Corporate Presentation

Alterity THERAPEUTICS

May 2026

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 2025 Form 20-F, filed with US Securities and Exchange Commission, in particular Item 3, Section D, titled “Risk Factors.”

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THERAPEUTICS

Alterity is a late clinical stage biopharmaceutical company dedicated to developing treatments for neurodegenerative diseases

- Alterity means the state of being different
- Our goal is to slow the course of disease progression
- We strive to create an alternate future and improve patient quality of life

Redefining Neurodegenerative Disease Therapy

A Potential First-in-Class, Disease-Modifying Therapy for Multiple System Atrophy (MSA)

Compelling Phase 2 Efficacy on FDA-Endorsed Endpoint

Up to 48% slowing of disease progression v. placebo ($p<0.05$) on FDA-endorsed endpoint*

Favorable safety profile with no drug-related serious adverse events

Unmet Need with Significant Commercial Potential

MSA is a rare, rapidly progressive disease (up to 50,000 U.S. patients)

Independent assessment supports ~$US2.4B global peak sales opportunity in MSA

Differentiated, Disease-Modifying Approach for MSA

Oral iron chaperone ATH434 targets excess reactive iron and α-synucleinopathies

Blood brain barrier penetrant small molecule

Pivotal Advancement in 2026 with Clear Regulatory Path

End-of-Phase 2 FDA meeting planned for mid-2026 to align on Phase 3 design

Veteran development team with 3 FDA approvals in Neurology area

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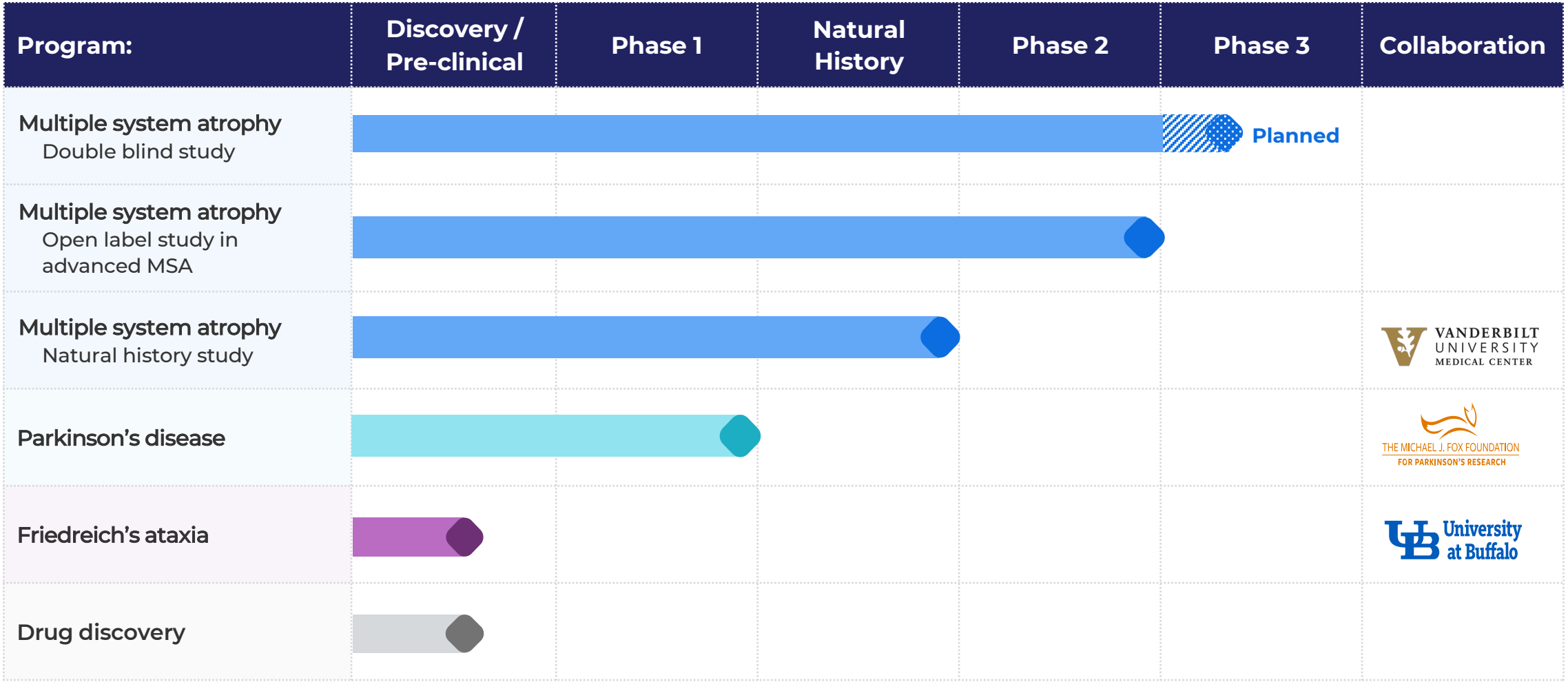
*modified Unified MSA Rating Scale Part 1 (mUMSARS)

Broad opportunity for ATH434 in neurodegenerative disease



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Multiple System Atrophy (MSA): Parkinsonian disorder with no approved treatment

Rapidly progressive
Highly debilitating

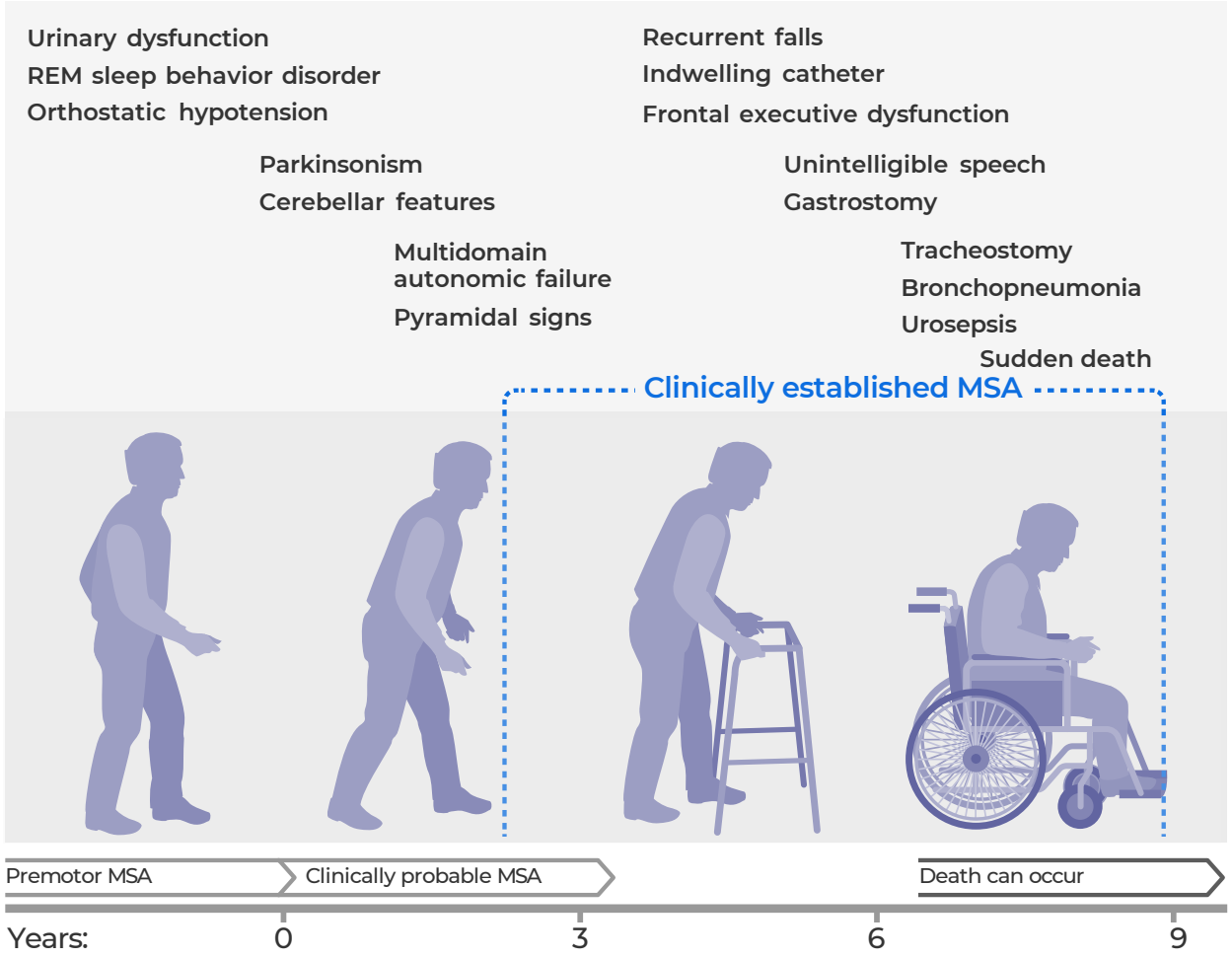
Up to 50,000
patients in U.S.

