

December 2024

Investor Presentation

We have an audacious mission to develop novel therapies for diseases with high unmet needs, with a focus on serious and fatal neurodegenerative diseases and endocrine conditions.







Disclaimer

Statements contained in this presentation regarding matters that are not historical facts are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Such statements include, but are not limited to, the Company’s plans to explore the use of avexitide as a treatment for post-bariatric hypoglycemia (PBH) and congenital hyperinsulinism, AMX0035 for neurodegenerative diseases, including progressive supranuclear palsy (PSP) and Wolfram syndrome (WS), AMX0114 for ALS; statements regarding the timing of clinical trials for PBH, PSP, WS and/or ALS; and expectations regarding our longer-term strategy. Any forward-looking statements in this presentation are based on management’s current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. Risks that contribute to the uncertain nature of the forward-looking statements include: the success, cost, and timing of Amylyx’ program development activities, including ongoing and planned clinical trials, Amylyx’ ability to execute on its development and regulatory strategy, regulatory developments, Amylyx’ cash runway and ability to fund operations, as well as the risks and uncertainties set forth in Amylyx’ United States Securities and Exchange Commission (SEC) filings, including Amylyx’ Annual Report on Form 10-K for the year ended December 31, 2023, and subsequent filings with the SEC. All forward-looking statements contained in this presentation speak only as of the date on which they were made. Amylyx undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

A Growing Pipeline of Therapies to Serve Communities with High Unmet Needs

Led by an experienced team with proven track record of commercialization in rare diseases

			PRECLINICAL	IND	PHASE 1	PHASE 2	PHASE 3	COMMERCIAL
AVEXITIDE GLP-1 receptor antagonist FDA Breakthrough Therapy and Orphan Drug Designations	Post-Bariatric Hypoglycemia (PBH) <ul style="list-style-type: none"> Plan to initiate Phase 3 LUCIDITY trial in Q1 2025, with data readout anticipated in 2026 FDA-agreed upon primary outcome of reduction in hypoglycemia events 					LUCIDITY PHASE 3 CLINICAL TRIAL		
	Congenital Hyperinsulinism (HI) <ul style="list-style-type: none"> Engaging physician and community experts around next steps for clinical development 							
AMX0035 Sodium phenylbutyrate and taurursodiol (also known as ursodoxicoltaurine)	Wolfram Syndrome <ul style="list-style-type: none"> Positive Phase 2 HELIOS topline data showed improvement or stabilization across all disease measures at Week 24 (n = 11) and sustained improvement at later timepoints 				HELIOS PHASE 2 CLINICAL TRIAL			
	Progressive Supranuclear Palsy (PSP) <ul style="list-style-type: none"> Phase 2b/3 ORION trial in PSP underway – data from an interim analysis anticipated in mid-2025 				ORION PHASE 2b/3 CLINICAL TRIAL			
AMX0114 ASO targeting calpain-2, a protein involved in axonal degeneration	Amyotrophic Lateral Sclerosis (ALS) <ul style="list-style-type: none"> Preclinical data showed improved neuronal survival and reductions in extracellular neurofilament Planned initiation of LUMINA by end of 2024 or in early 2025 in Canada and early cohort data expected in 2025 				LUMINA PHASE 1 CLINICAL TRIAL			

Committed to Developing Treatments for Diseases with High Unmet Needs

Focus on diseases with well-defined mechanistic rationale, clear clinical outcomes and biomarkers, and rigorous preclinical data

AVEXITIDE

First-in-class, GLP-1 receptor antagonist with Breakthrough Therapy and Orphan Drug designations

- Designed to bind to the GLP-1 receptor and **inhibit the effect of GLP-1**, decreasing insulin secretion and stabilizing blood glucose levels.
- **Planned initiation of the Phase 3 trial in Q1 2025** to evaluate the efficacy and safety of avexitide in participants with PBH
- FDA guidance and interactions support Phase 3 primary endpoint as **approvable following positive trial results**¹

AMX0035

Oral, fixed-dose combination of two small molecules, sodium PB and taurursodiol

- Designed to **mitigate neurodegeneration by targeting ER stress and mitochondrial dysfunction**, two cellular processes central to neuronal cell death and neurodegeneration
- AMX0035 has **demonstrated clear biological activity** in preclinical and clinical studies
- **Positive Phase 2 HELIOS topline data** showed improvement in pancreatic function following 24 weeks of treatment
- Phase 2b/3 ORION trial in PSP underway

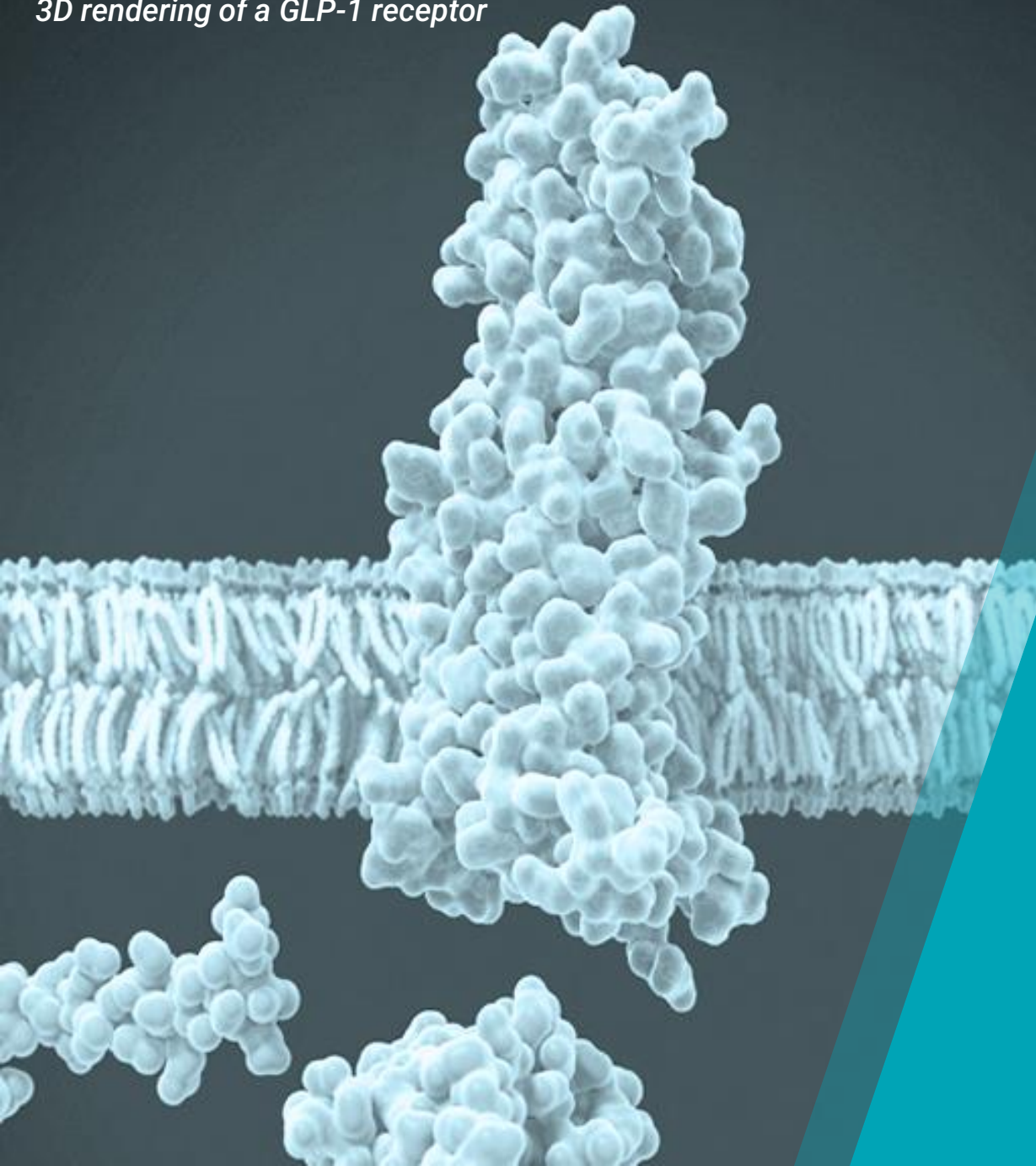
AMX0114

Antisense oligonucleotide designed to target calpain-2, a protein involved in axonal degeneration and neurofilament biology

- Preclinical data demonstrated treatment with AMX0114 showed **rescue of cellular degeneration and neurofilament biology** in multiple cellular experiments
- Phase 1 LUMINA clinical trial, a multicenter, randomized, placebo-controlled, multiple ascending dose trial, will **evaluate the safety and biological activity of AMX0114** in approximately 48 people living with ALS
- Planned **initiation of LUMINA** by the end of 2024 or in the beginning of 2025 in Canada

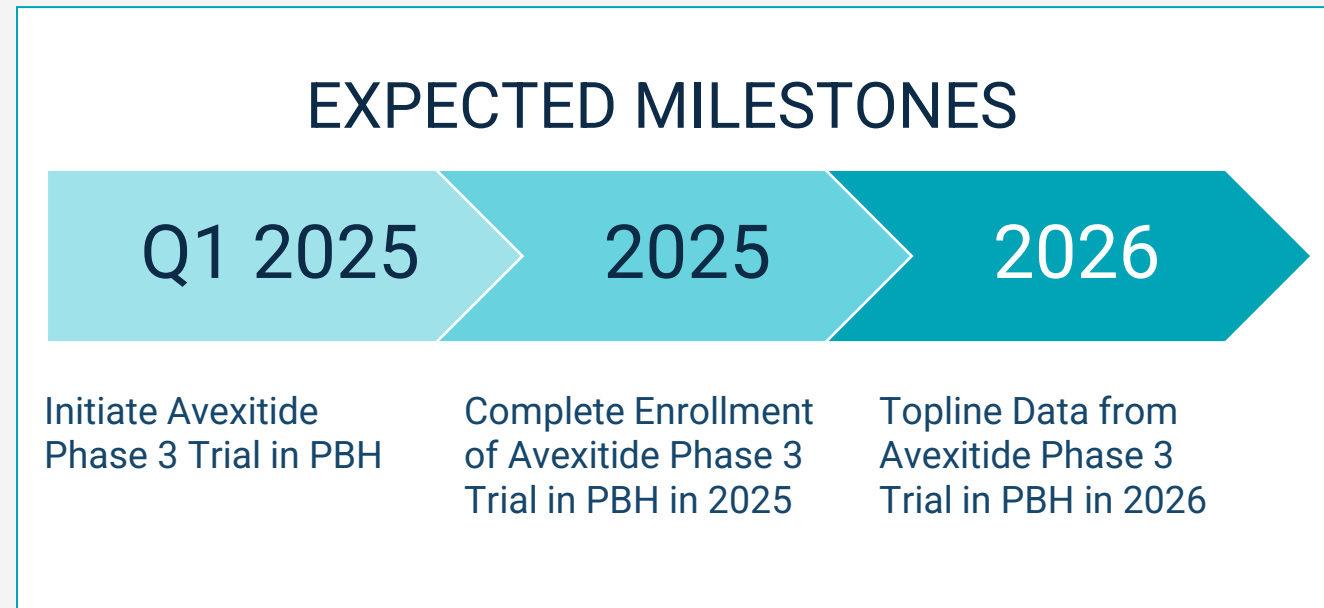
Avexitide

- First-in-class, Phase 3-ready GLP-1 Receptor Antagonist with FDA Breakthrough Therapy Designation



Avexitide: Investigational, First-in-Class GLP-1 Receptor Antagonist

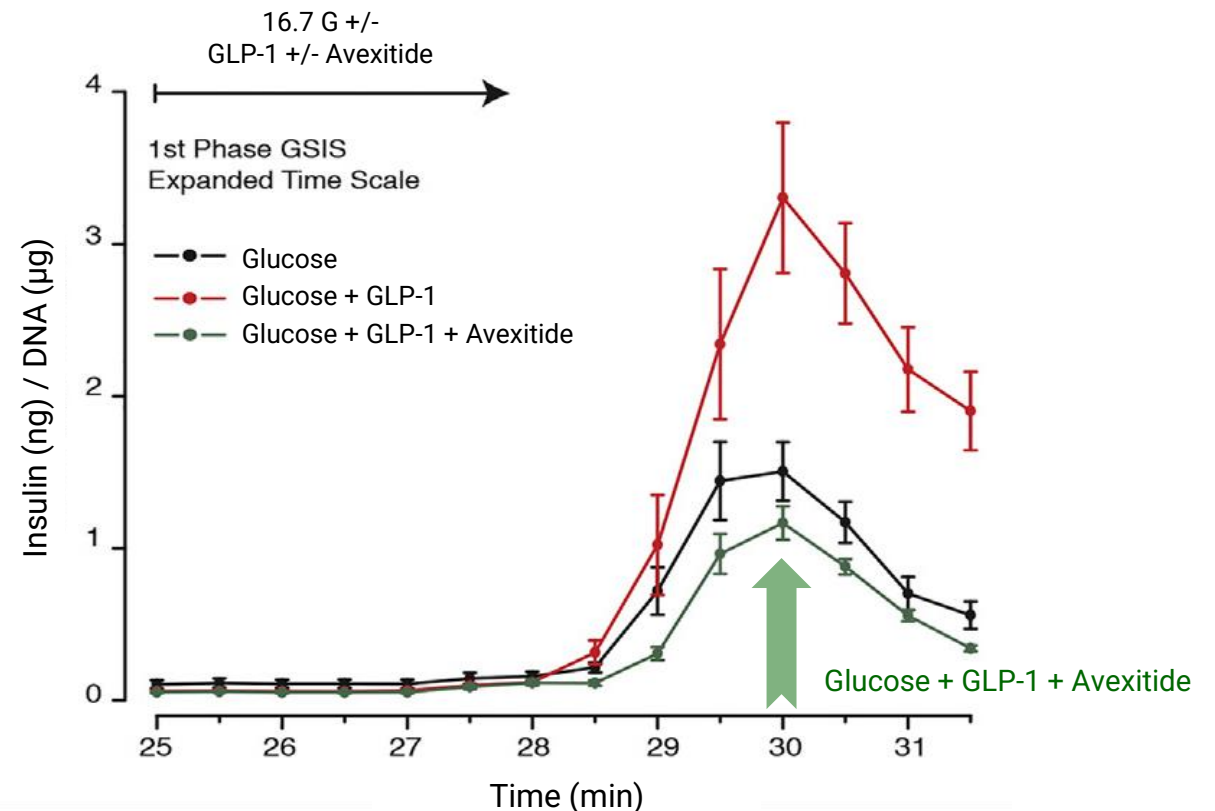
- Avexitide targets known incretin biology
- FDA Breakthrough Therapy Designation and Orphan Drug Designation in hyperinsulinemic hypoglycemia
- Phase 3 LUCIDITY trial is designed to evaluate FDA-agreed upon primary outcome of reduction in hypoglycemia events in PBH
- Highly statistically significant clinical results, including in hypoglycemia outcome planned to be used in Phase 3
 - > Results replicated across clinical studies
- PBH is often a life-altering, orphan condition; ~160,000 prevalent patients
- Strong IP position with patent rights through 2037 and potential for patent term extension
- Leadership team tenured in rare disease; commercial capabilities demonstrated recently with one of the top performing orphan disease drug launches



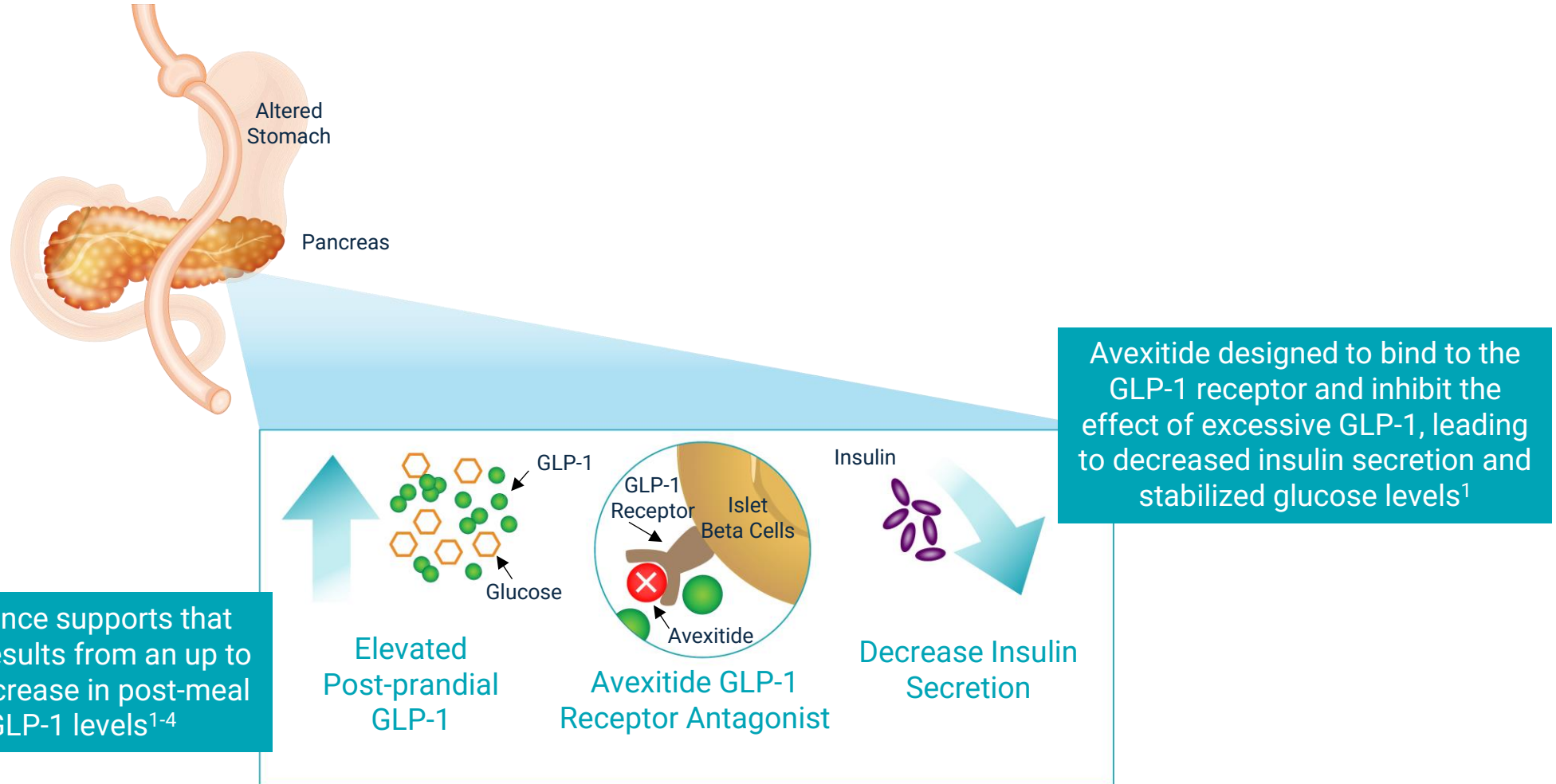
Inhibiting Effects of Excessive GLP-1 in PBH to Mitigate Hypoglycemia

