David Stamler, MD
CEO

AGM
22 November 2024

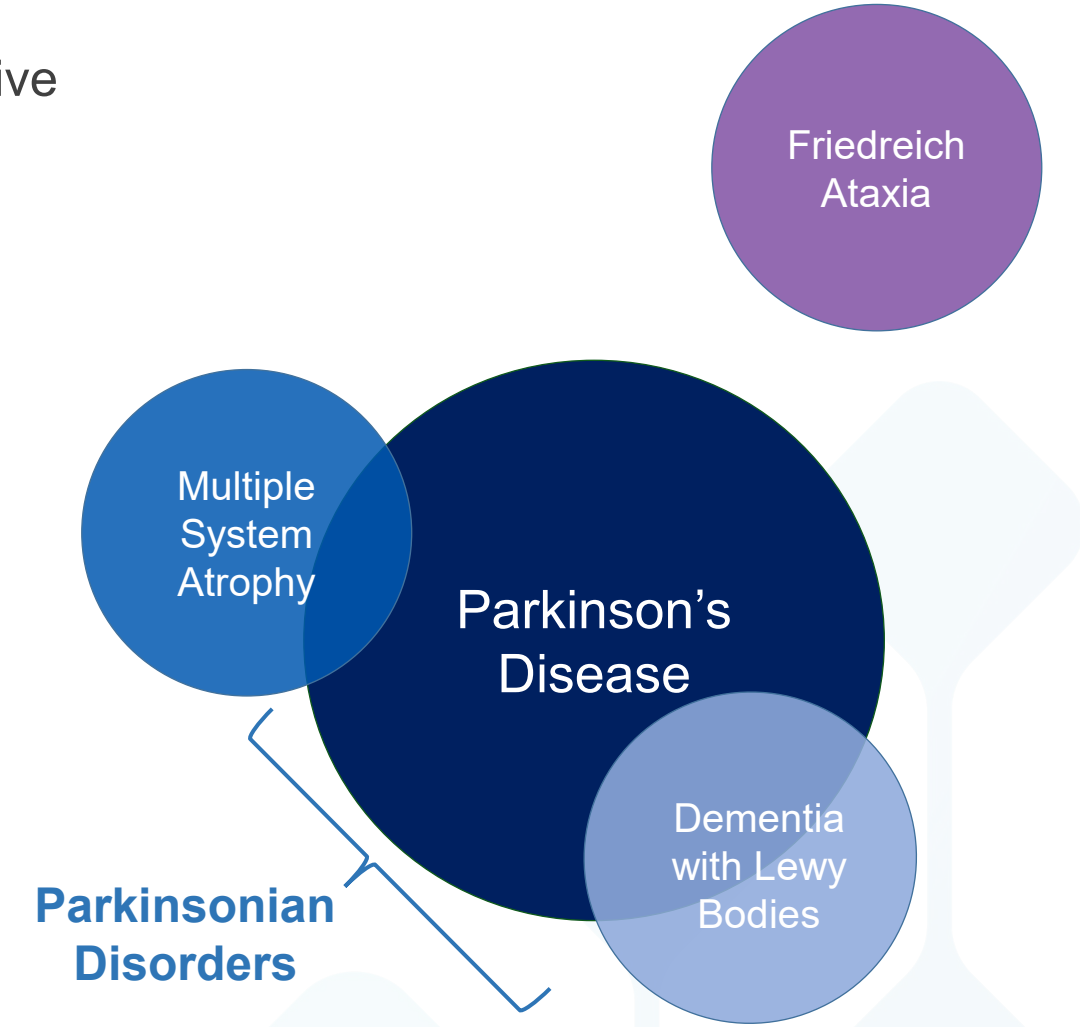
Alterity THERAPEUTICS

Forward Looking Statements

This presentation may contain some statements that may be considered “Forward-Looking Statements”, within the meaning of the US Securities Laws. Thus, any forward-looking statement relating to financial projections or other statements relating to the Company’s plans, objectives, expectations or intentions involve risks and uncertainties that may cause actual results to differ materially. For a discussion of such risks and uncertainties as they relate to us, please refer to our 2023 Form 20-F, filed with US Securities and Exchange Commission, in particular Item 3, Section D, titled “Risk Factors.’’