Disease characteristics:

- Motor: Parkinsonism, uncoordinated movements, balance problems, falls
- Autonomic dysfunction: blood pressure maintenance, bladder control, bowel function
- Atrophy and α-synuclein accumulation in multiple brain regions

Over 50%
require wheelchair in 5 years

7.5 years
median survival after symptom onset



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

Targeting the pathology in Parkinsonian disorders

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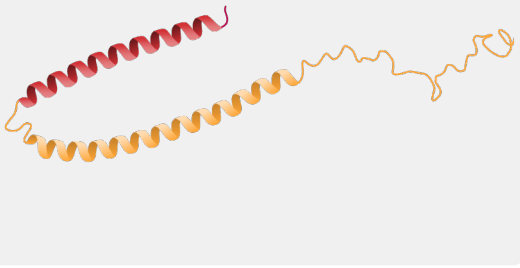
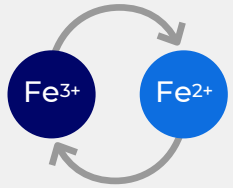
Targeting key players in MSA pathology
Alpha-synuclein and iron balance in health and disease



α-Synuclein protein

- Present in all neurons
- Enables neuronal communication

In disease: *α-Synuclein aggregates in neurons in MSA impairing communication and leading to dysfunction*



Fe^{2+} Reactive
Fe^{3+} Stable

Two forms of iron required for cellular function

- Neurotransmitter synthesis (e.g., dopamine)
- Myelin synthesis (allows fast signal transmission)

In disease: *Excess reactive iron drives α-synuclein aggregation and oxidative injury*

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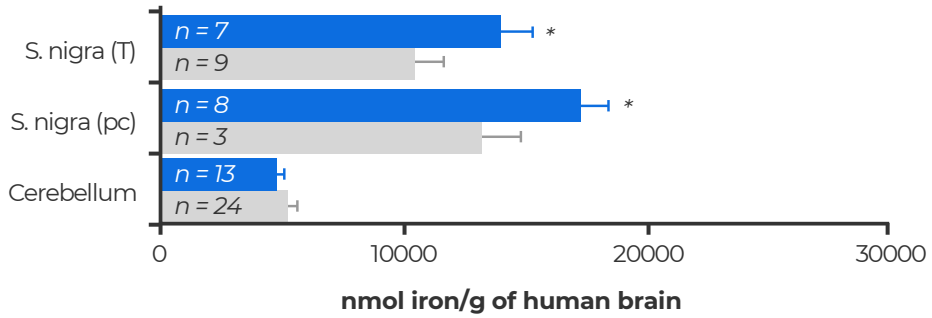
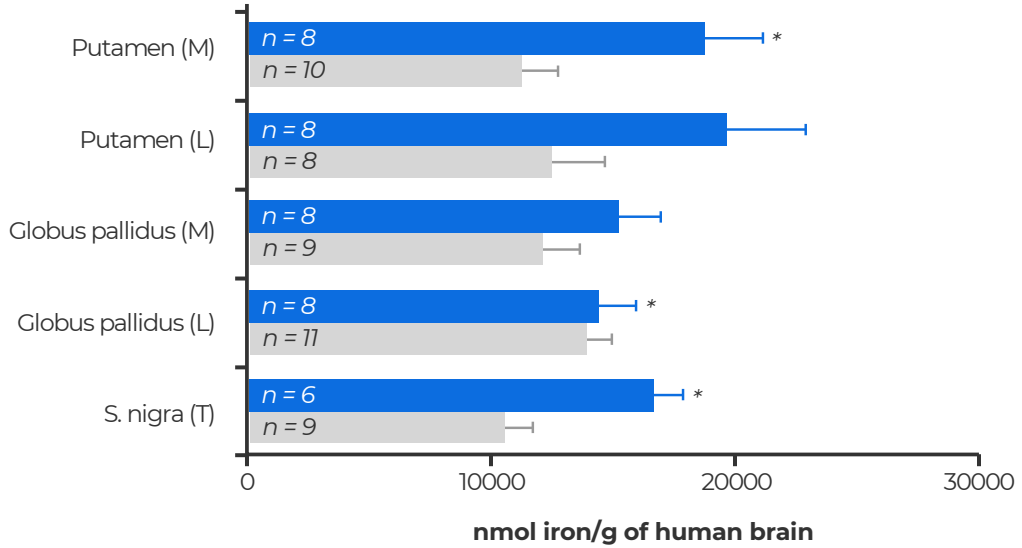
Pathology of Parkinsonian disorders

Increased Brain Iron in Areas of Pathology

Parkinson's disease



Multiple System Atrophy



Patients Healthy controls

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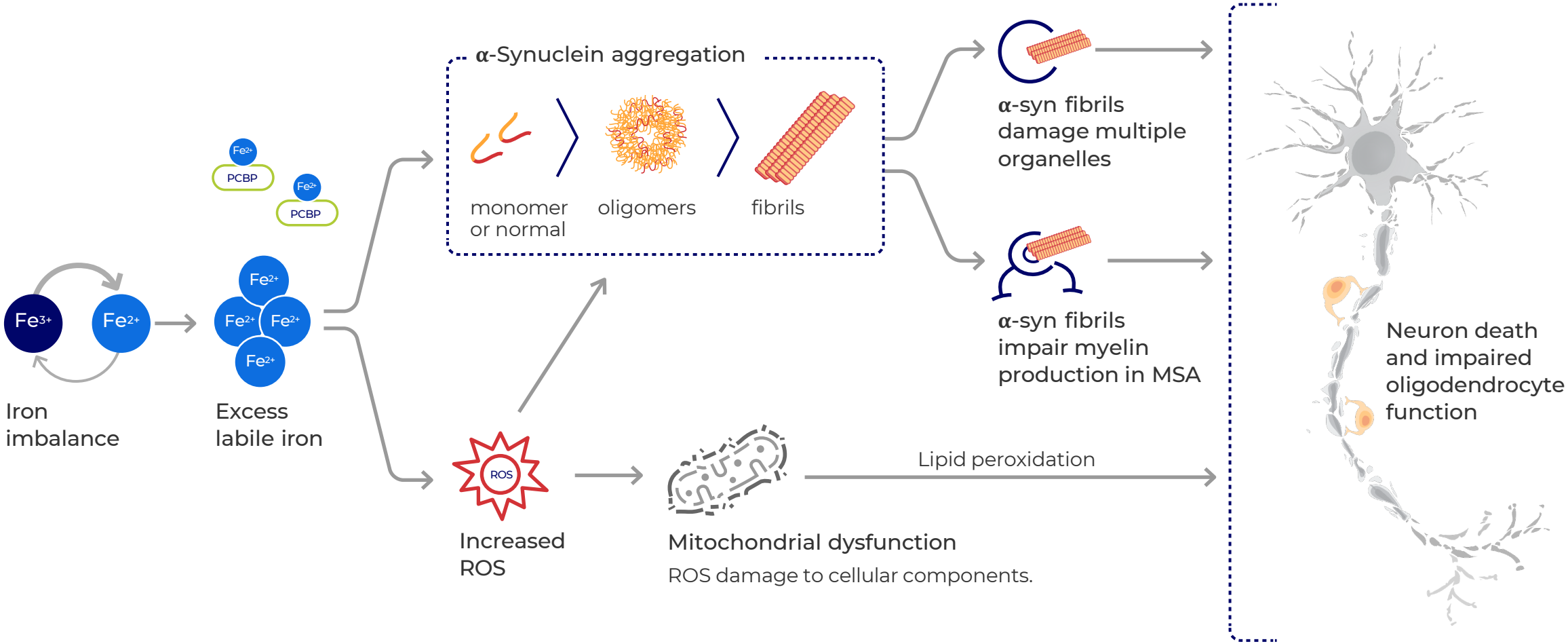
Dexter et al. Brain.1991