- The GLP-1 receptor is a key regulator of glucose insulin response
- Endogenous GLP-1 secreted in response to a meal to cause insulin secretion and glucose uptake
- Avexitide inhibits endogenous GLP-1 from binding to the GLP-1 receptor, lowering insulin secretion and raising blood glucose levels

GLP-1 receptor antagonism blocks GLP-1 and **decreases insulin response** to glucose in rat pancreatic islet cells¹



Post-Bariatric Hypoglycemia (PBH) is Believed to be Caused by Excessive GLP-1 Response that Leads to Hyperinsulinemic Hypoglycemia Post-Meal



PBH Can Be Life-Threatening and There Are No Approved Treatment Options

Hypoglycemia from PBH is Often Dangerous and Life-Altering

- General fatigue, confusion
- Risk of falls, seizures, vehicle accidents
- Job and income loss

Living with PBH

“ I pass out multiple times a week. My lows are averaging 4-5 times a day.”

“ I lost my driver’s license since I am unaware of my lows.”

“ It affected my ability to work and take care of my family.”

~160,000 people
currently living with symptomatic PBH
in the U.S.¹⁻³

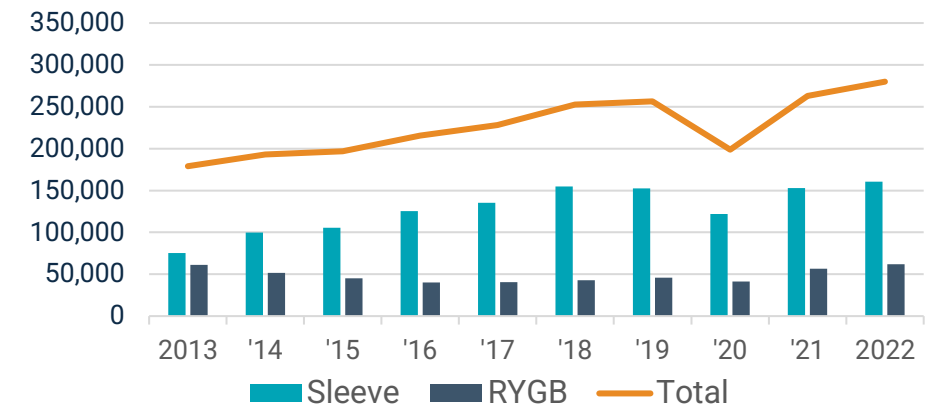
No approved treatment options

>200K
new procedures are
happening annually¹

PBH occurs on average
1-3 years post surgery

BETWEEN 2013-2022
Sleeve.....~1.3 million
RYGB.....~0.5 Million
Total.....~2.3 Million

Rate of Gastric Bypass by Type



~160,000 People Are Currently Living With Symptomatic PBH in the U.S.¹⁻³

PREVALENCE

~2 million people have previously undergone the two most common types* of bariatric surgery in the past decade in the U.S.¹

~20-40% of bariatric surgery patients develop hypoglycemia⁵⁻⁷

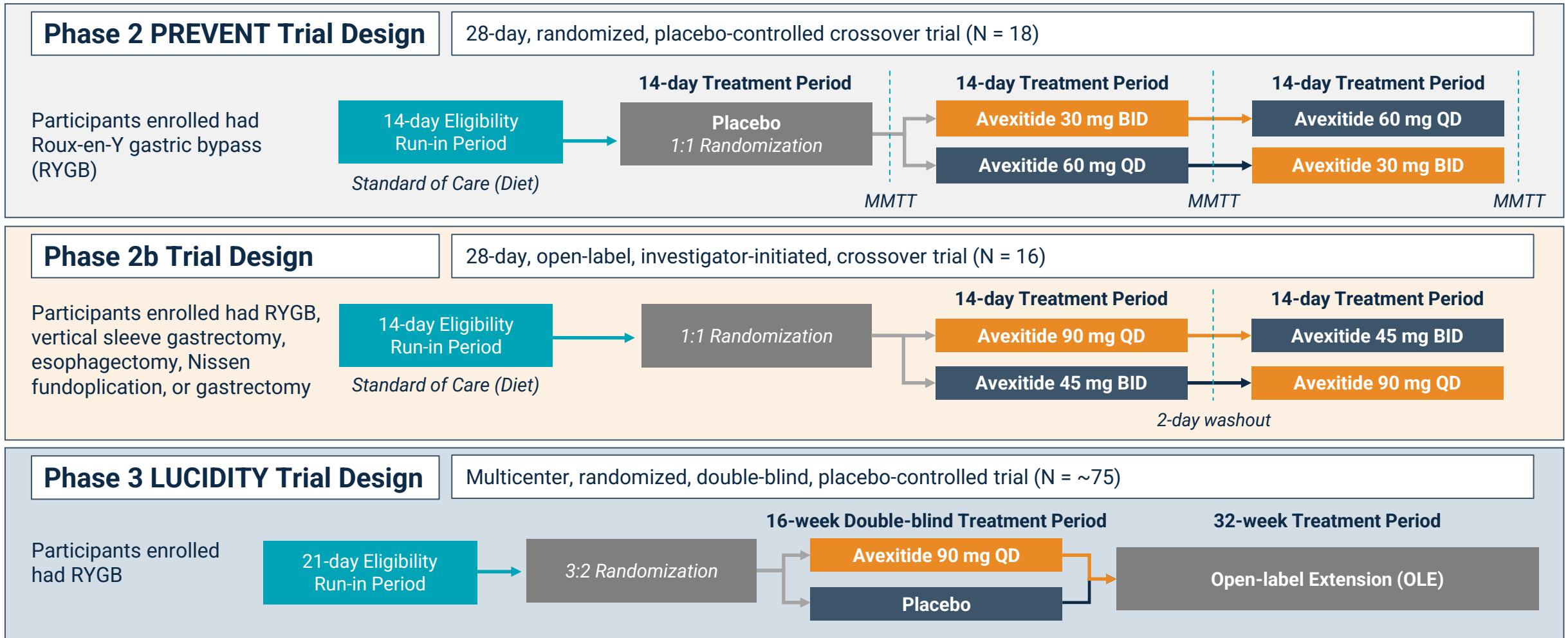
~160,000 people are currently living with symptomatic PBH in the U.S.¹⁻³

Characteristics of symptomatic PBH from literature:²⁻⁴

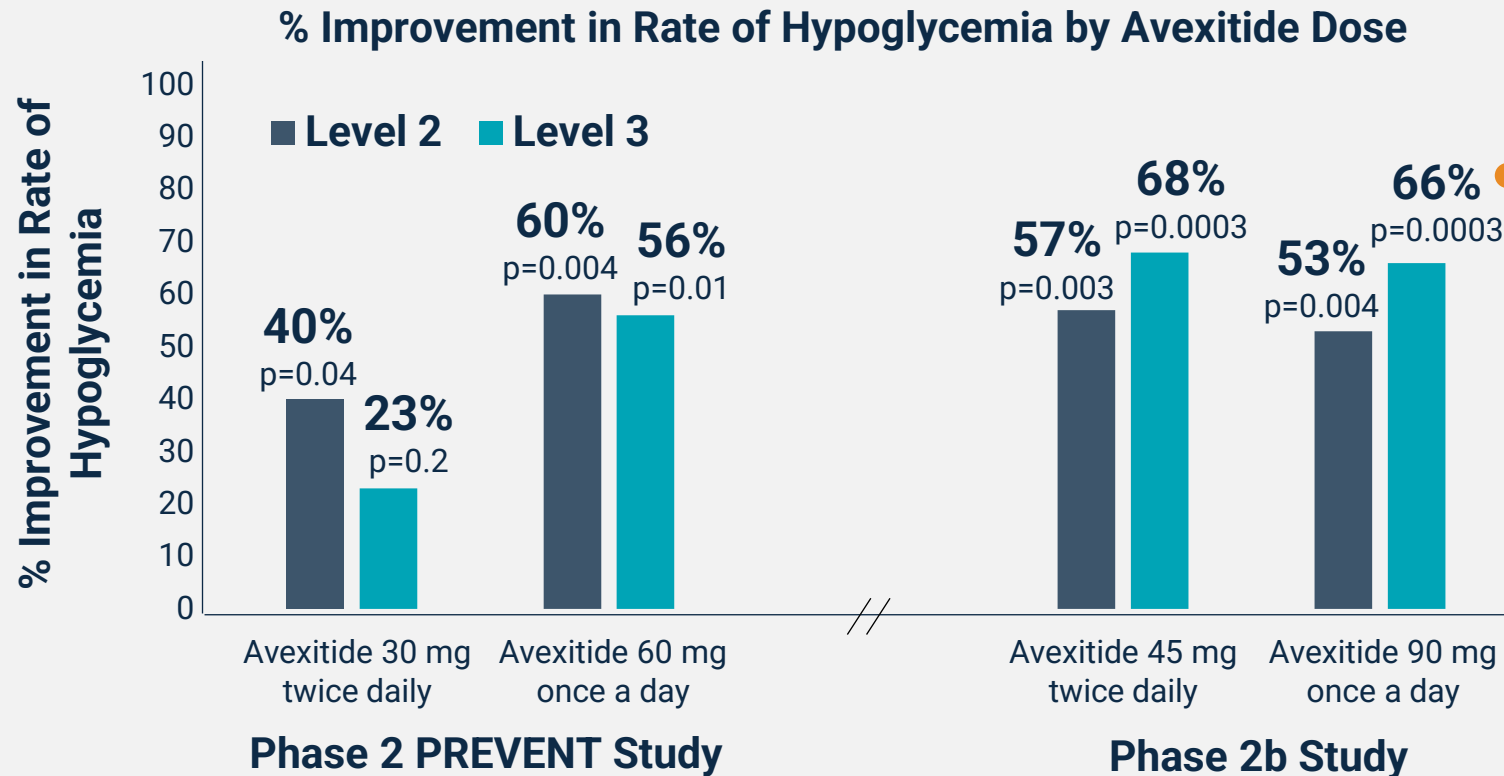
- Current guidelines suggest PBH defined as clinically significant hypoglycemia (experiencing a Level 2 event as defined as <54 mg/dL after bariatric surgery)
- Postprandial neuroglycopenic symptoms: difficulty speaking, blurred vision, confusion, drowsiness, impaired consciousness, coma, seizures, traffic accidents, requiring ER visit or hospitalization

*According to 2022 bariatric surgery estimates from the American Society for Metabolic and Bariatric Surgery (ASMBS), more than 75% of bariatric surgeries in the U.S. are either sleeve gastrectomy (57%) or Roux-en-Y gastric bypass (22%).¹

Phase 3 LUCIDITY Trial Designed to be Consistent with Phase 2 PREVENT and Phase 2b Trials Evaluating Avexitide for the Treatment of PBH



Avexitide Significantly Reduced Rates of Hypoglycemia in Two Phase 2 Clinical Trials in PBH

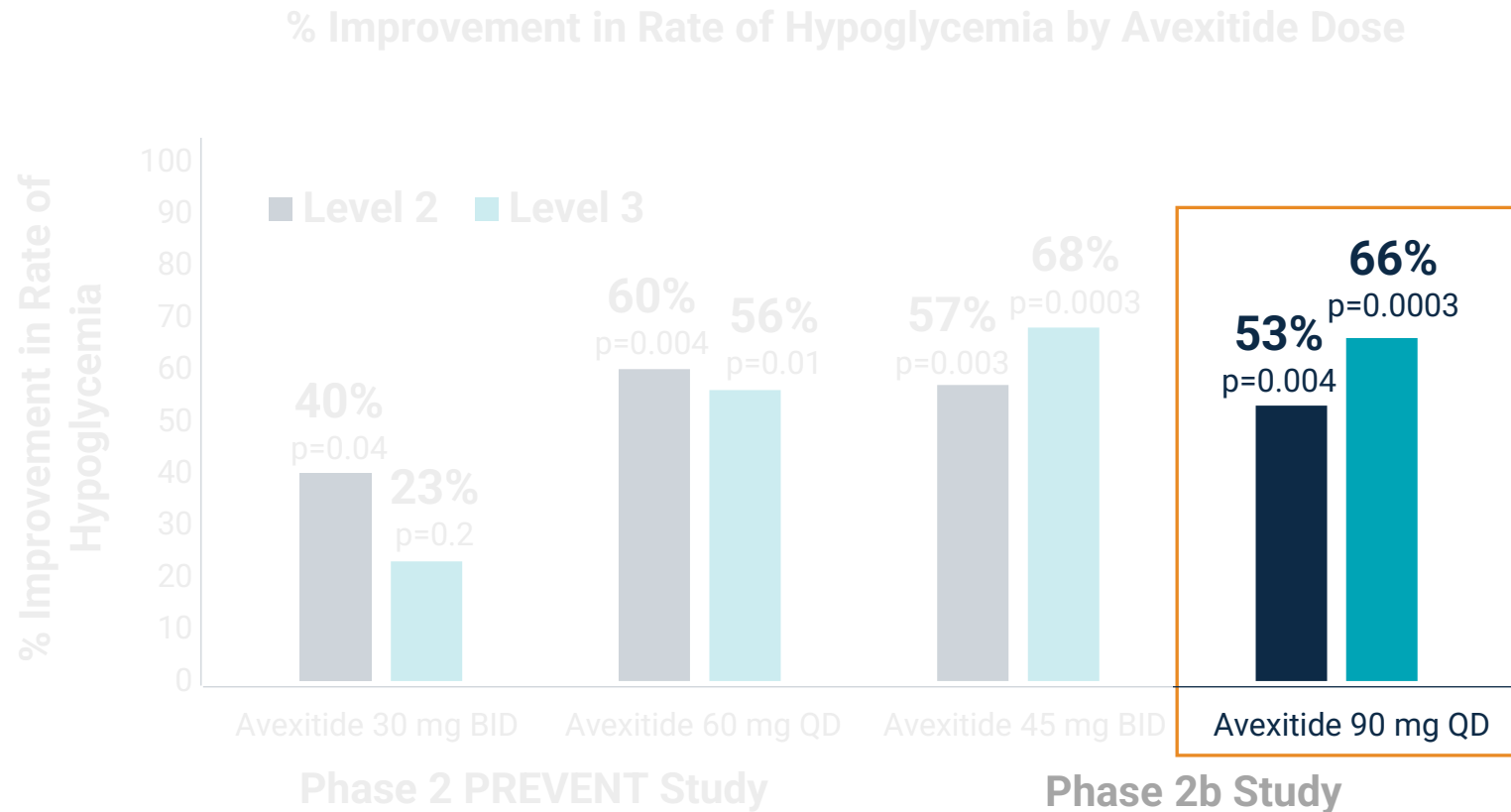


Avexitide cuts rates of hypoglycemia events by **>50%**

Treatment effect supported by consistent, dose-dependent effects across Phase 1, SAD, and MAD trials in PBH

Avexitide 90 mg QD demonstrated a half-life of ~3 hours, a Tmax ranging from 6-9 hours, and therapeutic exposure through 24 hours.