Targeting Iron-Related Neurodegenerative Diseases

- Iron: central to pathology of many neurodegenerative diseases
- Parkinsonian disorders include
  - Parkinson's disease (PD)
  - Rare diseases with similar motor symptoms
    - Multiple System Atrophy (MSA)
    - Dementia with Lewy Bodies (DLB)
  - Similar underlying pathology
- Friedreich's Ataxia
  - Rare disease with uncoordinated movements
  - Genetic disorder that appears in childhood



Promising Portfolio in Neurodegenerative Diseases

Alterity THERAPEUTICS

ASSET		PHASE					PARTNER
PROGRAM	**INDICATION**	**DISCOVERY**	**PRE-CLINICAL**	**NATURAL HISTORY**	**PHASE 1**	**PHASE 2**	**PARTNER / COLLABORATOR**
ATH434-201	Multiple System Atrophy *Early Stage*				*Enrollment Complete*		
ATH434-202	Multiple System Atrophy *Advanced*				*Enrollment Complete*		
ATH434	Parkinson's Disease						THE MICHAEL J. FOX FOUNDATION FOR PARKINSON'S RESEARCH
bioMUSE	Multiple System Atrophy *Natural History Study*						VANDERBILT UNIVERSITY MEDICAL CENTER
ATH434	Friedreich's Ataxia						
Drug Discovery	Neurodegenerative Diseases						

Significant Commercial Opportunity in Treating Multiple System Atrophy

Substantial Unmet Need

Severely debilitating illnesses with no current treatments are ripe for new entrants targeting underlying pathology of the disease.

Unique MOA

Inhibition of protein aggregation is a novel mechanism of action that may prove to impact more than motor symptoms.

Strong Intent to Prescribe

Motivated by efficacy of treating the underlying disease and not just the symptoms, clinicians intend to offer ATH434 to most of their patients with MSA.

Ease of Use

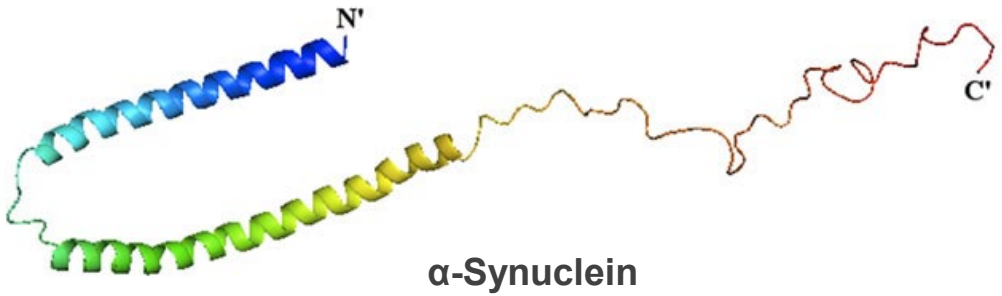
Twice daily oral administration of ATH434 preferred by physicians