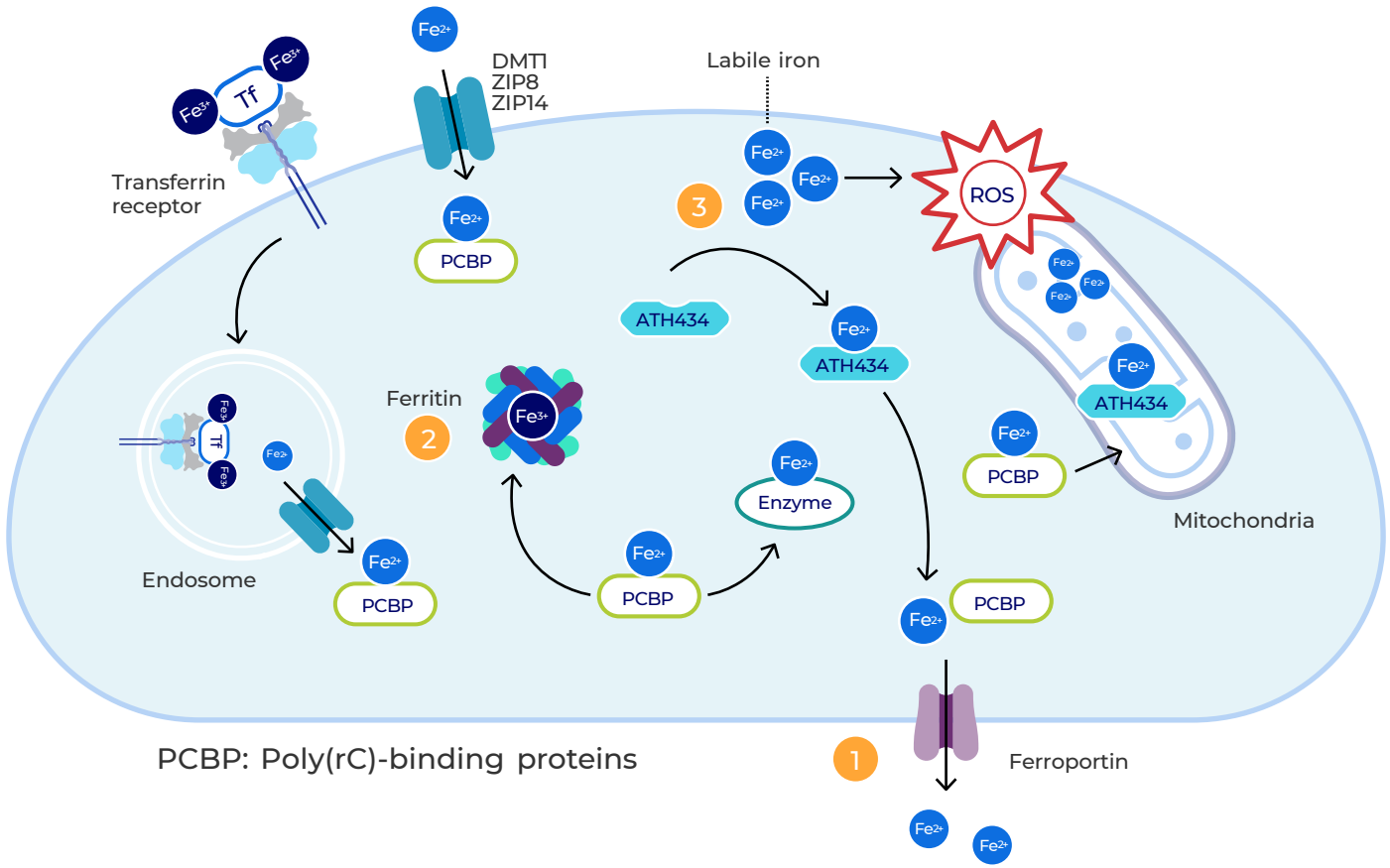
Excess labile iron is a key driver of pathology causing α-synuclein aggregation and oxidative injury



PCBP: Poly(rC)-binding proteins

ATH434 mechanism of action: Iron chaperone

ATH434 chaperones excess labile (reactive) iron to reduce neuronal injury



Fe^{2+} Reactive

Fe^{3+} Stable

Chaperone mechanisms:

1. Efflux iron from cell (ferroportin)
2. Increase iron storage (ferritin)
3. Buffering Fe^{2+} in labile iron pool

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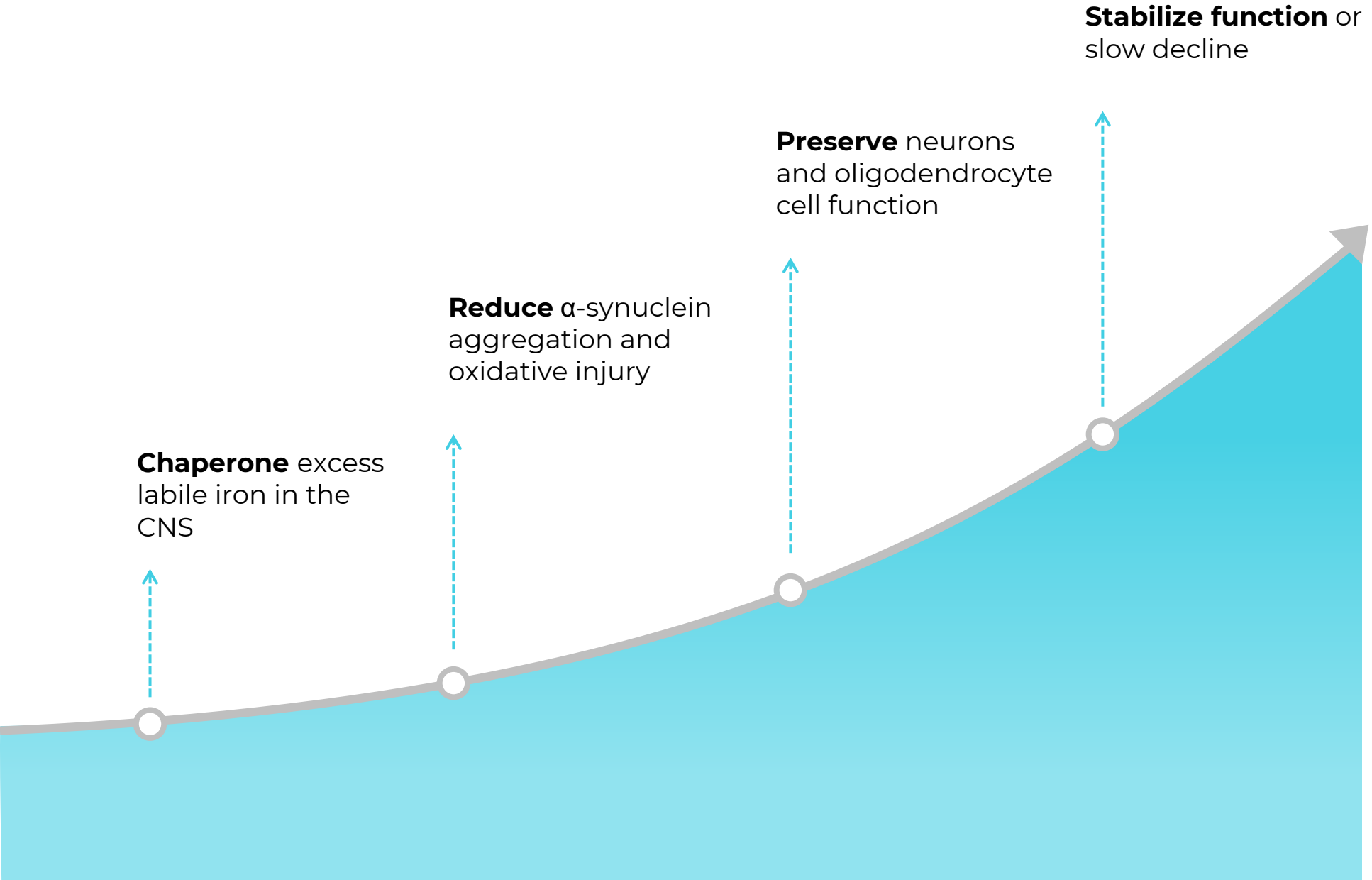
Sources: Adapted from Yanatori et al., BBA 2020 and Philpott et al., Frontiers Mol Bio. 2023 | Pall, et al. Metallomics, 2024.

