderings

# Manufacturing and Process Science

Manufacturing and process science capabilities and capacity in Gene Therapy will be crucial for Amicus success. Our experience in complex biologics manufacturing and quality control provide a great competitive advantage here.











# **CMO Partnerships**

#### Manufacturing Partnerships Secured with Industry Leading CMOs with Tech Transfer Process Underway



Technologies and capabilities related to Penn collaboration are being transferred to and developed at Catalent

PARAGON

Initial focus on Amicus Pompe AAV gene therapy program



brammer 🚳

Technologies and capabilities for Batten disease programs are being transferred to and developed at Thermo Fisher's viral vector services business



CLN6 Batten disease gene therapy to undergo a similar GMP process for clinical and commercial-scale manufacturing and supply



# Plasmid Supply Relationships

tor research and GMP quality plasmids tor all Amicus Gene Therapy programs.









# Amicus Manufacturing Center of Excellence

manufacturing complex will become one of the largest, most nextbe and most technically davanced dene merup;





# Financial Summary and Guidance

# Amicus financial strength provides a great foundation for the future, with ~\$580M cash on hand

FINANCIAL POSITION	
Cash (Proforma)	~\$580M
Cash Runway <sup>1</sup>	Into 2021
Debt <sup>2</sup>	\$152.8M
CAPITALIZATION	
Shares Outstanding <sup>3</sup>	~255M
FINANCIAL GUIDANCE	

. ..., ....

FY19 Galafold Revenue Guidance

\$160M-\$180M

<sup>1</sup>Based on existing operating plan including proceeds from June 2019 equity offering to invest in manufacturing <sup>2</sup>Includes \$3.7 million of convertible debt and \$150 million of straight debt <sup>3</sup>Includes shares from June 2019 equity offering



# Our Passion for Making a Difference Unites Us

Amicus is now at a major inflection point and positioned to create significant shareholder value ahead while advancing our mission for patients.