Source: Survey of U.S. neurologists, updated 2023

Alpha-Synuclein and Iron in Health

α-Synuclein protein

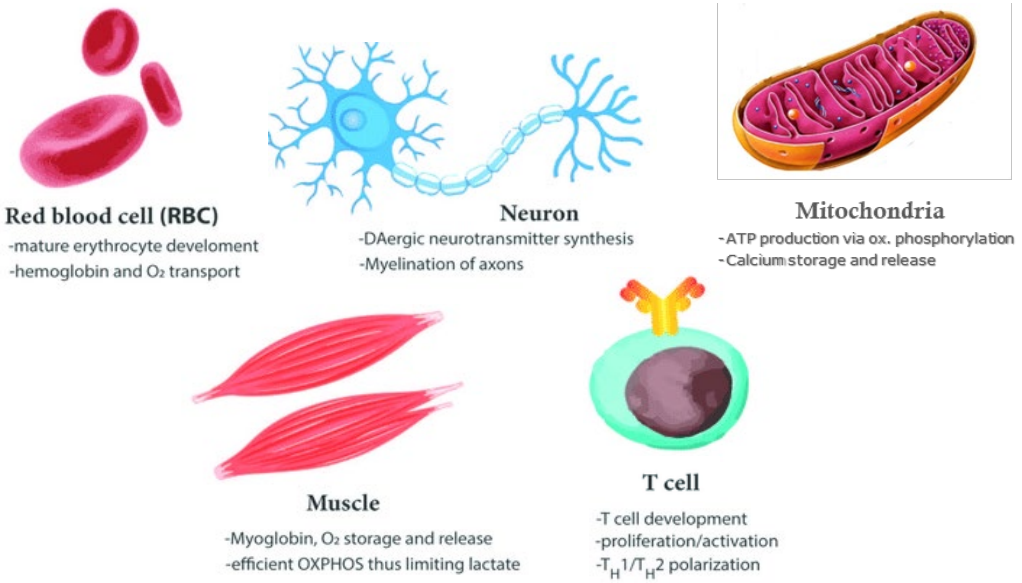
- Critical for normal function of neurons
- Enables nerves to communicate with each other via neurotransmitters



α-Synuclein

Iron is Essential for Life

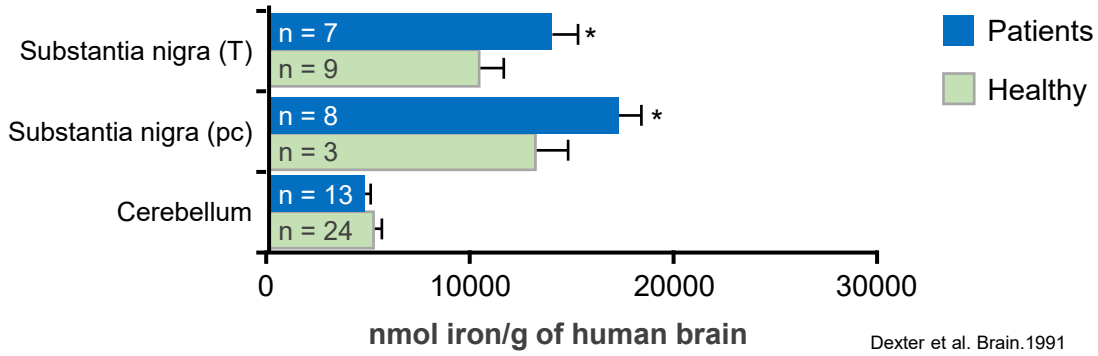
- Red blood cell production, oxygen transport
- Neurotransmitter synthesis in neurons
- Energy production via ATP and activity of many enzymes



Sources: Ritchie et al, 2012; DOI:10.4236/health.2012.431175; Cronin et al, 2019, doi.org/10.3389/fmolb.2019.00116

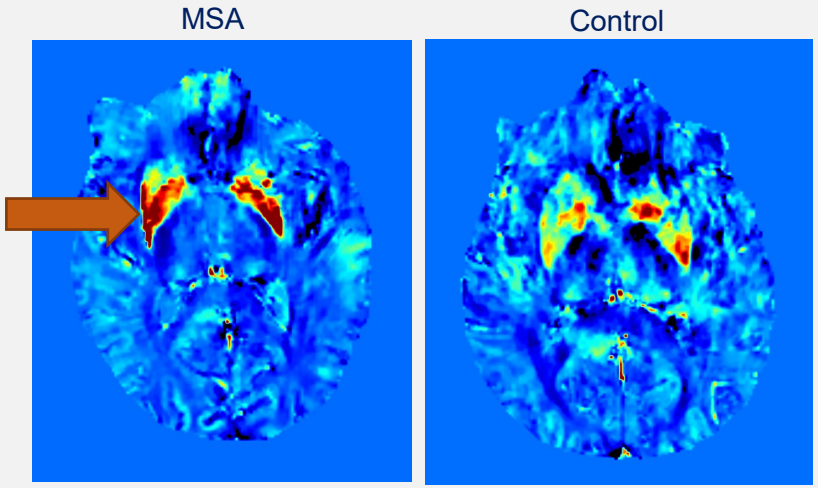
Increased Brain Iron in Parkinson's Disease and Multiple System Atrophy