Treatment approach: Address underlying pathology

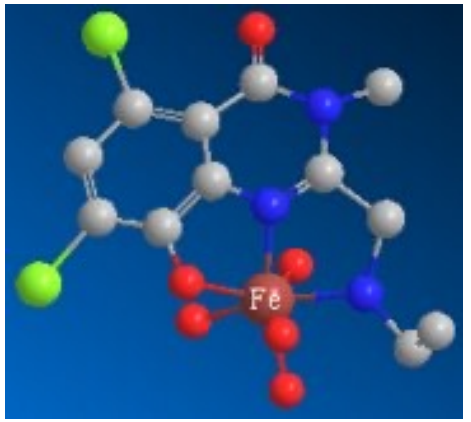


Based on mechanism of action, ATH434 is a potential disease modifying therapy

ATH434: Small molecule drug candidate

Oral administration	Preferred by patients and doctors vs infusions (IV, intrathecal) or injections
Blood-brain barrier penetrant	Acts intracellularly to address underlying pathology
Iron chaperone	Moderate binding affinity, redistributes excess labile iron in CNS
Broad treatment potential	Potential to treat many neurodegenerative diseases (e.g., Parkinson's, Friedreich Ataxia)
Orphan & Fast Track designations	US FDA Fast Track Designation and Orphan drug designation in U.S. and EU

ATH434 binding to labile iron



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Multiple models of neurodegenerative disease demonstrate ATH434 efficacy

Target Disease	Model	Midbrain iron (incl. s. nigra)	α-Synuclein	Preserve neurons/ function	Clinical observations
MSA[1]	PLP-α-syn	↓	↓	↑	Improved motor performance
MSA[2]	PLP-α-syn	↔ to ↓	↓	↑	Improved motor performance
Parkinson's	Monkey MPTP	↔ to ↓	n/a	↑	Improved motor performance
Parkinson's	Mouse MPTP	↓	↓	↑	Improved motor performance
Parkinson's	Mouse A53T	↓	↓	↑	Improved motor performance
Parkinson's	Mouse tau knockout	↓	↓	↑	Improved motor performance

↔ Stable

ATH434 consistently improved motor performance by reducing α-synuclein aggregation and preserving neurons

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Sources: Bradbury et al, Am Acad. Neurol 2024; Finkelstein, Acta Neuropath Comm 2017; Beauchamp et al, Neurotherapeutics 2022; [1] Heras-Garvin et al, Mov Disord. 2021; [2] Finkelstein et al, J Park Dis 2022

ATH434 clinical development program in MSA

Diligent approach to de-risk development program

Natural History Study

bioMUSE

- Observational study in 21 participants with clinically probable MSA
- Designed to de-risk clinical development program
- Identify biomarkers to improve accuracy of patient selection

Phase 2

ATH434-201

Randomized double-blind placebo-controlled trial

Results: clinically meaningful efficacy on MSA rating scale, measures of orthostatic hypotension, disease severity

ATH434-202

Open label trial in advanced MSA patients

Results: showed improved neurological symptoms in more advanced patients and favorable safety

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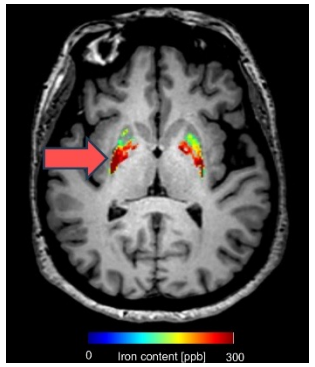
*Biomarkers of progression in Multiple System Atrophy (bioMUSE).; Biomarkers: Biomarkers:; MRI, Fluid, Digital

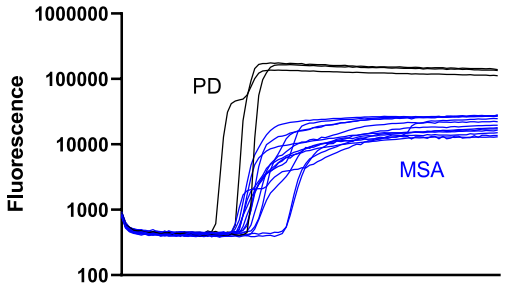
BioMUSE natural history study results

Optimized patient selection in Phase 2 trials

Advanced MRI methods



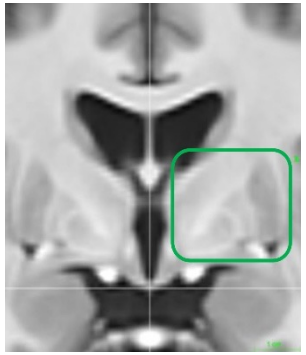
α-synuclein SAA in CSF



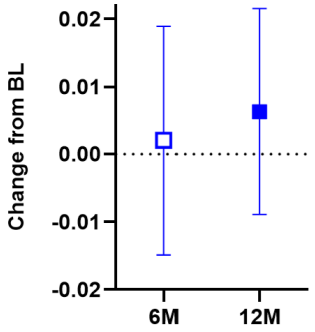
- Identified ”iron signature” of early MSA
- Differentiated MSA from Parkinson’s disease (PD)
- Revised selection criteria in ATH434-201 and ATH434-202 protocols to exclude PD patients

Precision biomarker assessment

Structural mapping



Iron content in pallidum



- Improved precision of volume measurements
- Novel strategies for measuring brain iron in individual regions
- State of the art methods enabled precise measurements of brain iron and volume with MRI

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Sources: Presentations/Posters on file, including Claassen et al, MDS Conference 2021 and 2022.

ATH434-201: Randomized, double-blind, placebo-controlled study

Patient criteria:

N = 77

- Clinical diagnosis of MSA
- Motor symptoms ≤4 years
- No severe impairment
- Elevated brain iron on MRI
- Elevated plasma NfL

Study design:

1 : 1 : 1

- **ATH434** **75 mg** twice daily
- **ATH434** **50 mg** twice daily
- **Placebo twice daily**

12 months treatment

Endpoints:

Key clinical endpoint:
MSA Rating Scale

Additional secondary endpoints:
CGI-S, OHSA, Wearable Sensors, Safety

Key biomarker endpoint:
brain iron content by MRI

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MRI - Magnetic Resonance Imaging; **UMSARS -** Unified MSA Rating Scale (UMSARS) Scale– measures activities of daily living
CGI-S - Clinical Global Impression-Severity scale; **OHSA** - Orthostatic Hypotension Symptom Assessment

Importance of the Unified MSA Rating Scale Part I (UMSARS I)

UMSARS Part I Items:

- Speech
- Swallowing
- Handwriting
- Cutting food
- Dressing
- Hygiene
- Walking
- Falling
- Orthostatic symptoms
- Urinary function
- Bowel function
- Sexual function^

Rated from 0 to 48
higher scores worse

Validated rating scale to assess MSA disease severity

Rates functional impairment in domains affected in MSA

UMSARS is the FDA endorsed endpoint to support approval for the treatment of MSA

Proposed primary endpoint in Phase 3

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^ Modified version of UMSARS I excludes sexual function item

Baseline characteristics

	Placebo N=22	ATH434-201 50 mg twice daily N=25	ATH434-201 75 mg twice daily N=24
Age (y)	61.3 (6.6)	63.1 (6.1)	63.9 (6.7)
Gender (% male)	63.6%	52.0%	62.5%
Duration of motor symptoms (y)	2.5 (0.8)	2.6 (0.8)	2.3 (0.9)
Modified UMSARS I	16.9 (3.9)	15.2 (5.4)	14.4 (4.4)
Motor score of Parkinson plus scale[1]	57.6 (14.2)	47.8 (18.4)	48.9 (16.8)
Plasma NfL (pg/mL)	34.9 (12.5)	31.1 (9.1)	32.3 (9.0)
CSF aggregating α-syn SAA (+)	91%	92%	96%
OH symptom assessment	13.5 (9.8)	13.8 (13.2)	15.0 (12.2)
Clinical phenotype: MSA-P (%)	59.1%	60.0%	70.8%
Severe orthostatic hypotension	4.5%	4.0%	29.2% ↑