Phase 3 Endpoint Met in Phase 2 and Phase 2b



Phase 3 program will evaluate 90 mg QD in people living with PBH

FDA-agreed upon primary endpoint: Composite of Level 2 and Level 3 Hypoglycemia events

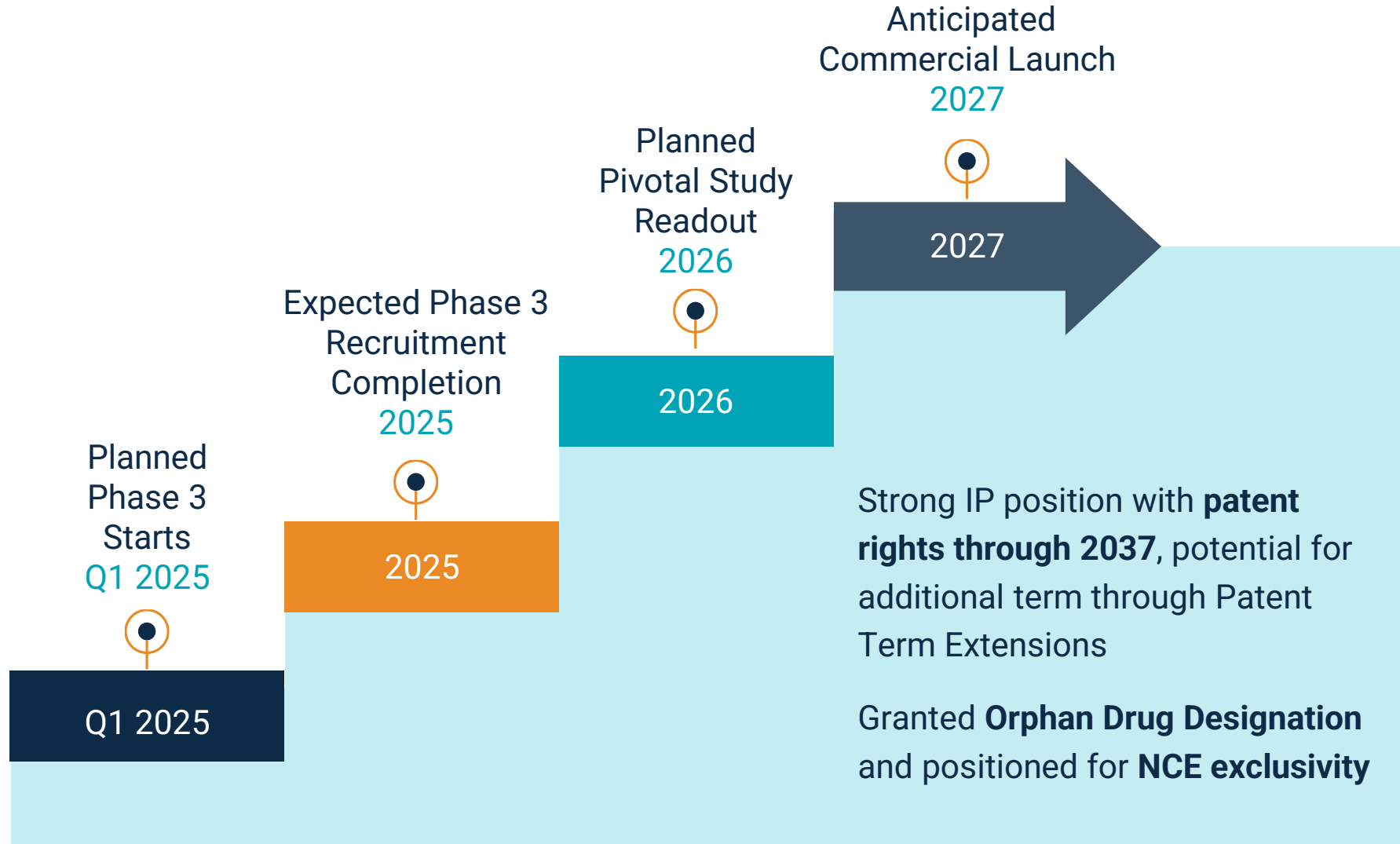
FDA
Breakthrough
Therapy
Designation

Avexitide was Generally Well-Tolerated with a Favorable Safety Profile Across Both Phase 2 Trials

Phase 2 PREVENT Study ¹	Phase 2b Study ²
AEs generally mild to moderate and transient	AEs generally mild to moderate and transient
No treatment-related serious AEs <ul style="list-style-type: none"> • 1 serious adverse event (presyncope during avexitide 60 mg once daily) occurred; reported as unrelated to study drug and self-limited 	No serious AEs
Most common AEs were injection site bruising, headache, and nausea	Most common AEs were diarrhea, headache, bloating, and injection site reaction/bruising
No participant withdrawals	No participant withdrawals

No clinically relevant increases were observed in fasting or peak postprandial plasma glucose levels (i.e., no hyperglycemia observed)

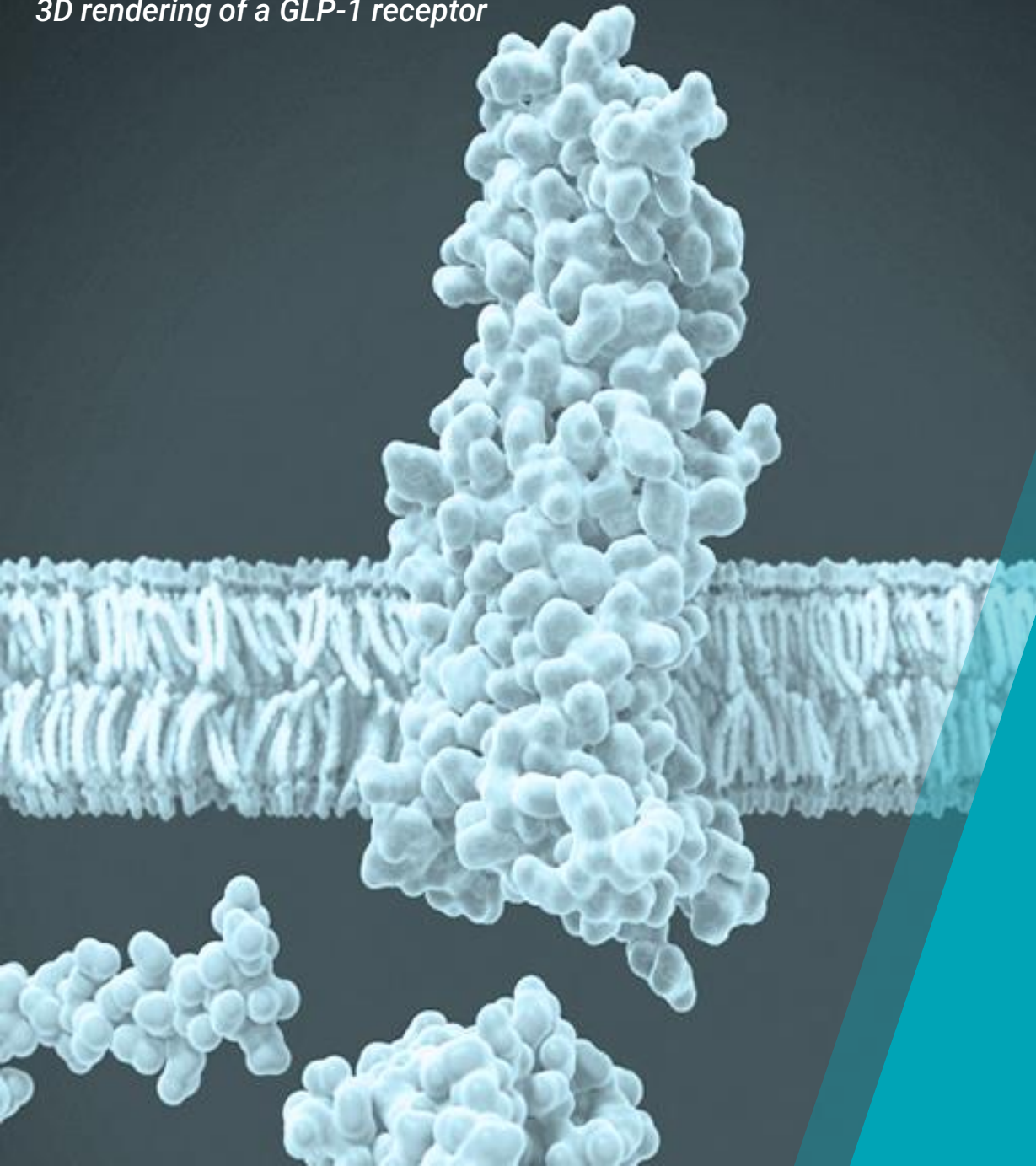
Phase 3 to Begin Q1 2025, Readout in 2026



3D rendering of a GLP-1 receptor



Additional Avexitide Clinical Data in PBH

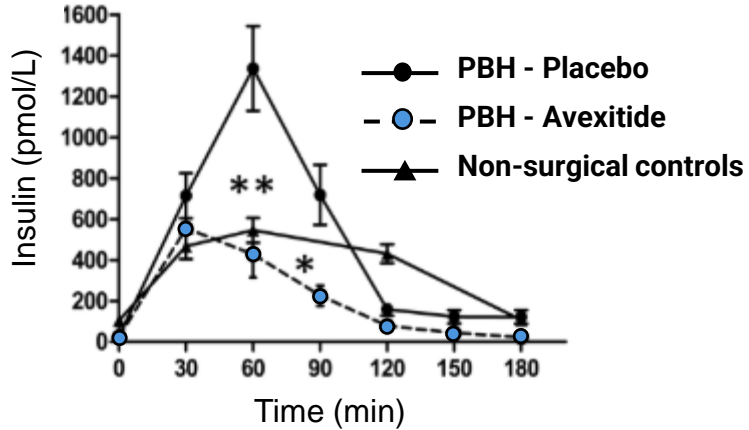


Avexitide Significantly Decreased Post-Meal Insulin Levels

PHASE 1, SAD, MAD

Phase 1, IV infusion¹

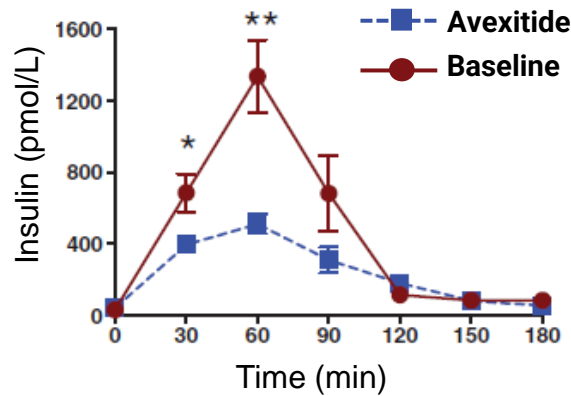
Single Dose, N=8, OGTT



OGTT = oral glucose tolerance test

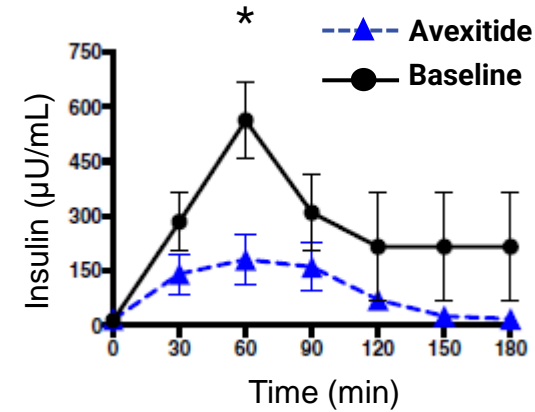
SAD, SC injection²

Single Dose, N=8, OGTT



MAD, SC injection³

BID Dosing, N=19, OGTT



Consistent and significant decrease in insulin levels across Phase 1, SAD, and MAD trials in people with PBH¹⁻³

*p≤0.05, **p≤0.01

PREVENT PHASE 2

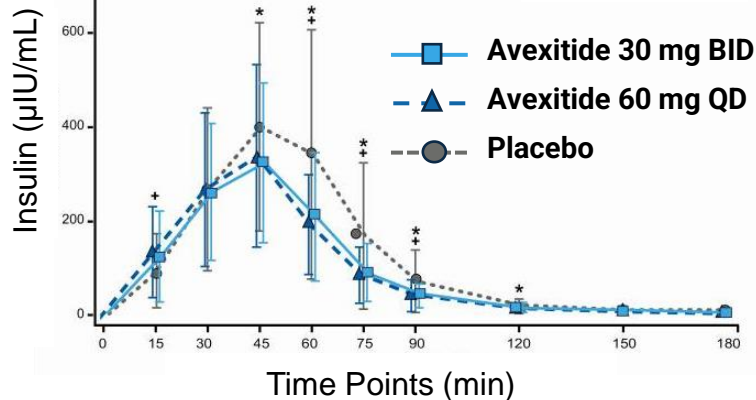


For PREVENT (vs placebo)
30 mg BID: *p<0.05
60 mg QD: +p<0.05

MMTT = mixed meal tolerance test

Phase 2, SC injection⁴

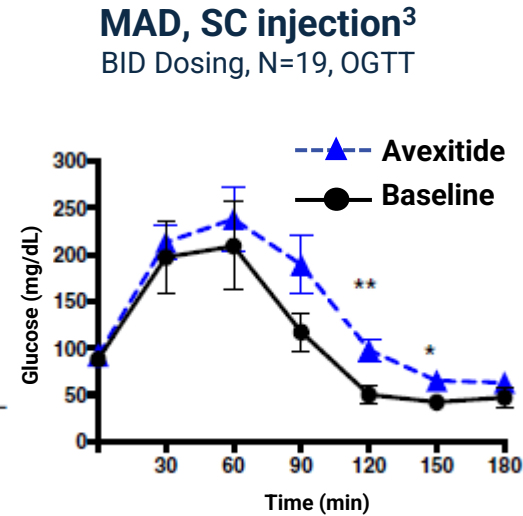
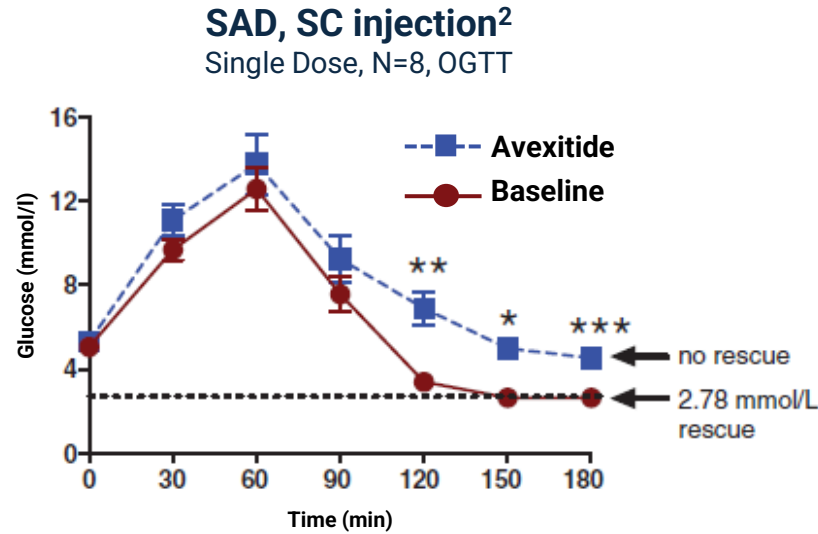
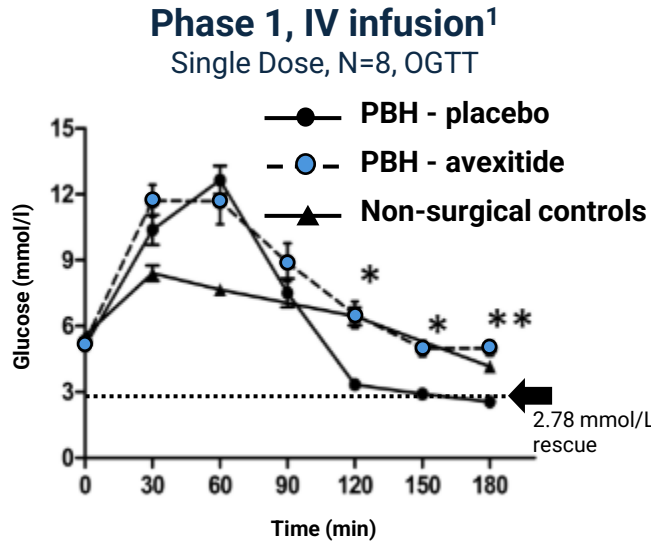
QD/BID Dosing, N=17, MMTT



Peak insulin was reduced by 23% (p=0.029) and 21% (p=0.042) following avexitide 30 mg BID and 60 mg QD, respectively, compared with placebo in the Phase 2 PREVENT trial in people with PBH⁴

Avexitide Significantly Stabilized Post-Meal Glucose Levels

PHASE 1, SAD, MAD

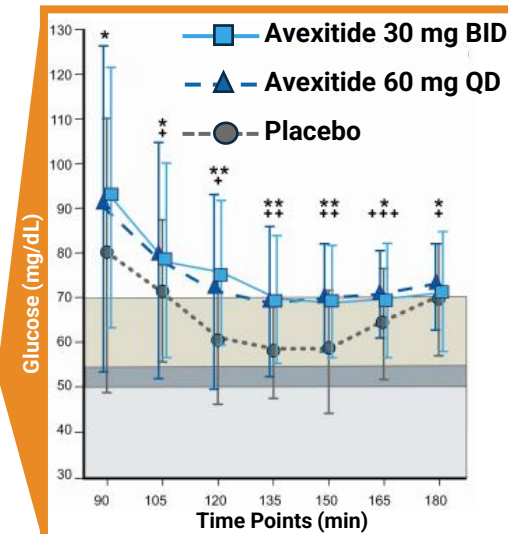
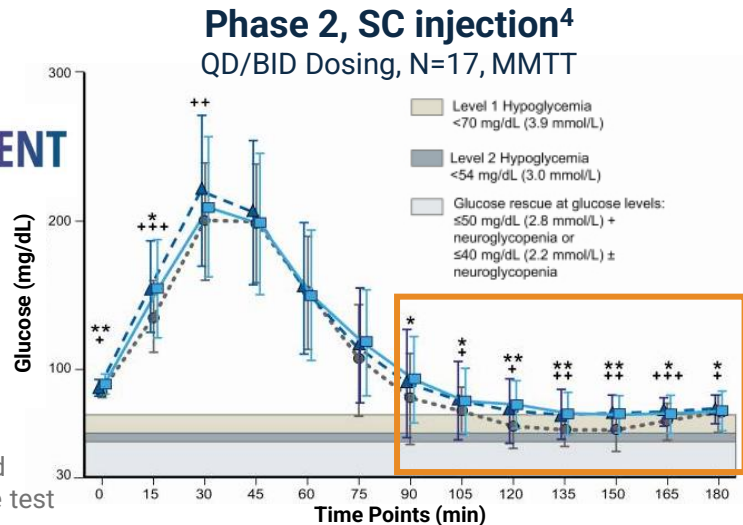


Consistent and significant stabilization in plasma glucose nadir across Phase 1, SAD, and MAD trials in people with PBH¹⁻³

OGTT = oral glucose tolerance test

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

PREVENT PHASE 2



Mean plasma glucose nadir (prespecified primary endpoint) increased by 21% ($p=0.001$) and 26% ($p=0.0002$) following avexitide 30 mg BID and 60 mg QD, respectively, compared with placebo in the Phase 2 PREVENT trial in people with PBH⁴

- Corresponded to 50% and 75% fewer participants requiring rescue, respectively

For PREVENT (vs placebo): 30 mg BID: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
60 mg QD: + $p < 0.05$, ++ $p < 0.01$, +++ $p < 0.001$

MMTT = mixed meal tolerance test



Patients Report Being Able to Feel Benefit in Structured Interviews

AVEXITIDE STUDY TEAM

Termeh Shamloo

Stanford University School of Medicine

Dalia Perelman, RD

Stanford University School of Medicine

Colleen Craig, MD

Eiger BioPharmaceuticals, Inc.