Parkinson's disease



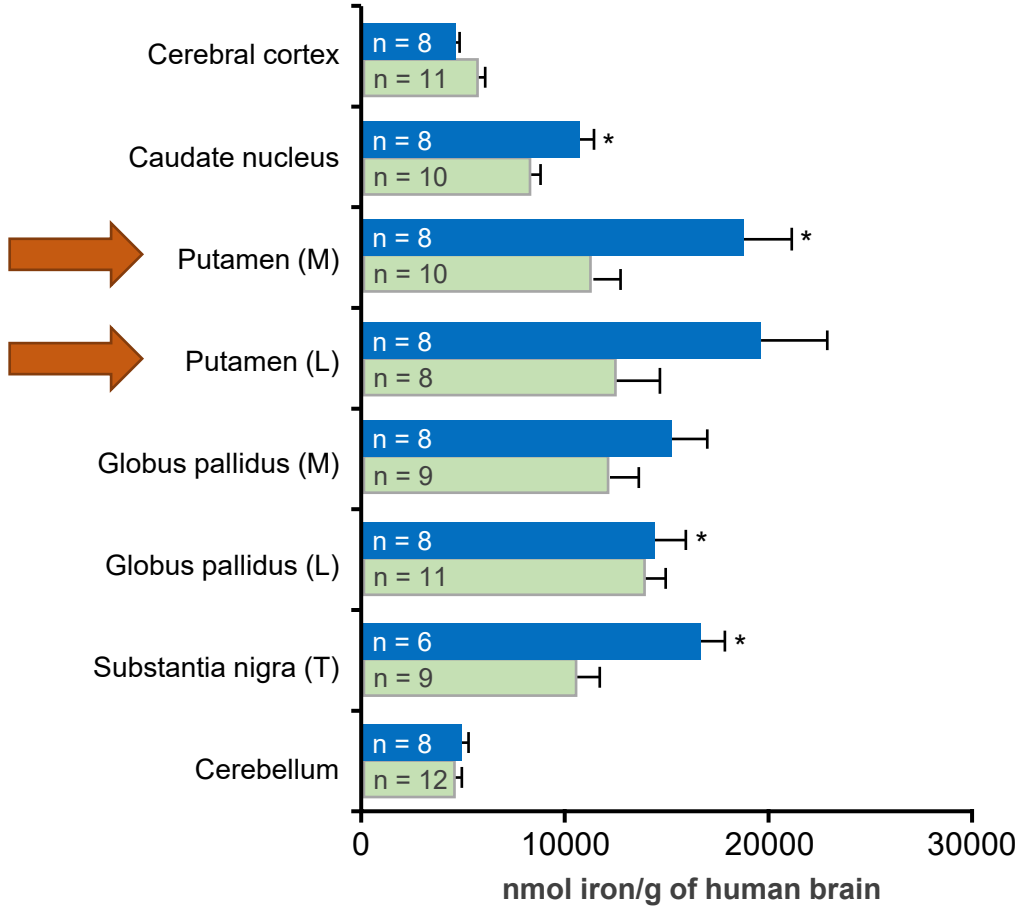
Dexter et al. Brain.1991

Advanced Quantitative MRI to measure brain iron

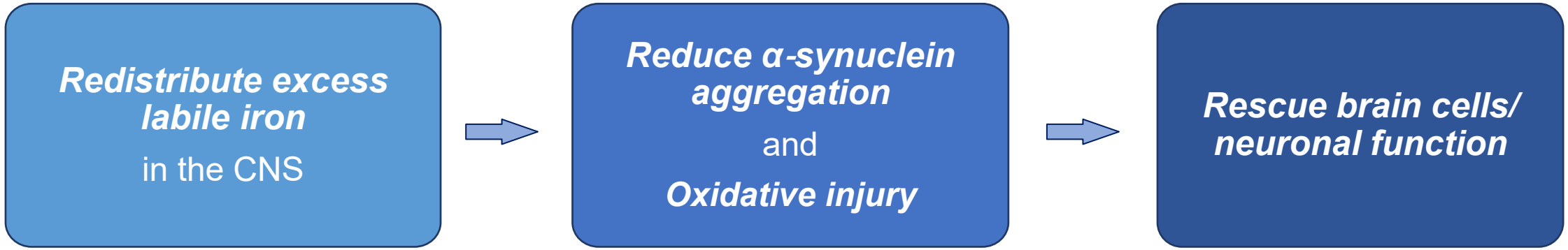


Courtesy of P. Trujillo, D. Claassen

Multiple System Atrophy



Treatment Approach: Address Underlying Pathology

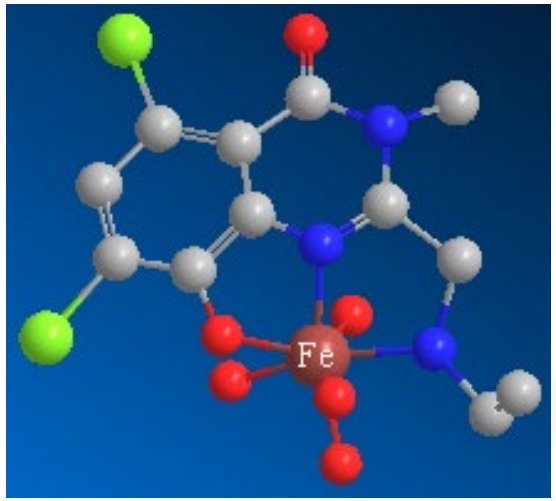


Potential Disease Modifying Therapy for MSA

ATH434: Potential Disease Modifying Therapy