Groups balanced at baseline except for severe orthostatic hypotension – a predictor of rapid disease progression

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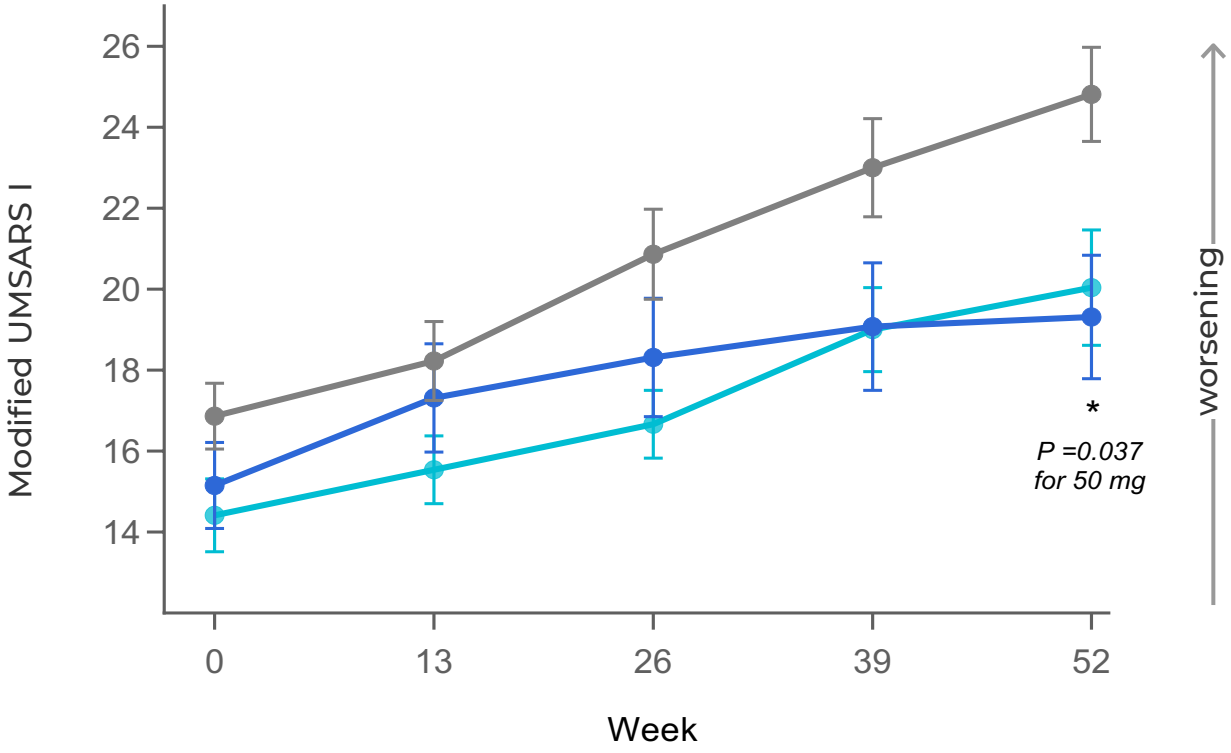
Clinical Analysis Population

[1] Payan et al. PlosOne 2011

Clinically Significant Efficacy on Modified UMSARS Part I

Change from Baseline to Week 52



	Difference v. placebo LS mean (SE)	Relative treatment effect
Placebo N=22		
ATH434 50 mg N=25	**-3.7 (1.7)**	**46%**
ATH434 75 mg N=24	**-2.7 (1.8)**	**34%**

Minimal clinically important difference (MCID) on UMSARS I = *– 1.5 points*

Relative Treatment Effect:

$$\frac{\text{Change}_{\text{ATH434}} - \text{Change}_{\text{Placebo}}}{\text{Change}_{\text{Placebo}}}$$

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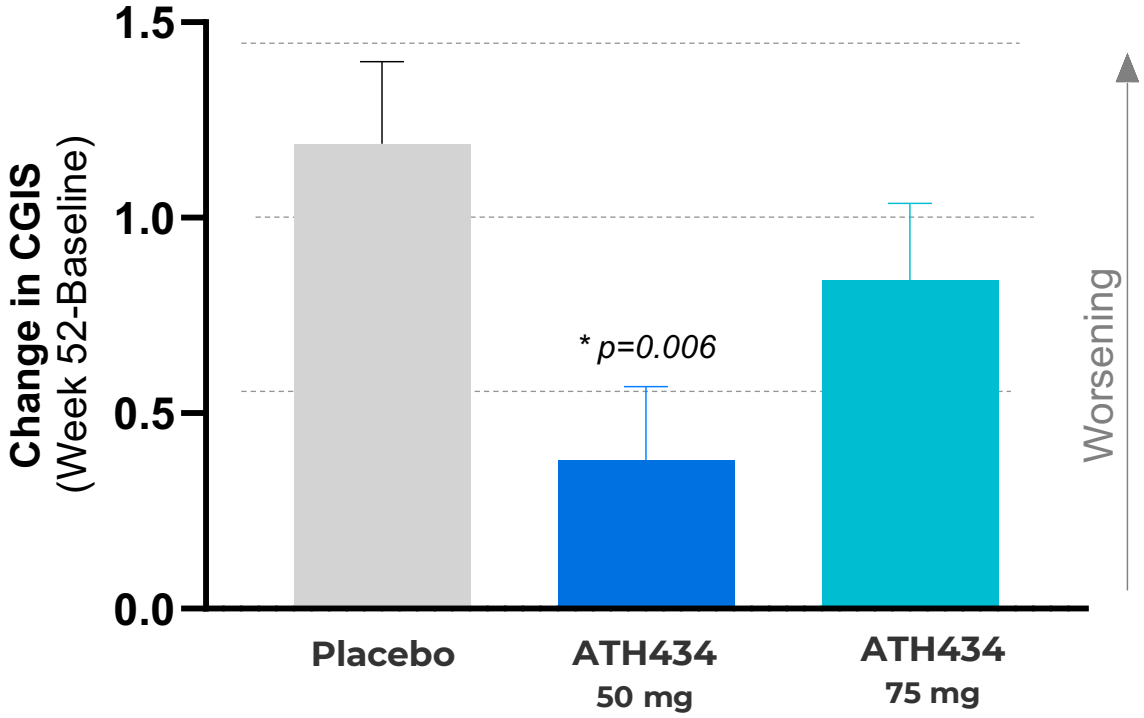
Clinical Analysis Population, incl CSF NfL as covariate

Efficacy on Clinical Global Impression of Severity (CGI-S) scale
Change from baseline to week 52



LS mean (SE)

- CGI-S
  - 7-point scale
  - higher score indicates a worse outcome
- Assesses total picture over prior 28 days
  - illness severity, impact of illness on function, level of distress and any other aspects of impairment