Tracey McLaughlin, MD, MS

Stanford University School of Medicine

STUDY PARTICIPANTS

"My husband noted I'm in a much better mood, and my nocturnal hypoglycemia was all gone."

"Experience was amazing..."

"I felt great and normal after a very long time - very happy."

"I'm back to practicing as a [professional] with full cognitive functioning."

"Feeling protected, mood is much better, the explosive behavior has been much better."

"Memory loss and recall improved."

"I feel like myself again after a very long time."



These are individual experiences and not necessarily representative of all clinical trial participants.

AMX0035

- Fixed-dose combination of sodium phenylbutyrate and taurursodiol designed to slow or mitigate neurodegeneration

AMX0035: Fixed-dose Combination of Sodium Phenylbutyrate and Taurursodiol Designed to Slow or Mitigate Neurodegeneration

- AMX0035 is designed to mitigate neurodegeneration by targeting ER stress and mitochondrial dysfunction, two cellular processes central to neuronal cell death and neurodegeneration
- Proprietary combination of PB and TURSO allows for synergistic targeting of abnormal cell death to better prevent neurodegeneration than either agent alone
- Focused on diseases in which ER stress and mitochondrial dysfunction are known contributors, including Wolfram syndrome and PSP
 - > Positive Phase 2 HELIOS topline data showed improvement in pancreatic function following 24 weeks of treatment and sustained improvement over time
 - > Phase 2b/3 ORION trial in PSP underway

EXPECTED MILESTONES

2025

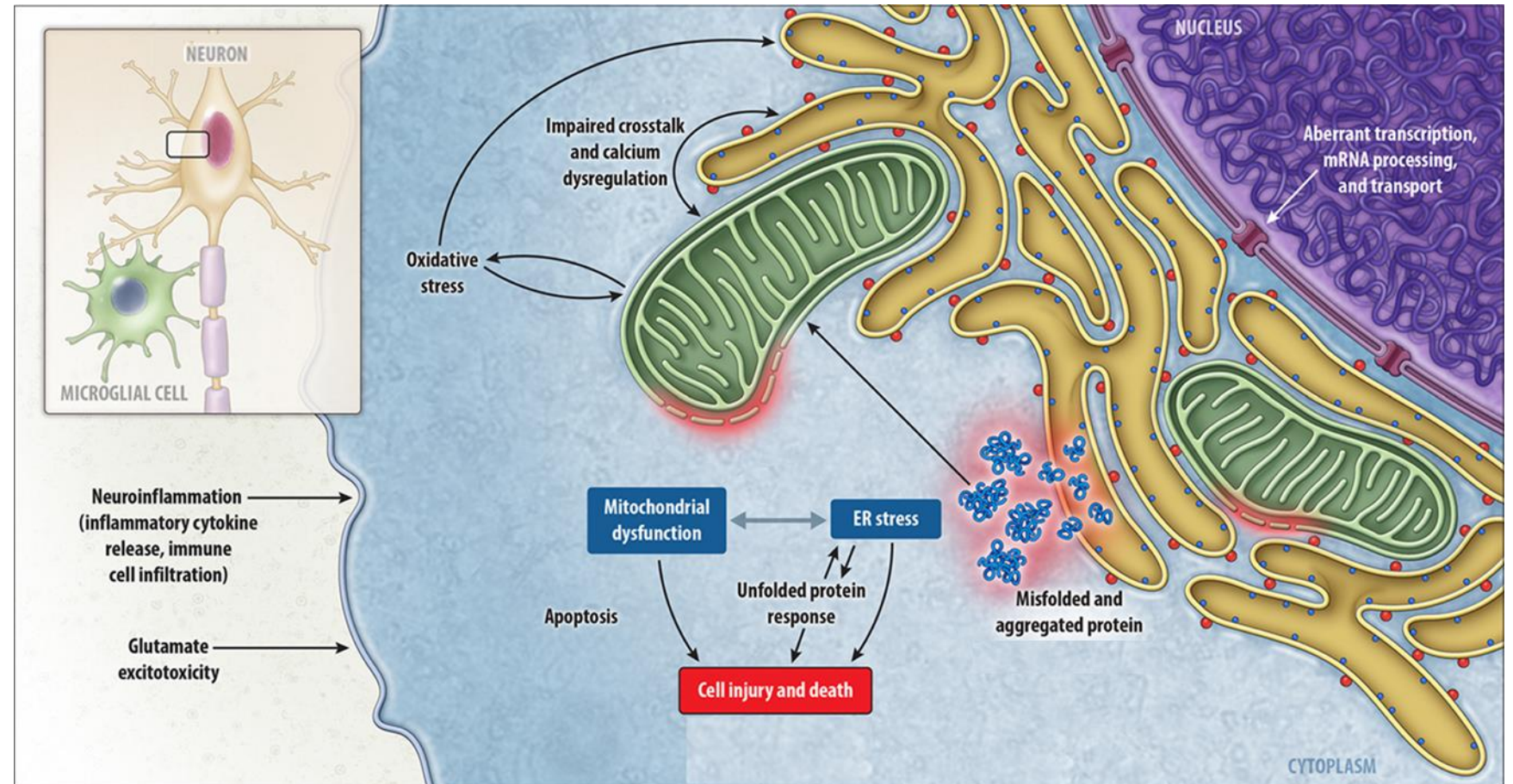
Provide an update on a Phase 3 program in Wolfram syndrome

Mid-2025

Data from interim analysis of Phase 2b/3 ORION trial in PSP

AMX0035 — Designed to Reduce Cell Death

- AMX0035: Dual unfolded protein response (UPR), mitochondrial apoptosis targeting
 - Reduces endoplasmic reticulum (ER) stress-associated death
 - Reduces mitochondrial-dysfunction-associated death



AMX0035 has broad applicability across neurodegenerative diseases

AMX0035 Targets ER Stress and Mitochondrial Dysfunction Simultaneously to Prevent or Slow Cell Death

AMX0035 Effect in Relevant Preclinical Models

- Glutamate excitotoxicity model showing favorable effects on neuronal survival¹
- Models of primary mitochondrial disease showing restoration of mitochondrial functions¹
- Protection against neuronal death in model of primary cortical neuron damage²

AMX0035 demonstrates synergistic* protection of cortical neurons against peroxide-mediated neuronal death in a range of ratios²

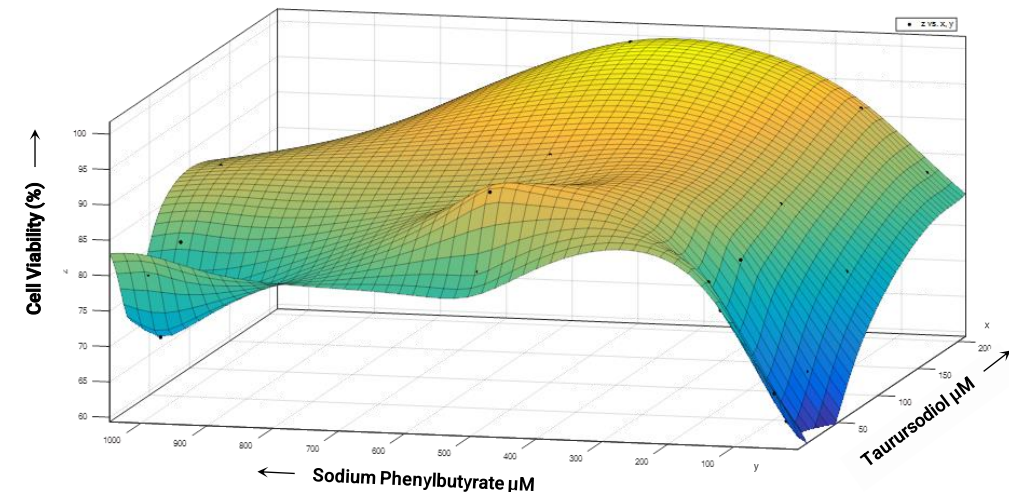


Figure from Cohen J, et al. Clinical trial design for a phase II, randomized, placebo-controlled trial of AMX0035 in amyotrophic lateral sclerosis (CENTAUR). Poster presented at: 28th International Symposium for ALS/MND; December 4–10, 2017; Boston, MA.

* Results for AMX0035 are synergistic relative to PB or TURSO alone.

Wolfram Syndrome Program



Raquel, living with Wolfram syndrome.

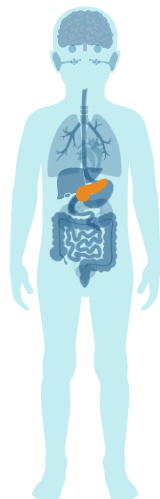
Wolfram Syndrome is a Rare, Fatal, Monogenic, Progressive Disorder¹⁻⁵

WFS1 Gene Mutation

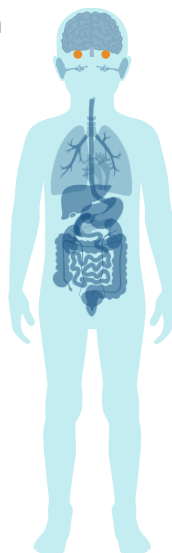


Progressively impacts multiple organs and systems¹⁻⁵

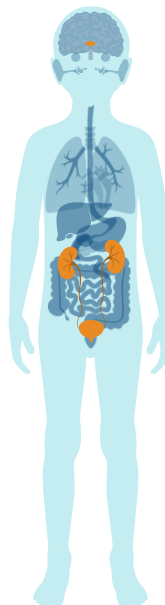
Childhood-onset Diabetes Mellitus
Elevated blood sugar levels from insulin-producing beta cell death



Gradual Loss of Vision Leading to Blindness
Optic nerve cell death



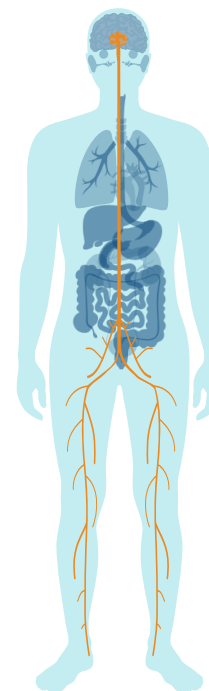
Diabetes Insipidus
Kidneys produce too much urine from a faulty pituitary gland



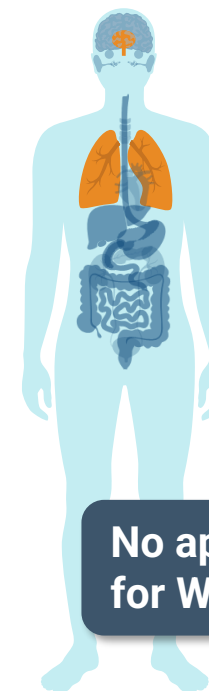
Hearing Loss
From cranial nerve damage



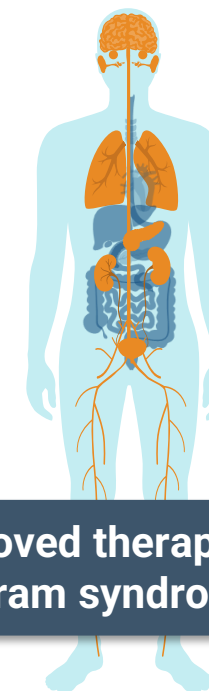
Balance and Coordination Difficulty
Ataxia from cerebellum damage



Difficulty Breathing
From brain stem damage



Death occurs at a median age of 30 years
(range 25-49 years),
mainly from
respiratory failure

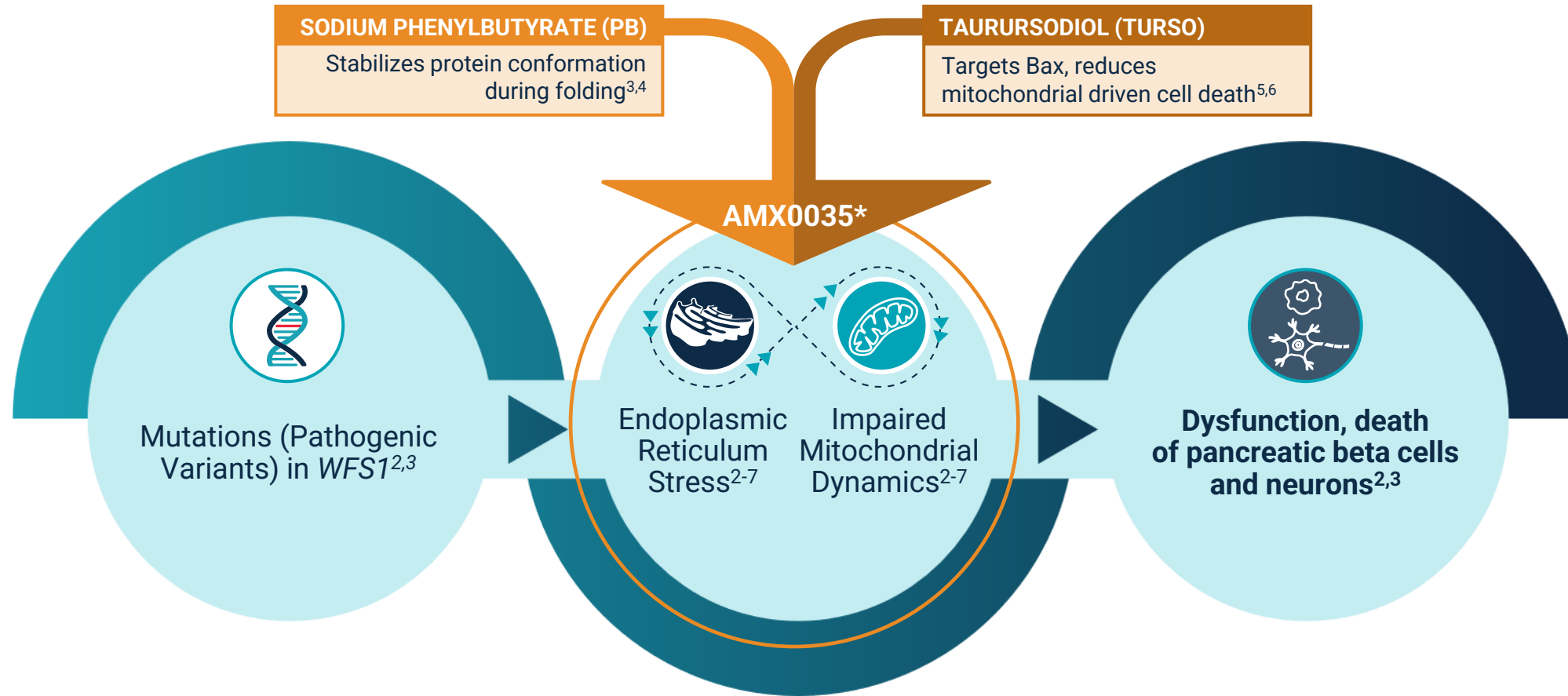


~3,000
people living with
Wolfram syndrome
in the U.S.^{1,2}

**No approved therapies
for Wolfram syndrome⁶**

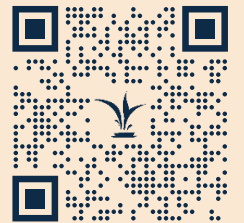
Wolfram Syndrome is a Prototypical Endoplasmic Reticulum Stress Disorder¹

AMX0035 targets endoplasmic reticulum stress and related mitochondrial dysfunction pathways



JCI insight

AMX0035 has been extensively studied in wolfram models including patient-derived cells and mouse model