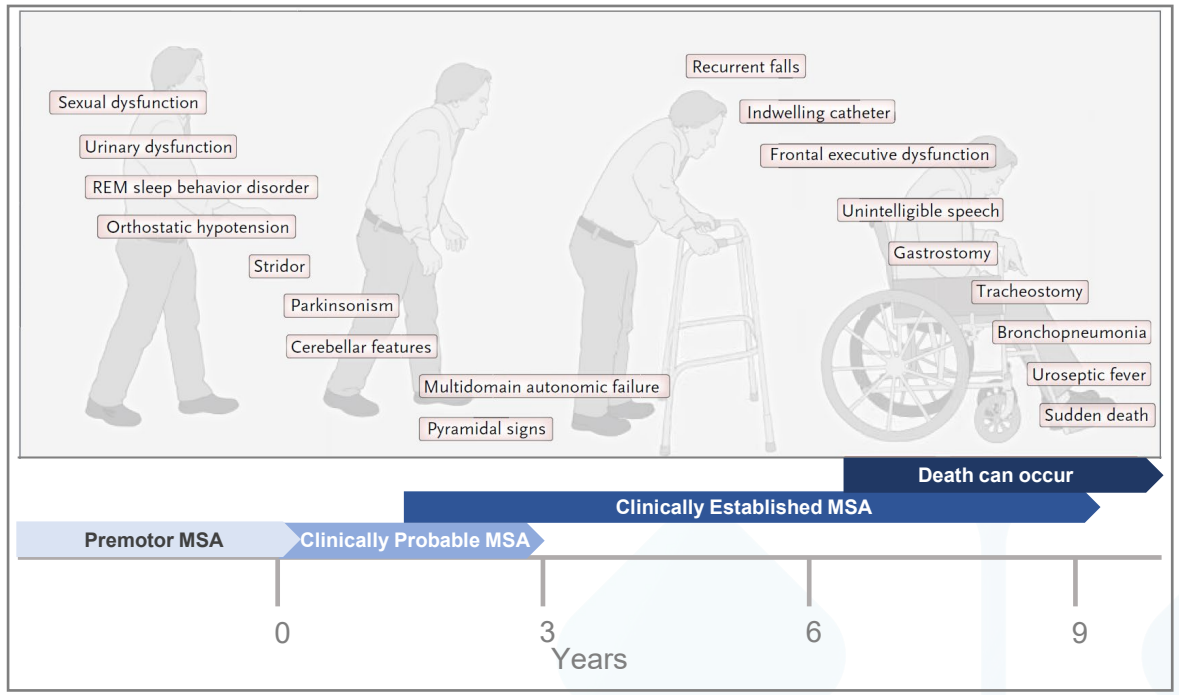
- Small molecule drug candidate
  - Decreases pathologic protein aggregation (α-synuclein) in CNS
  - Iron chaperone: redistributes excess labile iron in CNS
- Oral medication
  - Preferred over infusions and injections
- Potential to treat iron-related neurodegenerative disease
- Orphan Drug Designation in the US and EU for MSA treatment
- Development pathway endorsed by FDA and EMA