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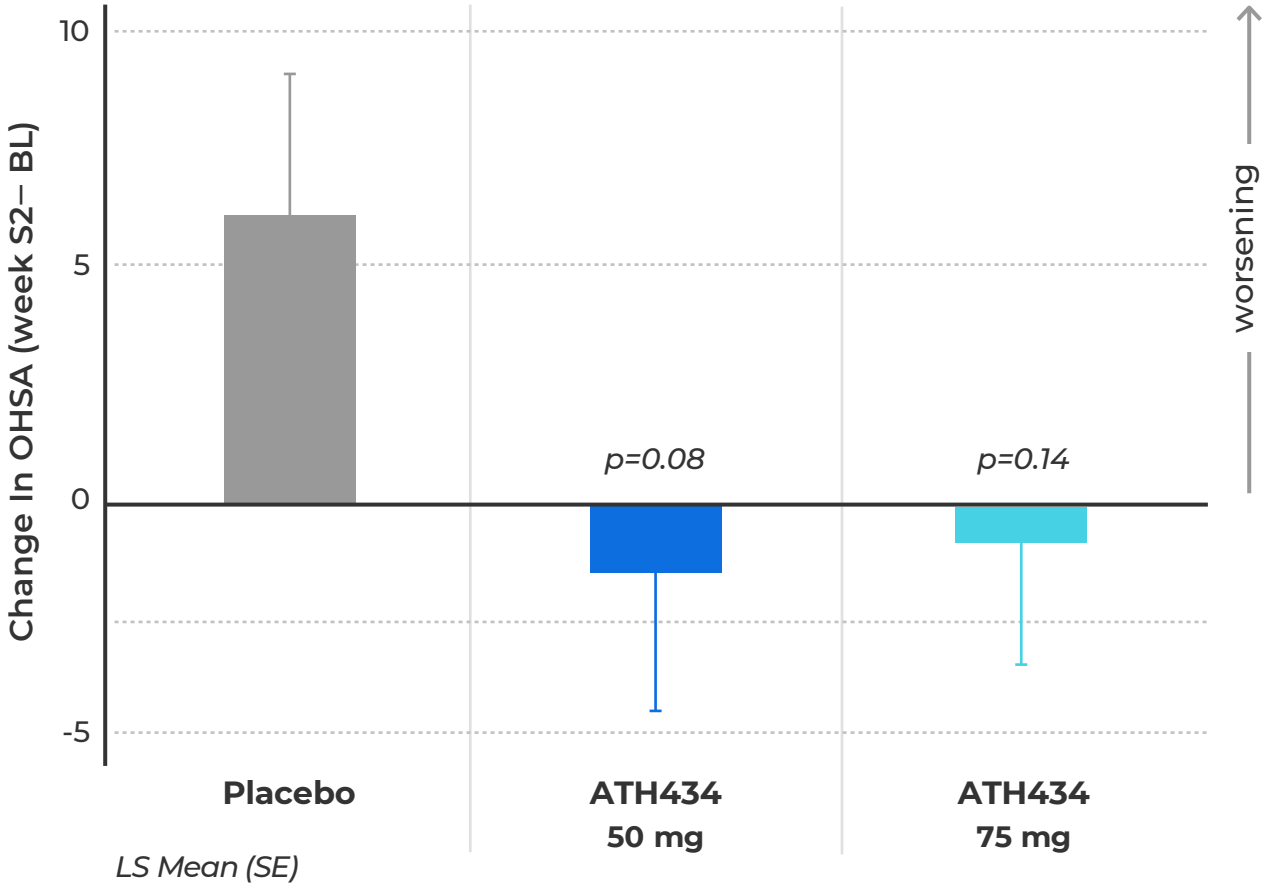
Clinical Analysis Population, incl CSF NfL as covariate

Orthostatic Hypotension Symptom Assessment (OHSA)
Change from baseline to week 52



- Assesses symptoms of low blood pressure when going from sitting to standing (e.g., dizziness / feeling faint / lightheadedness)
- Patient reported outcome

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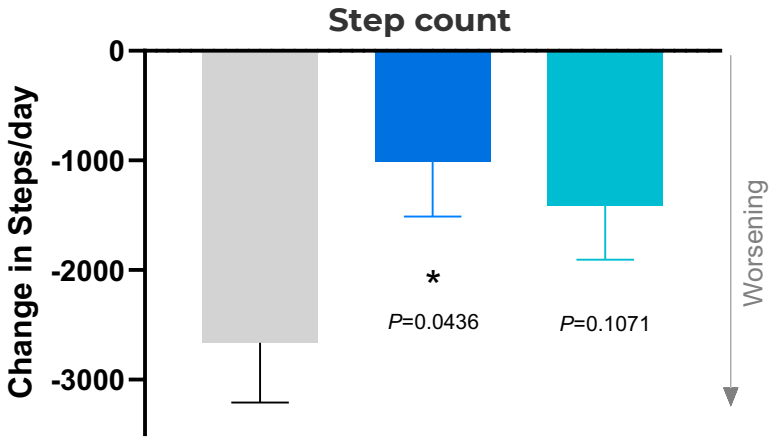
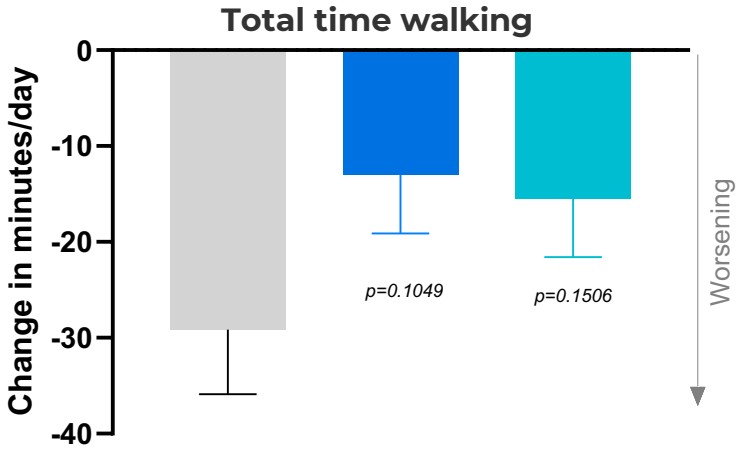
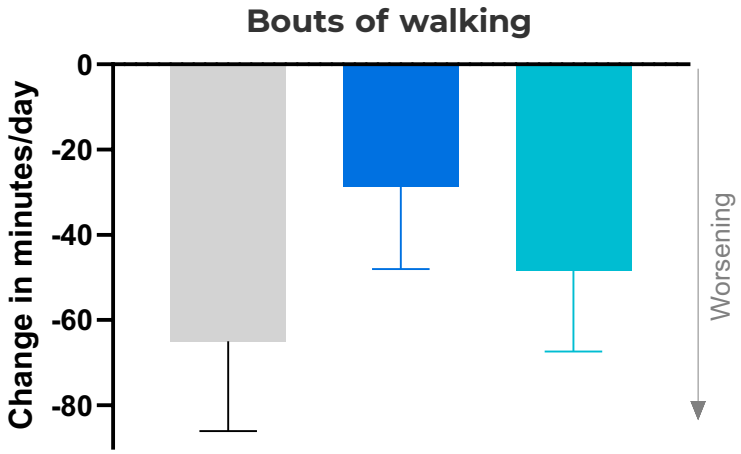
Clinical Analysis Population

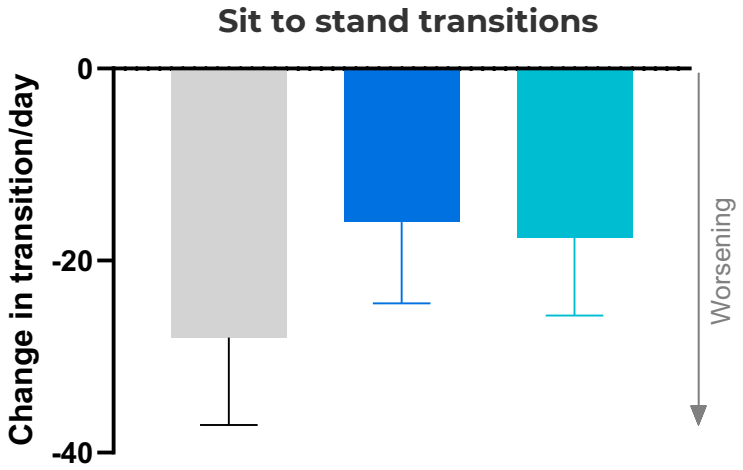
Kaufmann, et al. Clin Auton Res 2012..