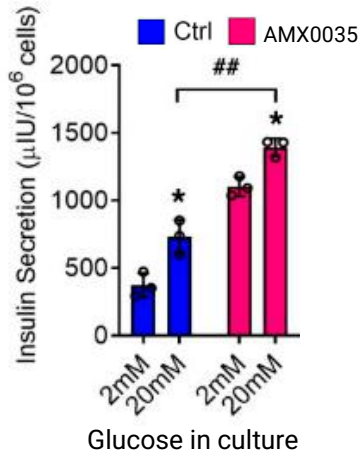


Clear Link of Mechanism of Disease and Mechanism of AMX0035

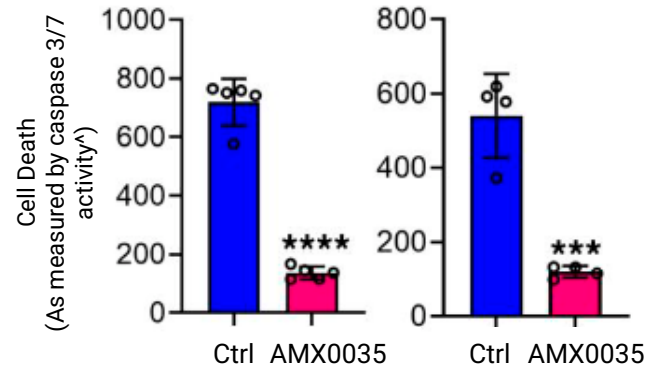
AMX0035 has been Extensively Studied in Wolfram Models including Patient-Derived Cells and Mouse Model

Effect of AMX0035 in Preclinical Studies¹

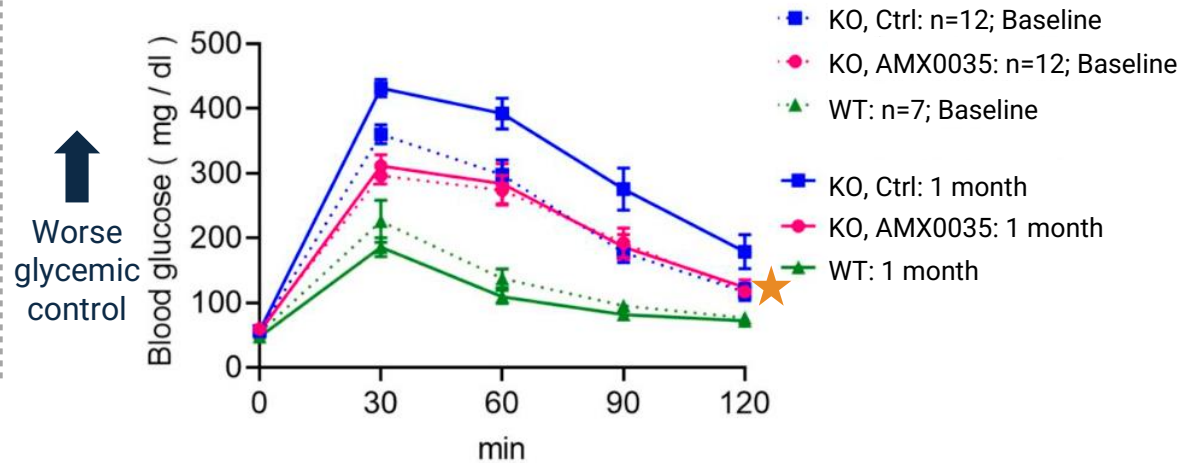
Improved WFS1 Mutant Insulin Secretion in Two Patient-Derived Cell Lines (P<0.05)



Rescued WFS1-Mutant Islet Cell Viability in Patient-Derived Beta Cells (P<0.001)

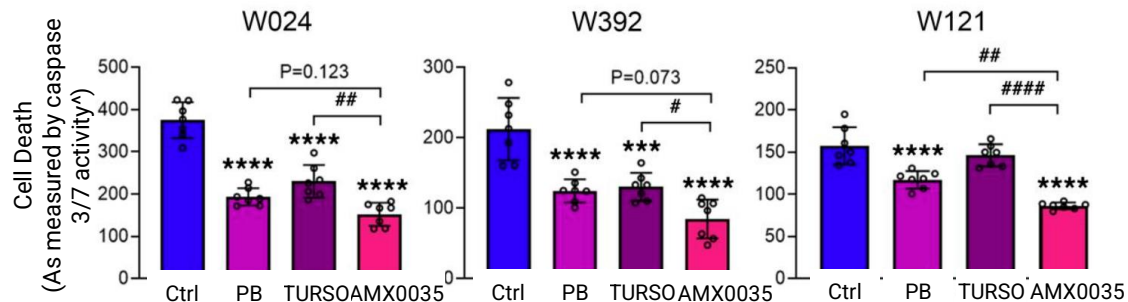


AMX0035-Treated Mice Showed Better Glycemic Control (P<0.001) than Untreated After 1 Month with Minimal to No Diabetes Progression Based on Glucose Tolerance Test (GTT)



*P<0.05 by unpaired t test compared with Ctrl; ***P<0.001 and ****P<0.0001 by unpaired t test compared with Ctrl; #P<0.05 and ##P<0.01 by 2-way unpaired t test; ^Normalized by cell viability

AMX0035 Prevented Cell Death (P<0.0001) In Three Different Patient-Derived Neuronal Cell Models

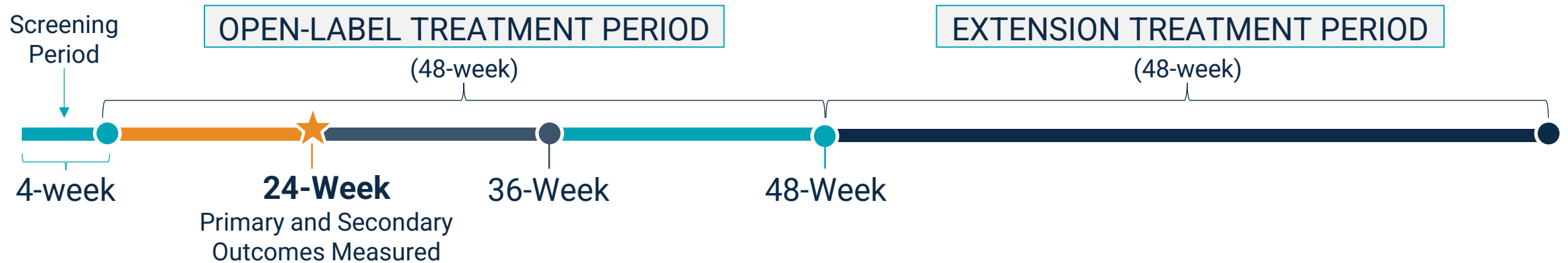


W024, W392, W121 indicate cell lines from specific patients; **PB**, sodium phenylbutyrate; **TURSO**, taurursodiol. ***P<0.001 and ****P<0.0001 by 1-way ANOVA compared with Ctrl; #P<0.05, ##P<0.01, and ###P<0.0001 by 1-way ANOVA; ^Normalized by cell viability



HELIOS Study Design^{1,2}

Open-label clinical trial of AMX0035 in people with Wolfram syndrome, enrolling up to 12 participants



PRIMARY OBJECTIVES:

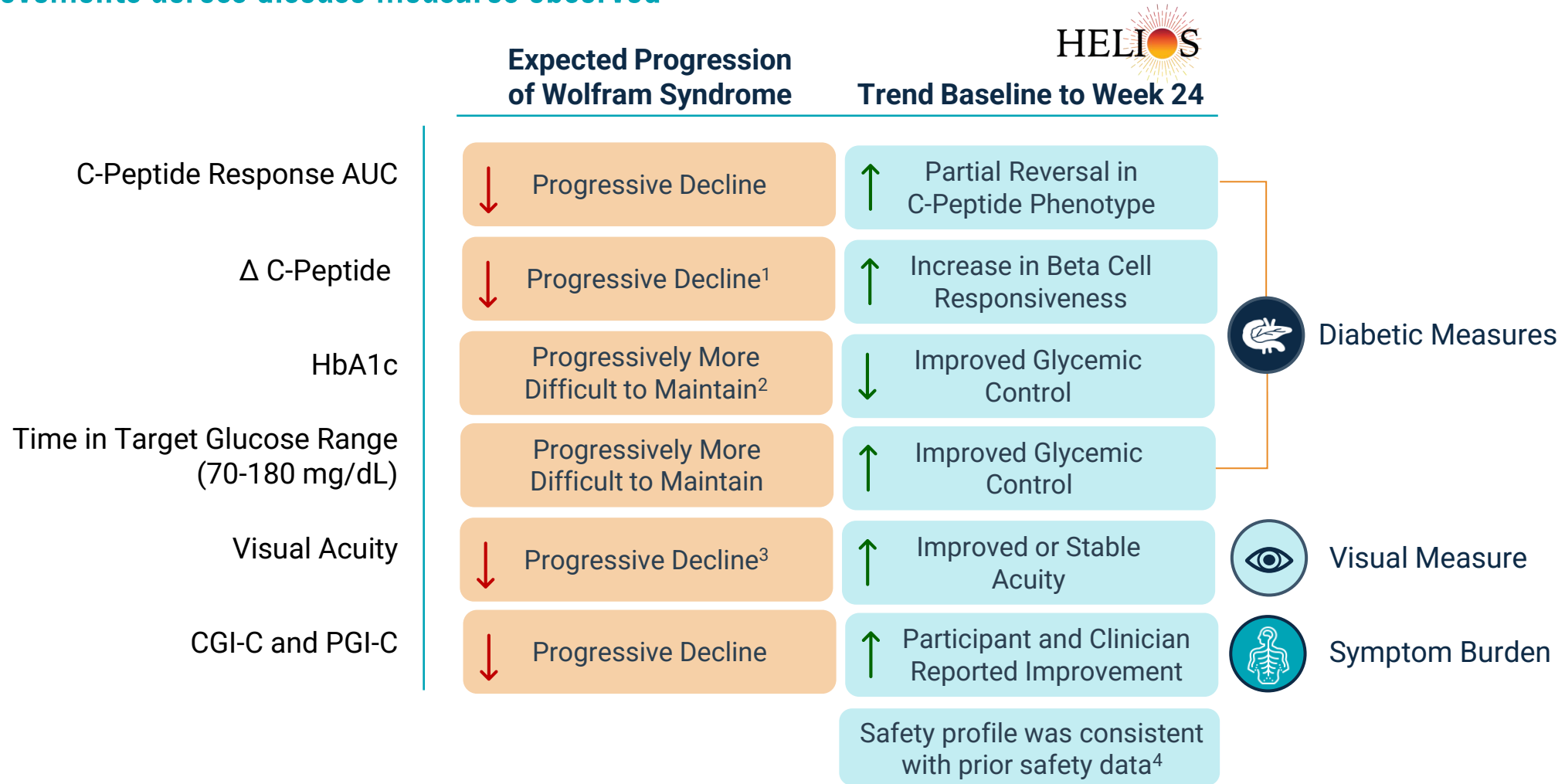
- To assess the safety and tolerability of AMX0035 administered orally for up to 96 weeks
- To evaluate the effect of AMX0035 on residual beta cell function over 24 weeks by monitoring C-peptide levels

KEY TRIAL ENTRY CRITERIA^{1,2}

- Aged ≥ 17 years
- Definite diagnosis of Wolfram syndrome defined by documented pathogenic mutations in *WFS1* gene*
- Stimulated C-peptide level of ≥ 0.2 ng/mL at screening
- Insulin-dependent diabetes mellitus due to Wolfram syndrome
- No current GLP-1 agonist use

Topline Data Suggest Potential Benefit of AMX0035 in Wolfram Syndrome

Improvements across disease measures observed

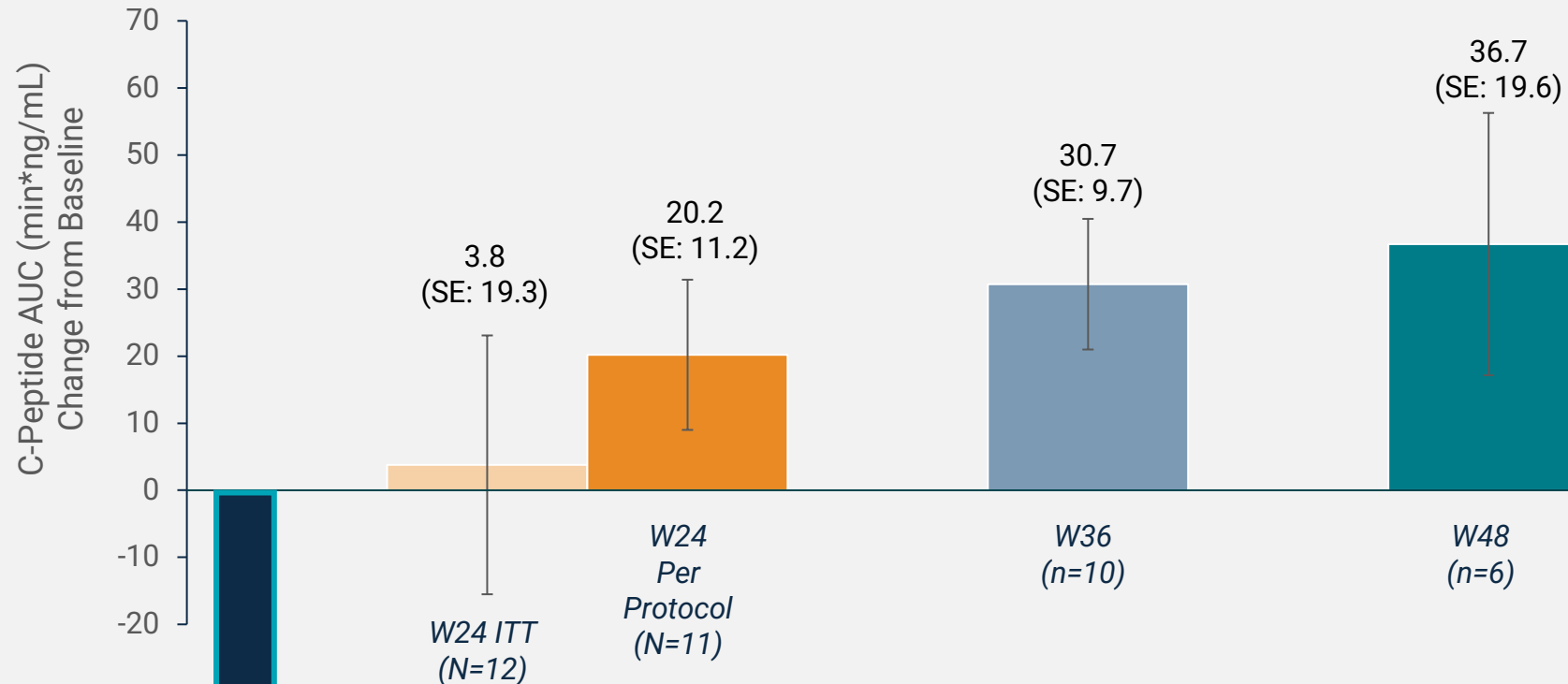


Primary Endpoint: Improvement in C-Peptide Response Observed

Overall increase in mean C-peptide production at 120 minutes*

C-Peptide Response to Mixed Meal Tolerance Test

Change from baseline at 120 Minutes



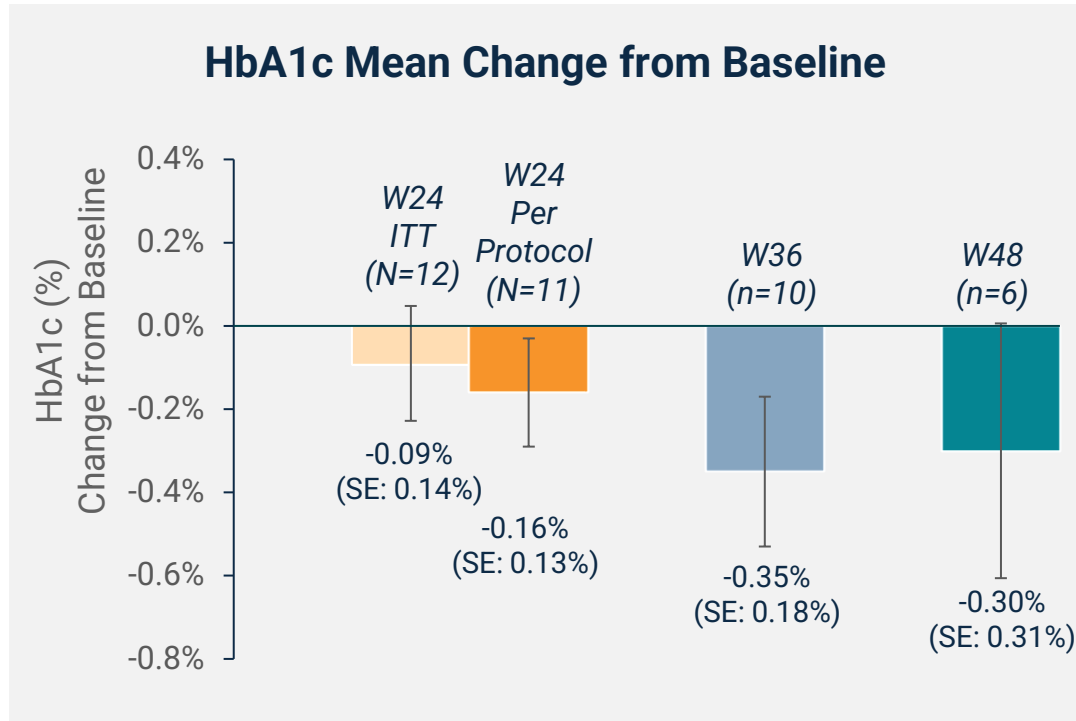
Direction of Expected Change with Wolfram Syndrome Progression