ATH434 binding to iron



Multiple System Atrophy (MSA): Rare, Highly Debilitating and Rapidly Progressive Neurodegenerative Disease

- Parkinsonian disorder with no approved treatment
- Orphan disease: up to 50,000 patients in U.S.
- Disease characteristics
  - Motor: Parkinsonism, uncoordinated movements, balance problems and falls
  - Autonomic dysfunction: blood pressure maintenance, bladder control, bowel function
  - Brain atrophy and α-synuclein accumulation in multiple regions
- Over 50% require wheelchair in 5 years
- Median survival 7.5 years after symptom onset



Sources: Fanciulli, Wenning. NEJM 2015 | Wenning, et al. Mov Disorders 2022 | Coon, et al. Brain 2015 | Claassen,et al. Mov Disorders 2021 | Multiple System Atrophy: National Institute of Neurological Disorders and Stroke (nih.gov)

Ongoing Treatment Studies with ATH434

Study	ATH434-201 – Phase 2	ATH434-202 – Phase 2
Design	**Randomized, double-blind**	**Single arm, open-label**
Objectives	Efficacy and safety of ATH434	Efficacy and safety of ATH434
Population	**Early-stage MSA**	**Advanced MSA**
Sample Size	N = 77	N = 10
Treatment	12 months	12 months
Brain MRI Biomarkers	Iron, volume	Iron, volume, glial pathology
Fluid Biomarkers	NfL^, Aggregated α-synuclein	NfL^, Aggregated α-synuclein
Other Biomarkers	Wearable movement sensors	—
Clinical Measures	Motor exam, autonomic function, activities of daily living, global measures	Motor exam, autonomic function, activities of daily living, global measures

^NfL: Neurofilament light chain

ATH434-202 Interim Clinical Data Confirms Development Approach

Population: 10 with advanced MSA

Treatment: ATH434 75 mg bid

Assessment: 6 months

Safety: ATH434 well-tolerated and had no serious adverse events related to study drug

UMSARS: Unified MSA Rating Scale (Part I)
Activities of Daily Living Scale

- Group change (n=10)^ compares favorably to patients with similar disease severity*

Areas Assessed

• Speech	• Walking
• Swallowing	• Falling
• Handwriting	• Orthostatic symptoms
• Cutting food	• Urinary Function
• Dressing	• Sexual Function
• Hygiene	• Bowel Function

Global Impression of Change

- Overall rating from patient or clinician perspective

Clinical Responders

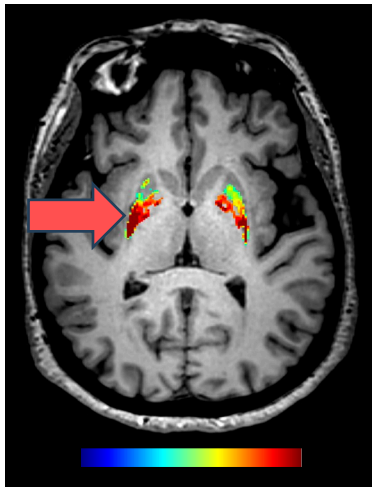
- 30% of participants showed stable or improved neurological symptoms, based on UMSARS I and Global Impression of change scores

^ Claassen. Mov. Disord. 2024.