ATH434 preserved walking in outpatient setting
Change from baseline to week 52







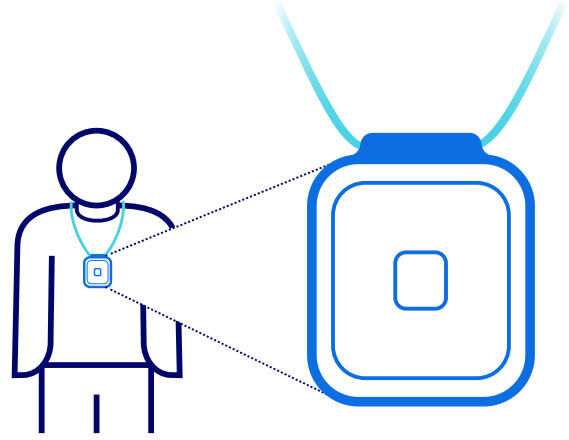


Placebo

ATH434-201
50 mg

ATH434-201
75 mg

Pendant
Wearable movement sensor



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Clinical Analysis Population, incl CSF NfL as covariate

Adverse Events

N (%) of subjects [1]	Placebo twice daily N=26	ATH434-201 50 mg N=25	ATH434-201 75 mg N=26
Any Adverse Event (AE)	24 (92.3%)	21 (84.0%)	25 (96.2%)
UTI	14 (53.8%)	10 (40.0%)	7 (26.9%)
Fall	8 (30.8%)	7 (28.0%)	8 (30.8%)
Covid-19	1 (3.8%)	6 (24.0%)	4 (15.4%)
Fatigue	2 (7.7%)	1 (4.0%)	5 (19.2%)
Back pain	1 (3.8%)	3 (12.0%)	2 (7.7%)
Severe AEs [2]	8 (30.8%)	3 (12.0%)	6 (23.1%)
Serious AEs [2]	10 (38.5%)	5 (20.0%)	7 (26.9%)

- **Similar rates of AEs in ATH434 and placebo participants**
- **No severe or serious AEs related to study drug**
- **No hematologic side effects**

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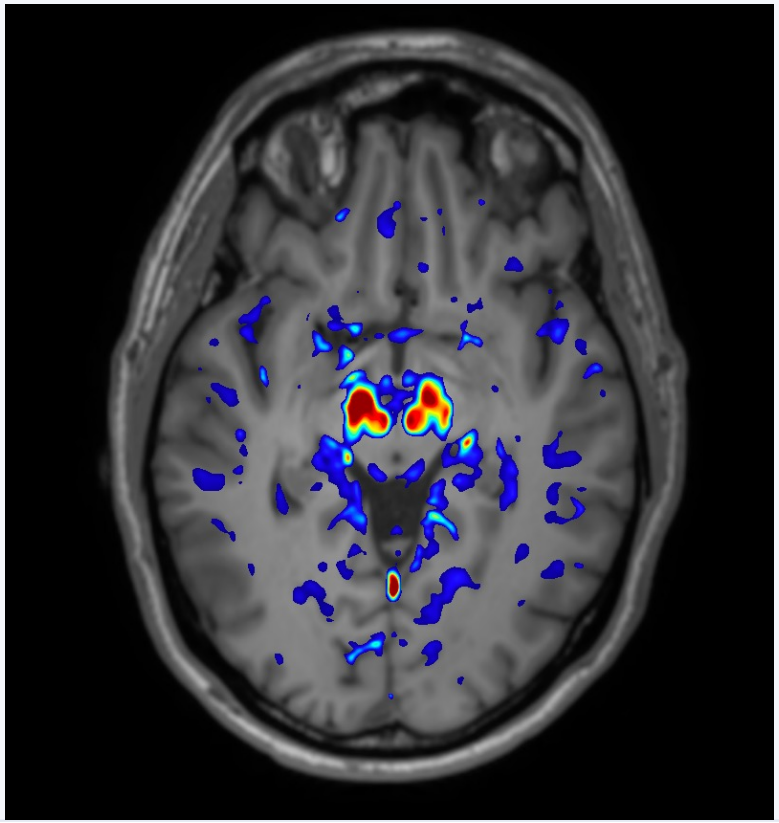
1 - Reporting one or more event
2 - None related to Study Drug

Neuroimaging

Measuring Iron Content with MRI (QSM)
Regional increases in iron in MSA Patient

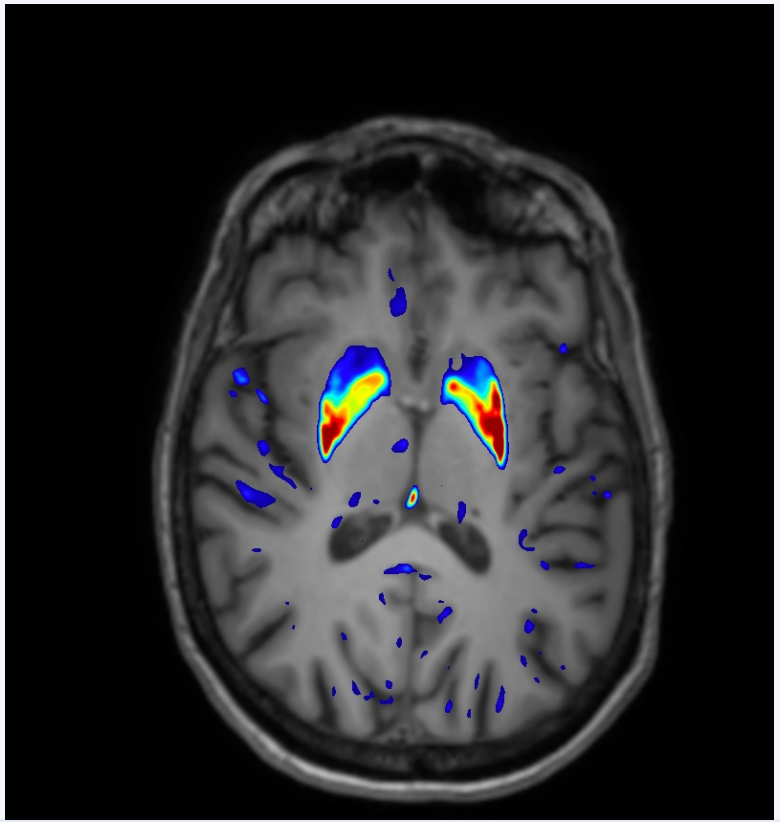
Substantia Nigra

Midbrain axial view



Putamen / Globus Pallidus

Basal ganglia axial view



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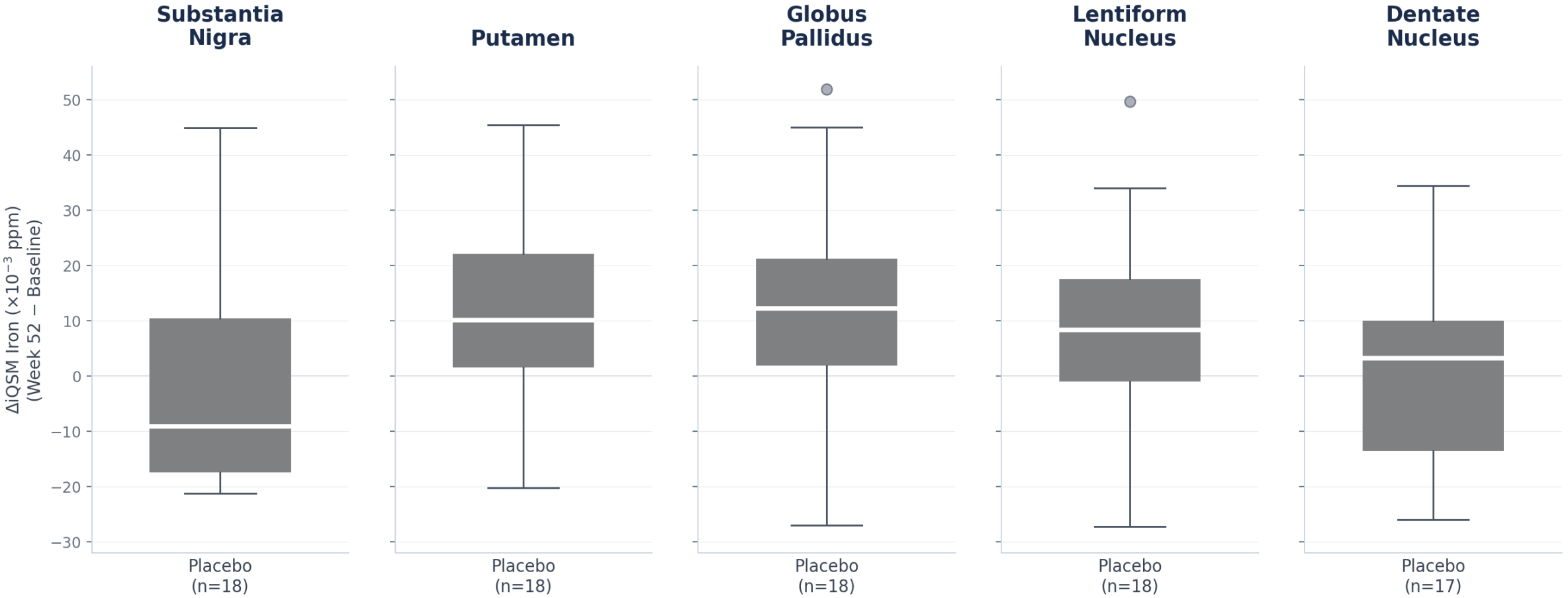
QSM: Quantitative Susceptibility Mapping I *QSM overlay: warm colors = higher magnetic susceptibility (iron content)*