Improvement in C-Peptide Response Observed Compared to Screening

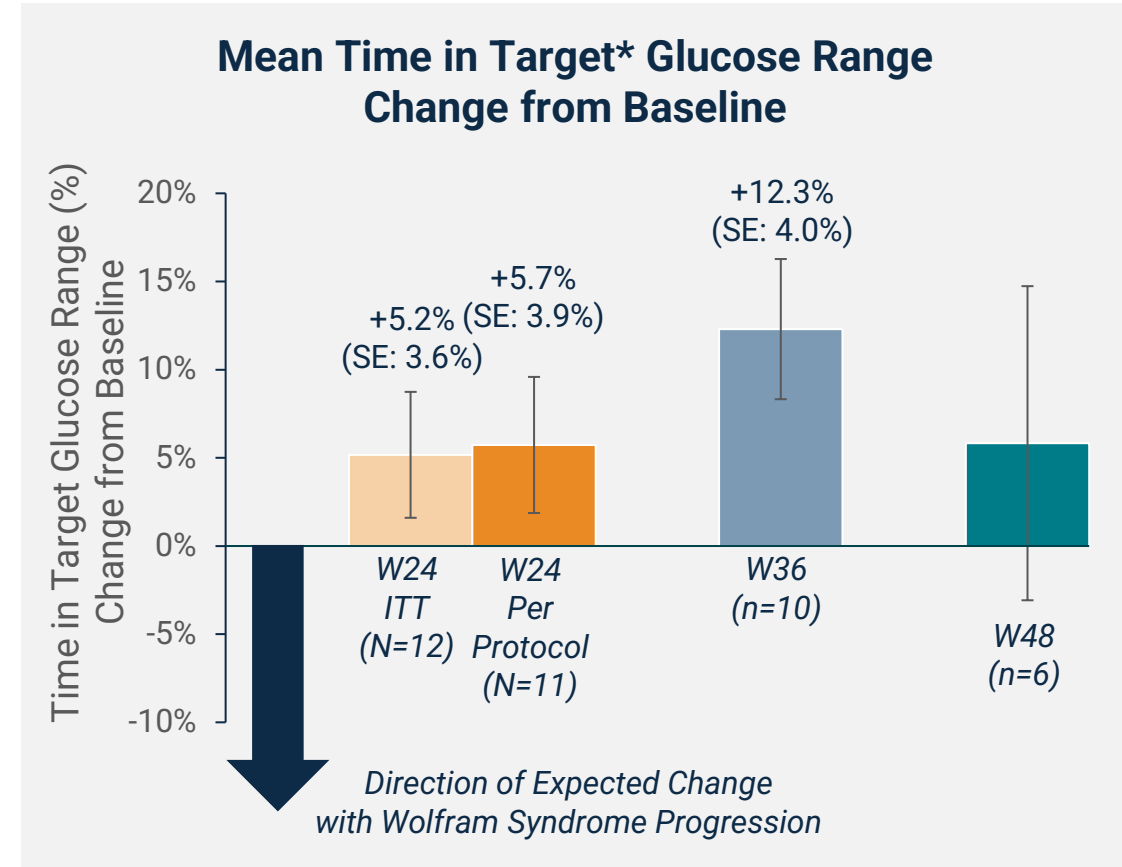


WS NATURAL HISTORY EXPECTATIONS: C-peptide progressively decreases

Secondary Endpoint: Improved Glycemic Control



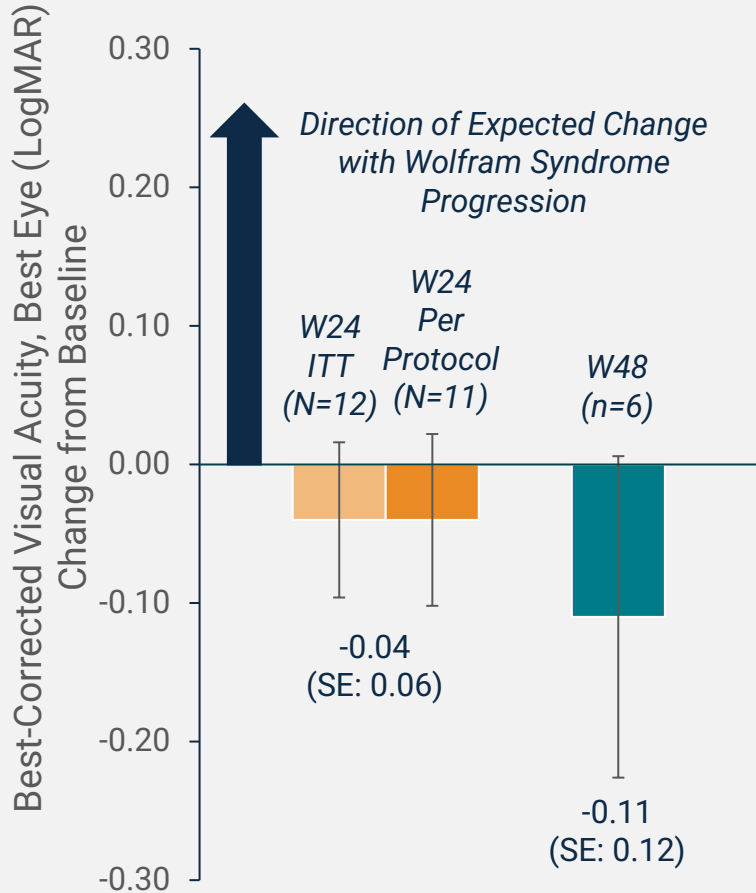
Improved Glycemic Control as Measured by HbA1c Compared to Screening
 Lower HbA1c is associated with improved metabolic function



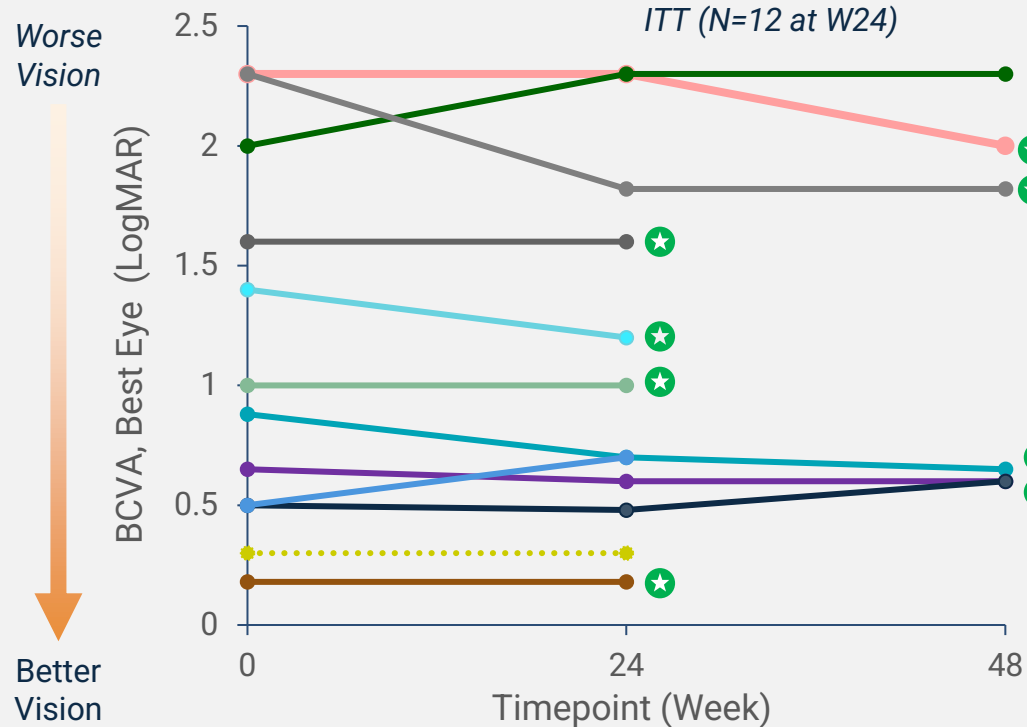
Improved Glycemic Control as Assessed by Continuous Glucose Monitoring (CGM) Compared to Screening

Secondary Endpoint: Trends Indicating Potential Visual Acuity Improvement or Stabilization

BCVA, Best Eye Mean Change from Baseline



Best Corrected Visual Acuity (BCVA), Best Eye by Participant



8 of 11 in Per Protocol demonstrated improved or stable visual acuity in their best eye from Screening to latest available timepoint

Includes 2 participants blind at baseline who now have some vision in one eye

Of remaining participants:

- 2 stable in one eye
- 1 worsened

Trends Indicating Potential Visual Acuity Improvement or Stabilization Compared to Screening



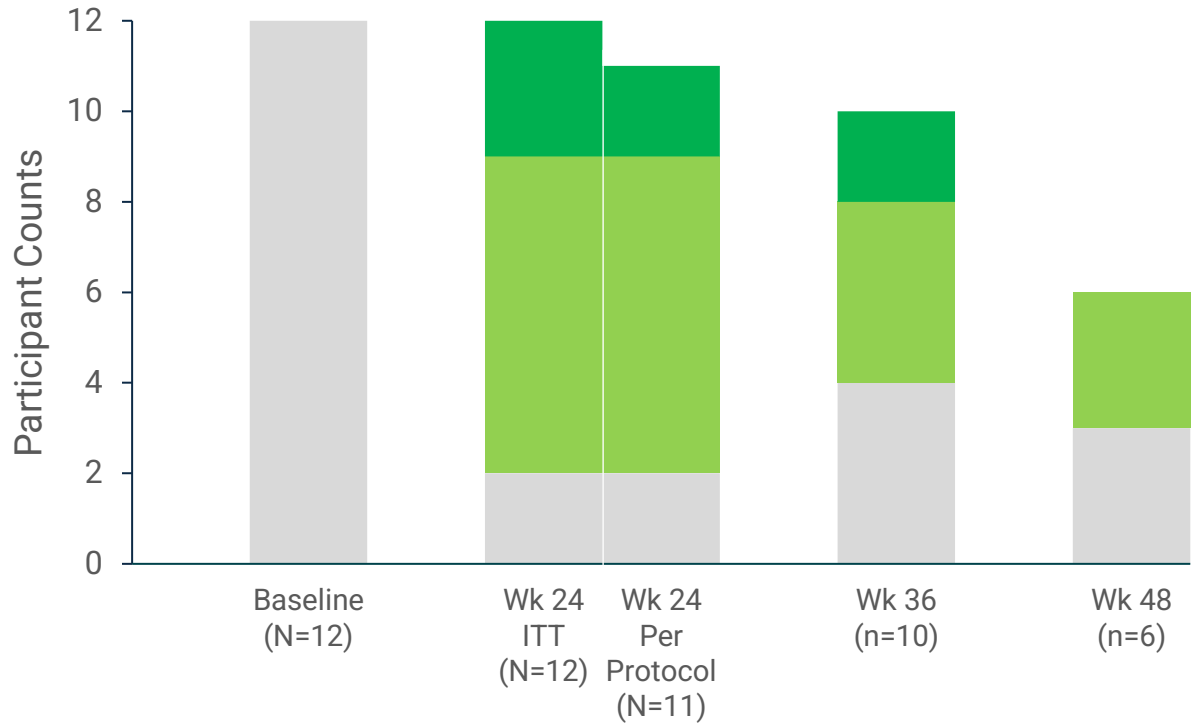
WS NATURAL HISTORY EXPECTATIONS: Visual acuity progressively **worsens** (increasing LogMAR)

Exploratory Endpoint: PGI-C and CGI-C

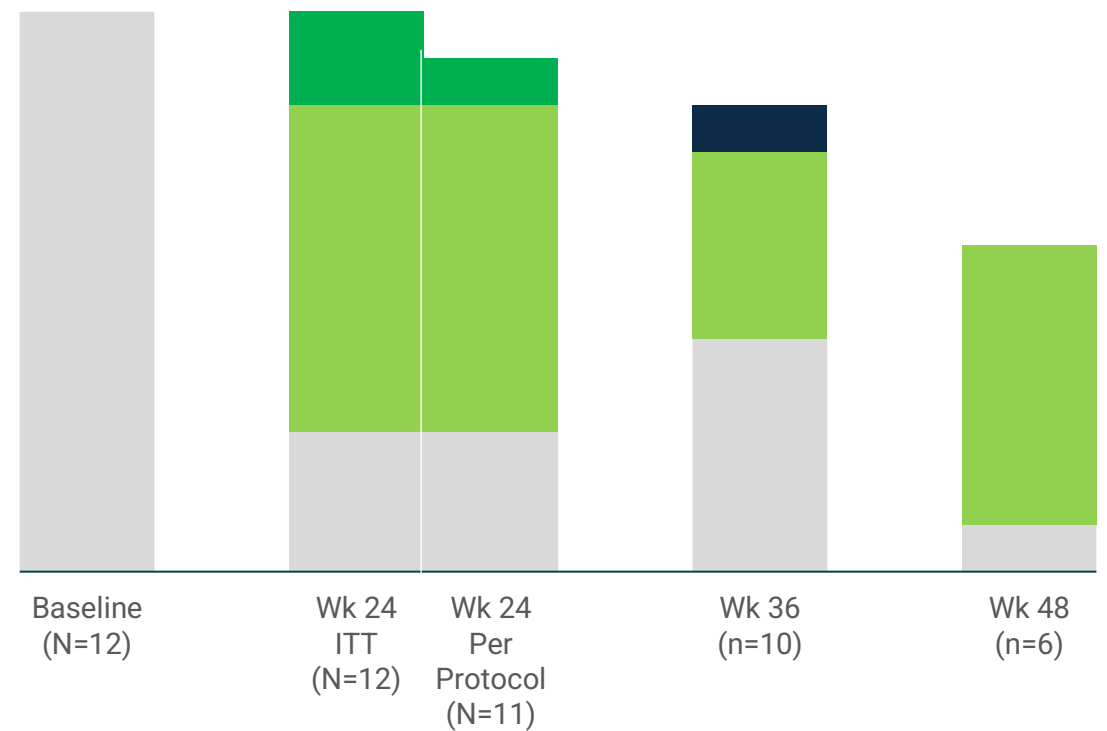
100% of Participants Met Responder* Criteria by Self and Clinician Assessment

At Week 24, 82% of Per Protocol participants claimed to have improved on AMX0035; 73% improved based on clinician report

Patient-Reported Global Impression of Change (PGI-C)



Clinician-Reported Global Impression of Change (CGI-C)



No Change
 Minimally Improved
 Much Improved
 Very Much Improved

AMX0035 Safety and Tolerability in HELIOS

- AMX0035 was **generally well tolerated**
 - Diarrhea was the most common TEAE (50.0%); all cases were of mild severity
 - All TEAEs were graded mild or moderate
- **No new safety signals** were identified
- Nearly all participants reported ≥ 1 TEAE during the trial
 - Most did not lead to modification or interruption of AMX0035 dosing and **none led to drug discontinuation**

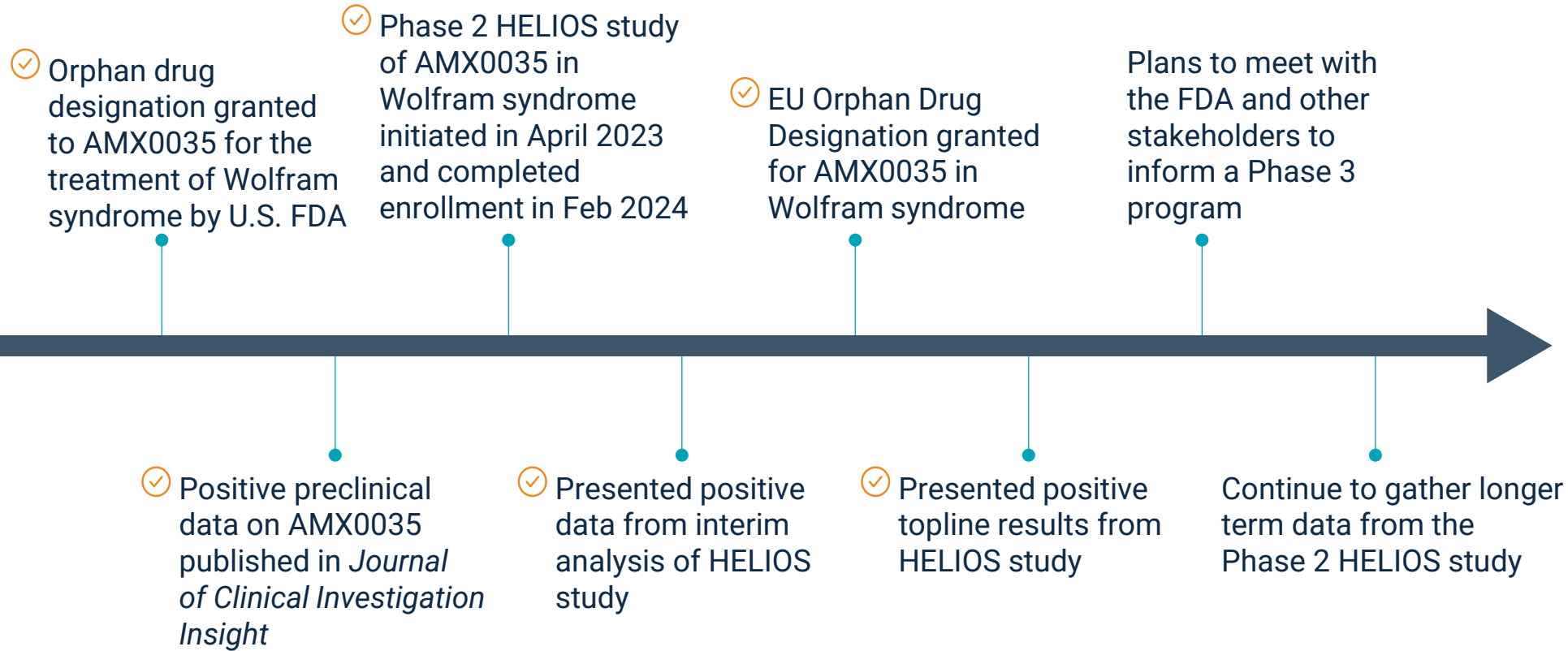
Summary of Treatment Emergent Adverse Events (TEAEs)

	AMX0035 (N=12)*
Participants with ≥ 1 TEAE – n (%)	11 (91.7%)
TEAE related to study drug** – n (%)	9 (75.0%)
Serious adverse events – n (%)	0 (0%)
Drug interrupted owing to TEAE – n (%)	3 (25.0%)
Dose reduced owing to TEAE – n (%)	3 (25.0%)
Drug discontinued owing to TEAE – n (%)	0 (0%)

*All available safety data as of July 31, 2024 included

**Includes those with TEAEs considered possibly related to treatment; none considered “probably related” or “definitely related”

AMX0035 Wolfram Syndrome Program Next Steps



Raquel, living with Wolfram syndrome.