* Wenning. Lancet Neurol 2013;12: 264–74.

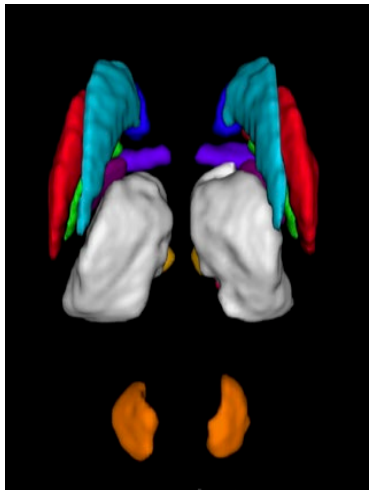
ATH434-202 Interim Biomarker Data Support Clinical Observations

Brain Iron



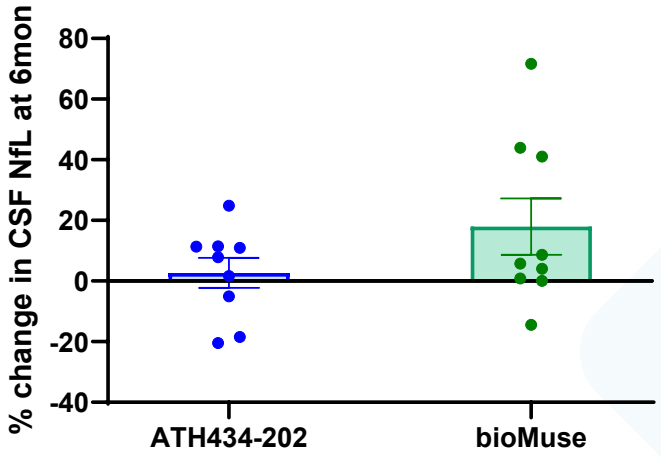
Iron content was stable in the s. nigra, putamen and globus pallidus over 12 mo in clinical responders

Brain Volume



Brain volume stable between 6 and 12 mo in clinical responders

Neuronal Injury Marker

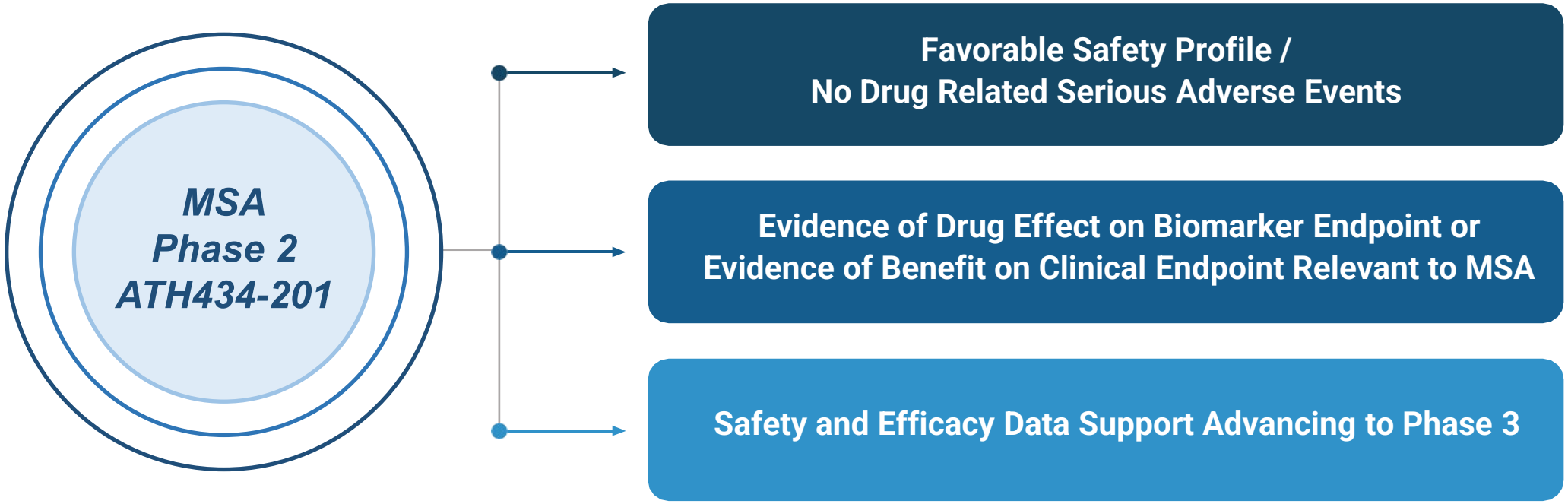


Mean levels of NfL, a marker of neuronal injury only ↑2.7% in ATH434-patients compared to ↑17.9% in untreated patients (bioMUSE)

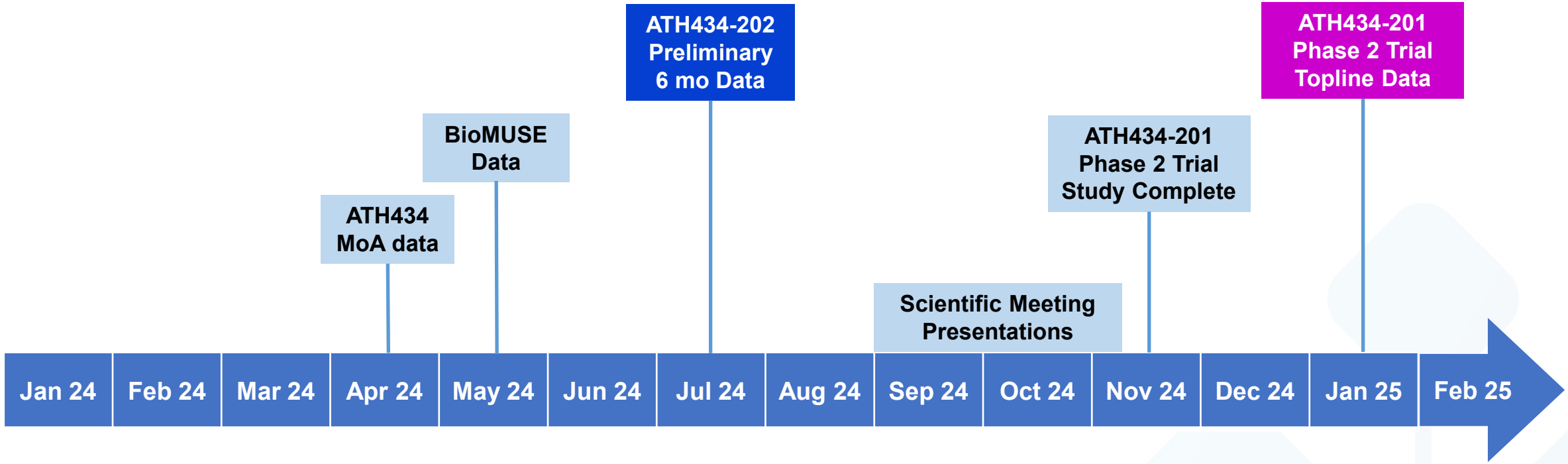
Participants who stabilized or improved had less advanced disease

MRI data at 6 months (n=10) and 12 months (n=3)
NfL (neurofilament light chain) data at 6 months.

Target Measures for Success



Key Milestones



Alterity: Poised for Progress

- Targeting Orphan disease with no approved treatments
- Natural History Study de-risked Phase 2
- Positive interim data in open label study confirms clinical development approach
- Phase 2 double-blind data expected in January 2025
- Development team with multiple FDA approvals
- Cash balance of AU$9.28M as of 30 Sept 2024

Catalysts

MSA Natural History Study

- ✓ H1 2024: Present new biomarker data

ATH434-201 Phase 2 Double-Blind Trial

- ✓ Nov 2023: Enrollment Complete
- Nov 2024: Study Complete
- Jan 2025: Topline Data

ATH434-202 Phase 2 Open label Trial

- ✓ Jul 2024: Preliminary 6-mo Data
- H1 2025: 12-month Data

Alterity THERAPEUTICS

ASX:ATH | NASDAQ:ATHE