In memory of Lauren, a beautiful daughter and passionate Wolfram syndrome warrior.

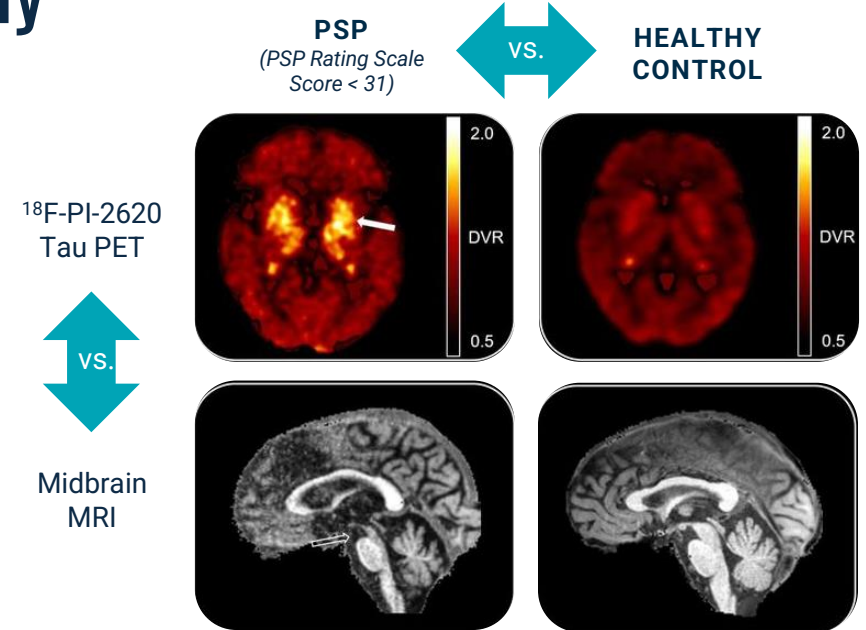
A stylized neuron graphic with a central cell body and several branching processes extending outwards. The cell body is a light green starburst shape. The processes are represented by wavy lines in orange and light blue. The orange lines extend to the left and bottom-left, while the light blue lines extend to the top and right.

Progressive Supranuclear Palsy (PSP) Program

ORION

PSP is a Rare, Progressive, and Fatal Tauopathy

- PSP affects body movements, including balance and eye movements
- No disease-modifying therapies approved
- PSP is considered a tauopathy based on the strong genetic link between tau variants and disease development and the presence of abnormal tau protein deposits in the brain
- Alterations to the structure of tau drive neurodegeneration
- Similar to other neurodegenerative diseases, pathophysiologic changes underlying PSP are likely multifactorial, including genetic mutations, endoplasmic reticulum (ER) stress, mitochondrial dysfunction, and neuroinflammation
- Biomarker data from Phase 2 trial of AMX0035 in Alzheimer's disease demonstrated a significant reduction in tau



PSP is typically fatal within 6-8 years from symptom onset³⁻⁶



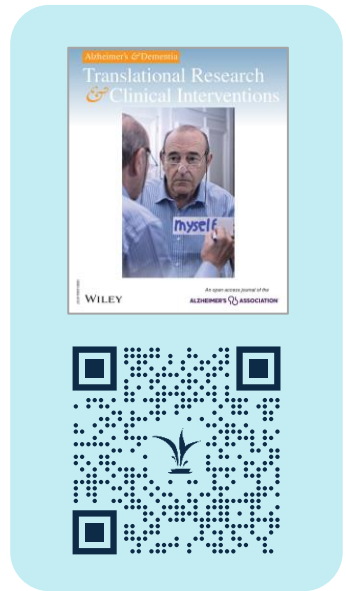
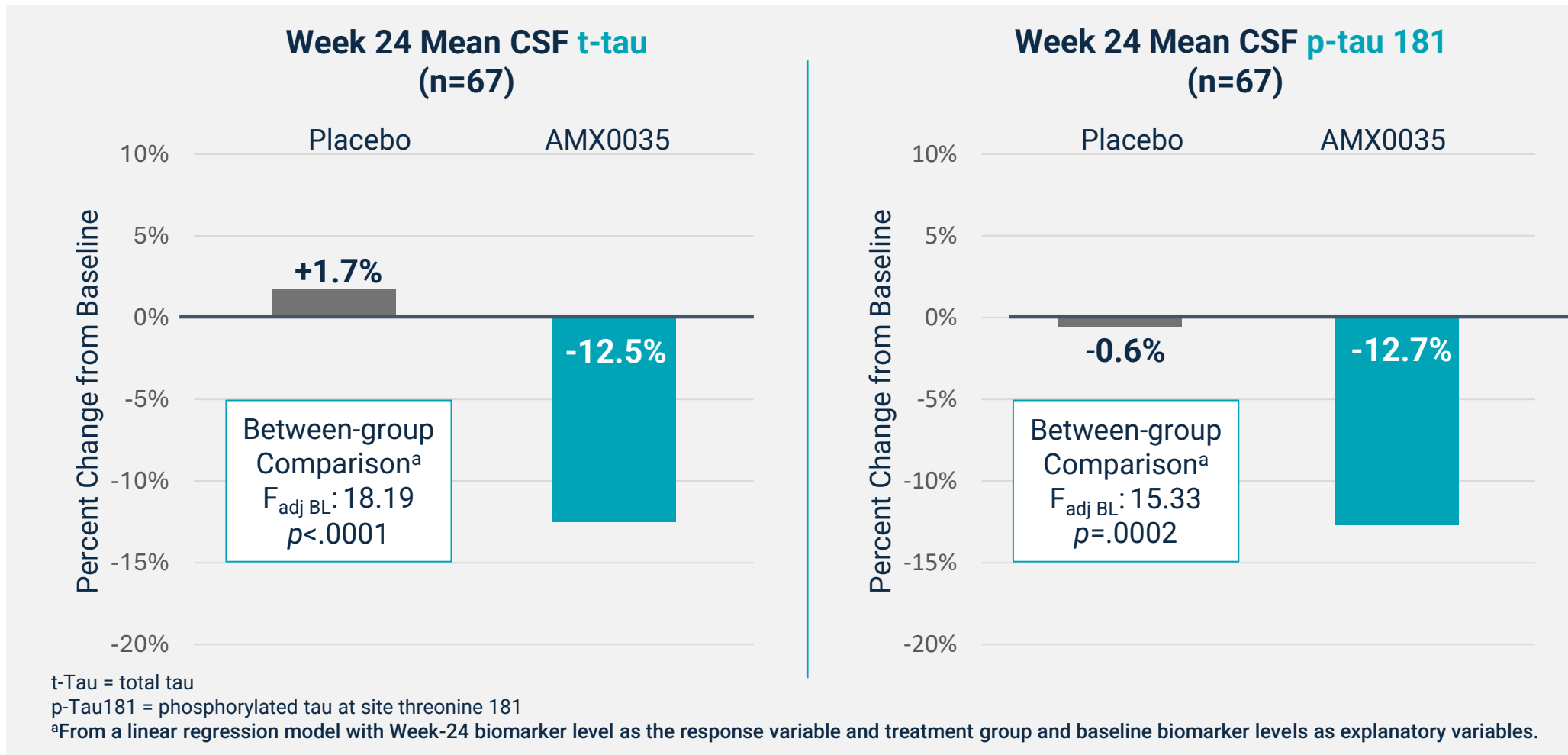
ESTIMATED PREVALENCE:

7 in 100,000 worldwide^{1,2}

U.S. PREVALENCE:

Approximately 23,000

AMX0035 Significantly Lowered CSF Tau and p-Tau in Randomized Placebo Controlled Phase 2 PEGASUS Trial in People with Alzheimer's Disease

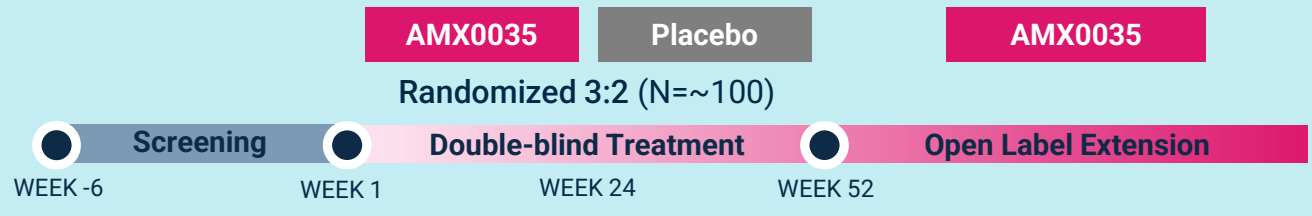


ORION: Operationally Seamless Phase 2b/3 Clinical Trial Underway



Primary Objective: To assess the impact of AMX0035 compared to placebo on disease progression rate as measured by PSPRS

PHASE 2B STUDY PORTION DESIGN



Interim Analysis expected in mid-2025

Proceed to Phase 3 if Data are Strong

PHASE 3 STUDY PORTION DESIGN



Key Eligibility Criteria

- Adults 40-80 years old
- Possible or Probable PSP (Steele-Richardson-Olszewski Syndrome) according to MDS 2017 criteria^{1,2}
- Presence of PSP symptoms < 5 years
- Able to walk independently or with minimal assistance³
- PSPRS total score < 40
- MMSE score ≥ 24
- Study partner required
- No feeding tube use

Primary Endpoint

- PSPRS score*

Secondary Endpoints

- PSPRS score*
- MDS-UPDRS Part II score

Additional Endpoints

- Brain volume (MRI)
- Participant QoL and caregiver burden
- CSF and plasma biomarkers of neuronal injury and neuro-inflammation
- Overall survival

AMX0114 Program

- Potent antisense oligonucleotide (ASO) targeting calpain-2

AMX0114: Antisense Oligonucleotide (ASO) Targeting CAPN2 for the Potential Treatment of ALS

- ALS leads to deteriorating muscle function, inability to move and speak, respiratory paralysis, and death^{1,2}
- ALS affects as many as 30,000 adults in the U.S.³
 - >90% of people have no family history of disease
- CAPN2, a protein involved in neurofilament biology, plays an essential role in axonal degeneration, a critical effector in the progression of ALS
- In preclinical studies, treatment with AMX0114 resulted in potent, dose-dependent, and durable reduction in CAPN2 mRNA and calpain-2 protein levels in disease-relevant cell models of axonal degeneration
- Phase 1 LUMINA trial will evaluate the safety and biological activity of AMX0114 in people living with ALS

EXPECTED MILESTONES

By End of 2024
or Q1 2025

Initiate Phase 1 LUMINA
trial of AMX0114 in
people living with ALS

2025

Early cohort data for
the Phase 1 LUMINA
trial expected

AMX0114 was developed in-house as part of our larger R&D strategy to discover and develop novel therapies

Calpain-2 Plays a Critical Role in Axonal Degeneration, a Key Mechanism Underlying ALS Pathophysiology

Evidence for Targeting Calpain-2 in ALS⁴⁻⁷



Calpain-2 levels are elevated in people with ALS



Inhibition of calpain-2 has shown benefit in ALS mouse model



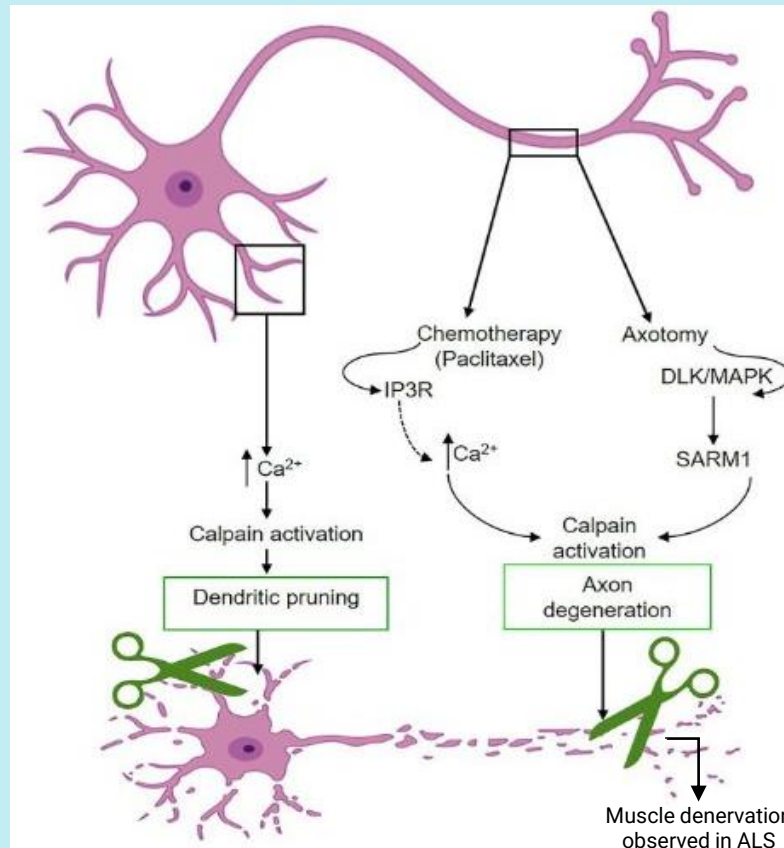
Calpain-2 substrates include neurofilament and TDP-43



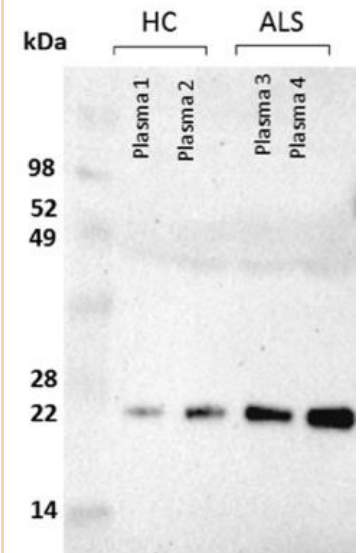
AMX0114 has shown efficacy in pre-clinical ALS models

Multiple injury paradigms and hypotheses of axonal degeneration converge on calpain-2

Mechanisms of Axonal Degeneration⁸

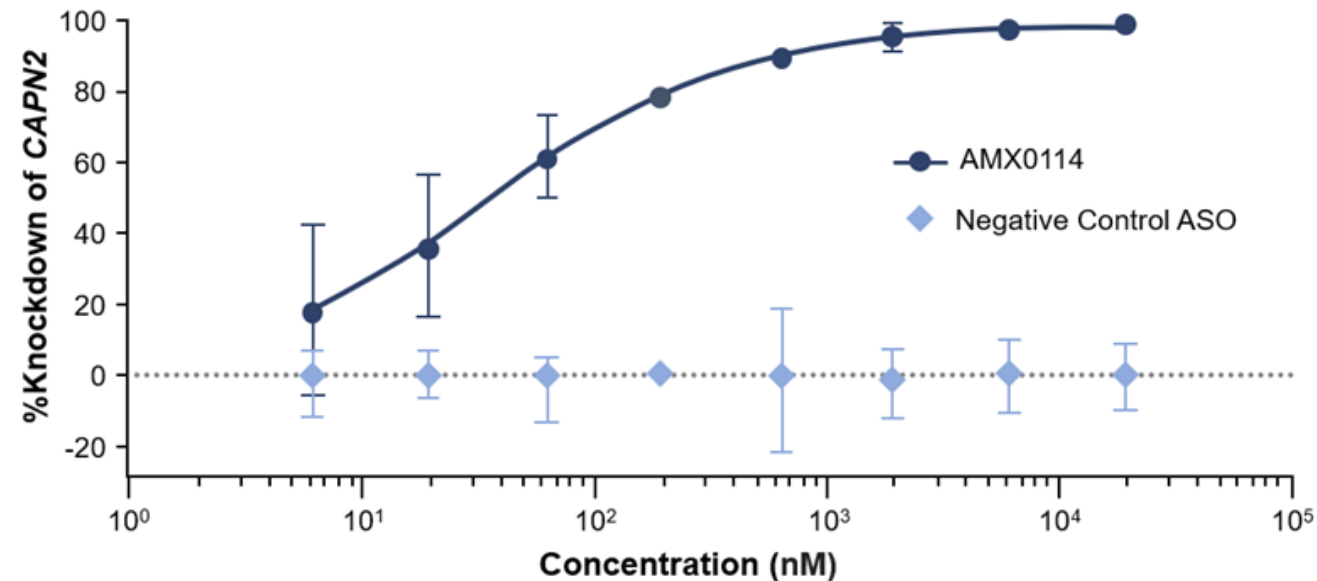


Full Length Neurofilament (68 kDa) is not observed in ALS or Healthy Control



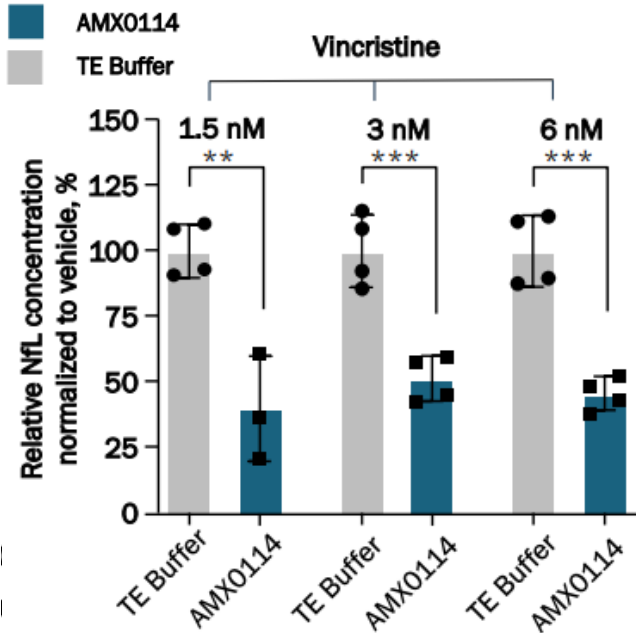
AMX0114 Achieves Potent, Dose-Dependent, and Durable Knockdown of *CAPN2* mRNA and Calpain-2 Protein

Demonstrated across multiple disease-relevant cell types and preclinical models of axonal degeneration

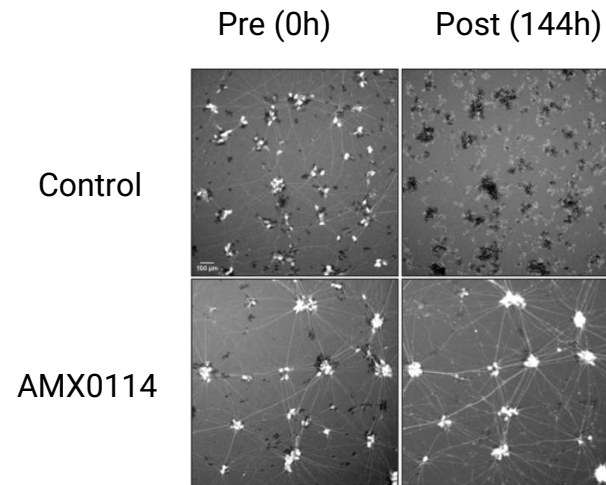


- mRNA reduction >90% at a concentration of 20x10³ nM (20 μM) in human motor neurons
- Potency (half-maximal effective concentration or EC₅₀) ≈ 40-100 nM

AMX0114 Reduces Extracellular NfL Levels in Multiple Models of Trigger-Induced Injury Neuronal Injury and Improves Survival in Relevant Models



Representative Images of Motor Neurons Pre- and Post-Exposure to H₂O₂

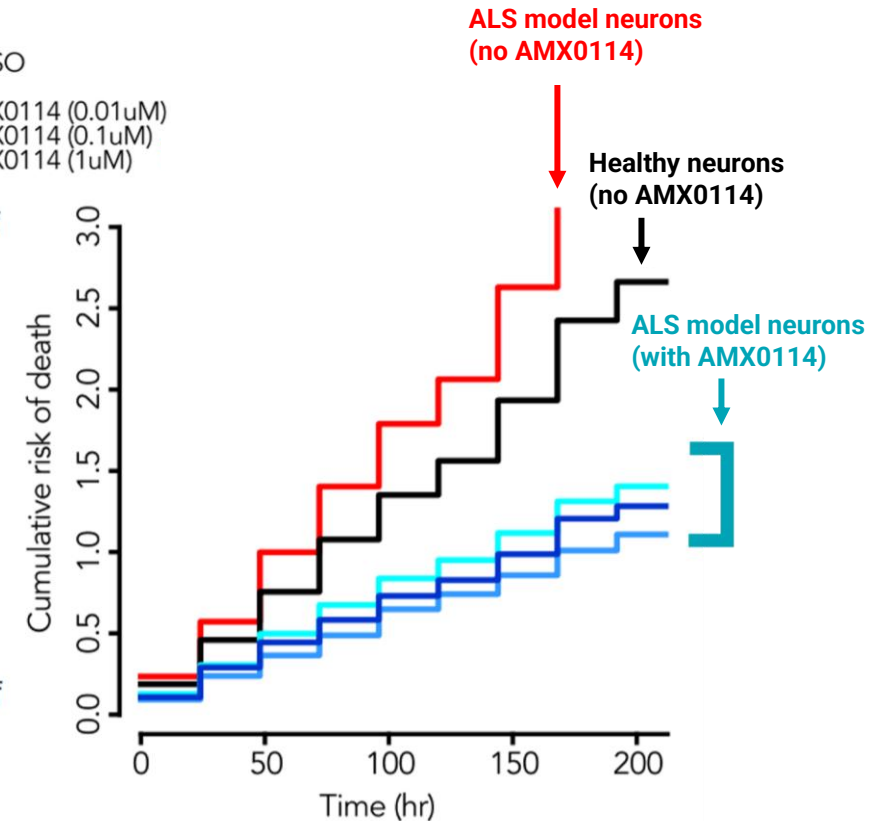


TDP-43 ALS Model

- M337V + DMSO
- WT + DMSO
- M337V + AMX0114 (0.01uM)
- M337V + AMX0114 (0.1uM)
- M337V + AMX0114 (1uM)

Higher risk of death

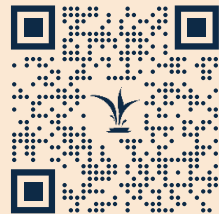
Lower risk of death



Similar NfL Reduction in Rotenone and Colchicine models

NS = $P > .05$.
 * = $P < .05$.
 ** = $P < .01$.
 *** = $P < .001$.
 **** = $P < .0001$.
 NfL, neurofilament light chain;
 NS, not significant; TE, tris ethylenediaminetetraacetic acid.

Presented at

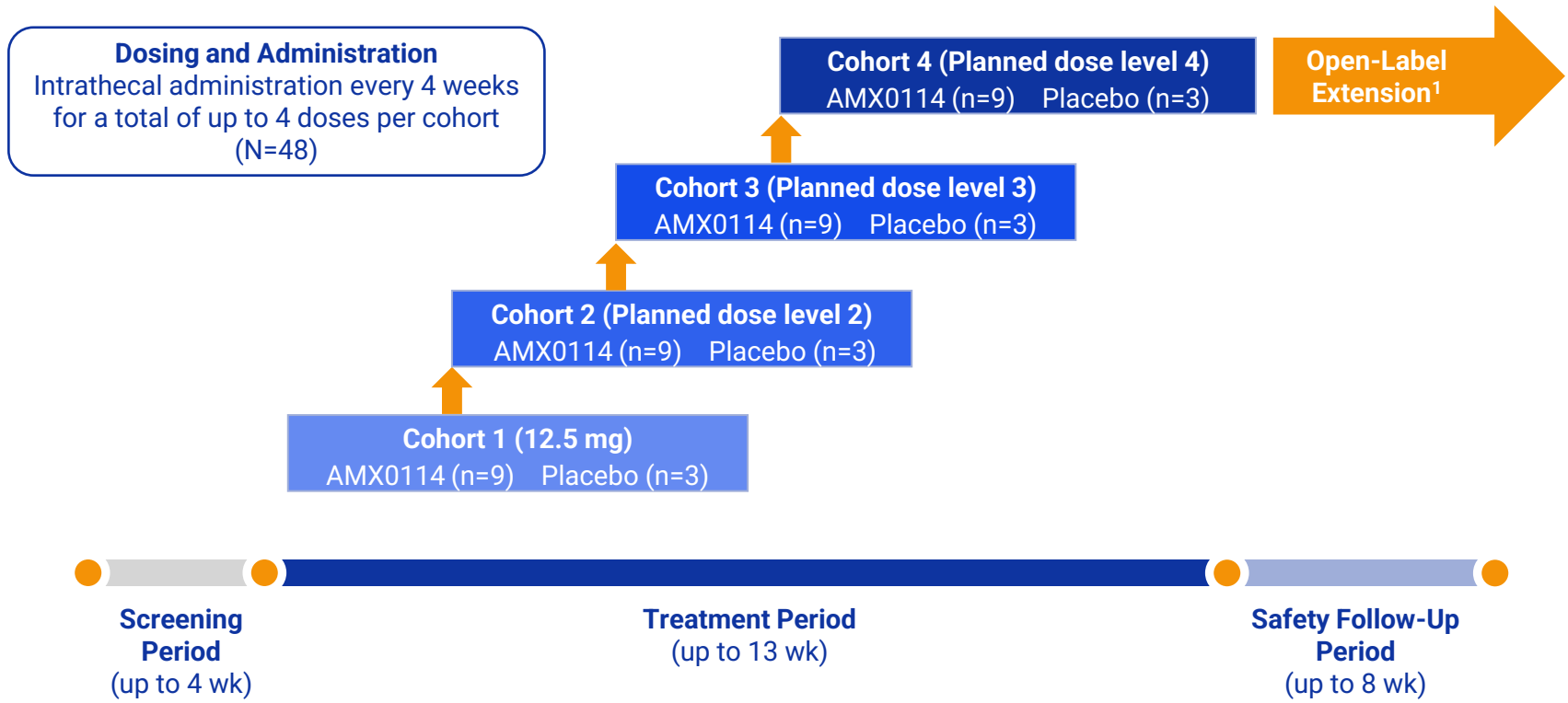


★ Plan to initiate LUMINA in Canada by end of 2024 or in early 2025; early cohort data expected in 2025

LUMINA: Phase 1 Clinical Trial of AMX0114 in ALS



Primary Objective: To assess the safety, tolerability, pharmacokinetics (PK), and pharmacodynamics (PD) of AMX0114 in people living with ALS



Key Eligibility Criteria

- Aged ≥18 years
- Diagnosis of clinically definite or clinically probable ALS, based on El Escorial criteria
- Time since onset of first symptom of ALS <24 months
- Slow vital capacity (SVC) > 75%
- Stable dose of ALS approved treatments for at least 30 days prior to baseline visit

Primary Endpoint

- Safety and tolerability

Secondary Endpoints

- PK concentrations

Additional Endpoints

- Change from baseline of plasma and CSF pharmacodynamic measures of ALS and markers of target engagement (e.g., calpain-2 levels, NfL, SBDP-145)
- Change from baseline of ALS Functional Rating Scale – Revised (ALSFRS-R) and slow vital capacity (SVC)

Avexitide, AMX0035, and AM0114 are Protected by Robust Global IP Portfolio

AVEXITIDE

>150

granted patents and over 30 pending applications worldwide*

- Granted US patent rights through 2037**
- Positioned for NCE exclusivity
- Granted Orphan Drug Designation for the treatment of hyperinsulinemic hypoglycemia

AMX0035

>70

granted patents and over 60 pending applications worldwide

- Granted US patent rights through 2040
- Granted Orphan Drug Designation for the treatment of Wolfram syndrome

AMX0114

Pending composition of matter patent provides potential patent term through 2043 if granted

- Positioned for NCE exclusivity

* Includes in-licensed patents

** Additional patent term potentially available through patent term extension

Expected Cash Runway into 2026

\$234.4M in cash, cash
equivalents, and short-term
investments as of 9/30/24

Team

Experienced Executive Team to Oversee Clinical Development and Execution



Joshua Cohen, BSE

Co-CEO and Director

Co-Founded Amylyx, Co-CEO since 2013, led preclinical, clinical and commercial development of Relyvrio as well as IPO and ~\$1B in financing



Justin Klee, ScB

Co-CEO and Director

Co-Founded Amylyx, Co-CEO since 2013, led preclinical, clinical and commercial development of Relyvrio as well as IPO and ~\$1B in financing



Jim Frates

Chief Financial Officer

22-year CFO at Alkermes; grew to >\$1B in annual revenue and >2,000 employees worldwide



Camille L. Bedrosian, MD

Chief Medical Officer

Nearly 30 years of experience within the biotech industry; Former CMO at Ultragenyx, Alexion, and ARIAD



Tom Holmes

Chief Technical Operations Officer

More than 25 years of biotech experience. Former Head of Global External Manufacturing at Biogen



Gina M. Mazzariello

Chief Legal Officer and General Counsel

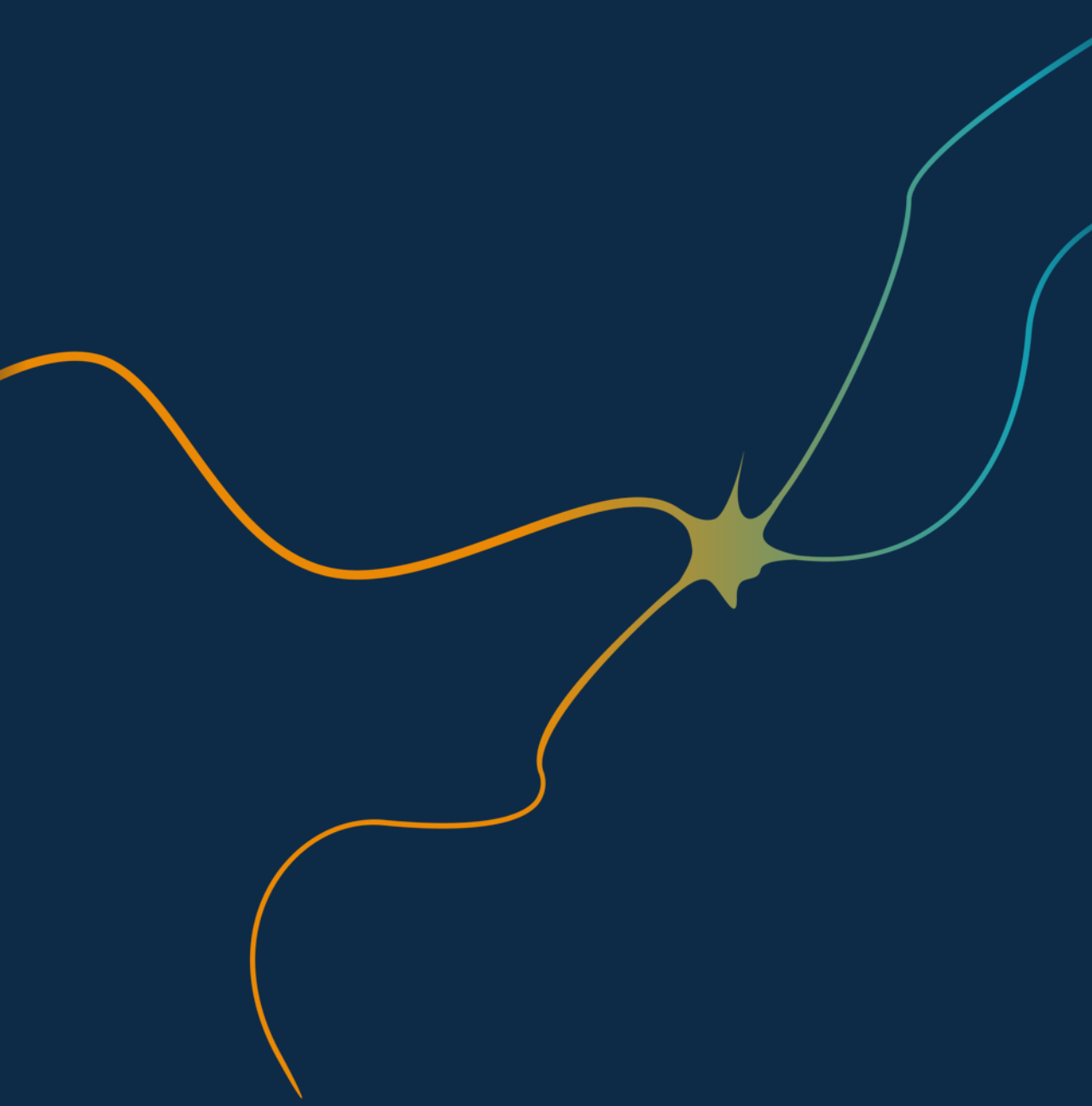
20+ years of corporate and commercial legal experience within the healthcare industry, including at Boehringer Ingelheim



Linda Arsenault

Chief Human Resources Officer

25+ years of global HR experience at multibillion-dollar life sciences and technology companies, including at Sumitomo Pharma America Holdings (SMPA)



Ushering in a new era
for treating diseases
with high unmet needs