Iron Deposition on MRI in Placebo: Change Baseline → Week 52
ATH434-201



Box: IQR · Line: median · Whiskers: 1.5×IQR · Points: outliers · mITT population

Mean ± 95% CI

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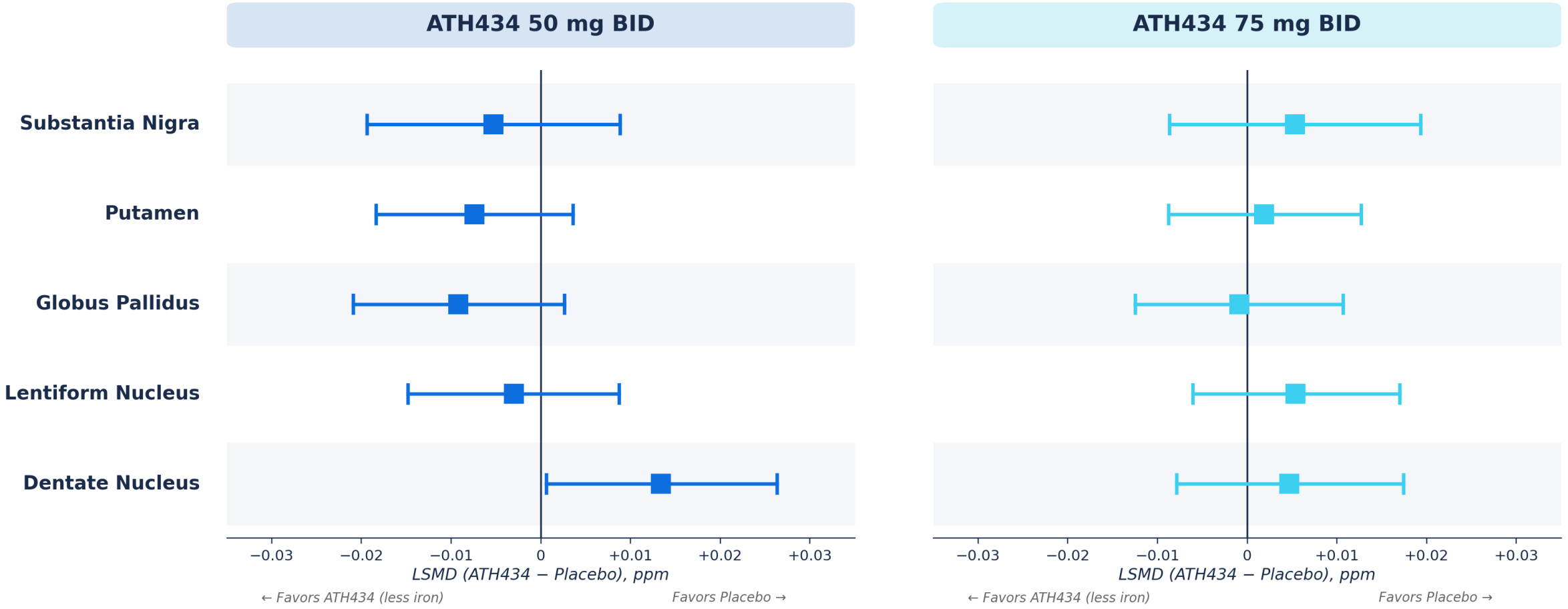
Iron Deposition on MRI: ATH434 vs. Placebo
ATH434-201



MMRM with sex, age, baseline CSF NfL, and baseline iron as covariates

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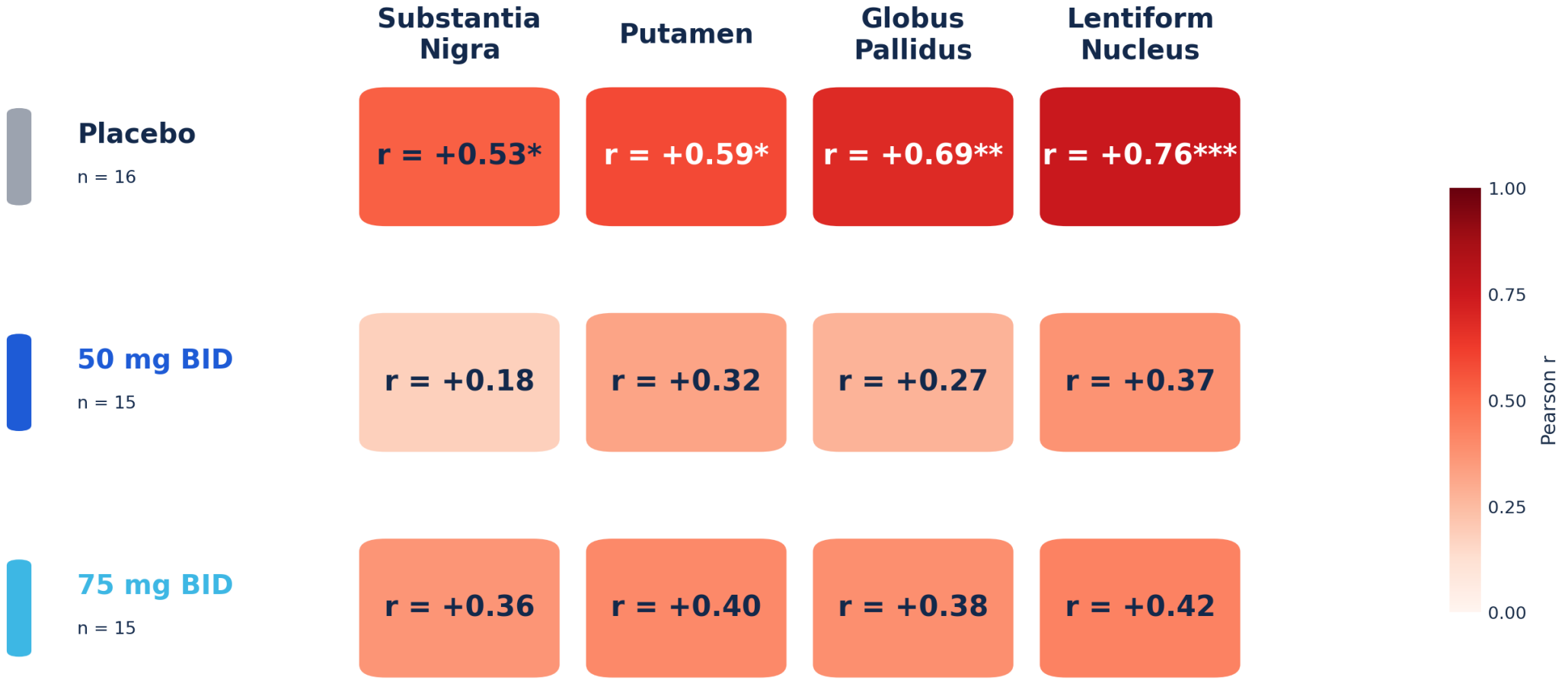
Correlation Between Change in Iron and Change in UMSARS I Score at Week 52

ATH434 decouples iron accumulation from clinical worsening



*† p<0.10 * p<0.05 ** p<0.01 *** p<0.001 | Residual partial correlation*

Controlling for Sex, Age, Baseline CSF NfL, Baseline QSM

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Summary: ATH434 Interrupts the Pathologic Process in MSA

- Iron accumulates in the basal ganglia of MSA patients, most prominently in the globus pallidus and putamen
- QSM allows quantitation of total brain iron but does not distinguish between reactive (toxic in excess) and stable forms of iron
- In placebo-treated patients, change in iron **strongly** correlates with change in disease severity
- In ATH434-treated patients, change in iron **weakly** correlates with change in disease severity
  - ATH434 leads to a **decoupling** of iron accumulation and clinical worsening as assessed by UMSARS I

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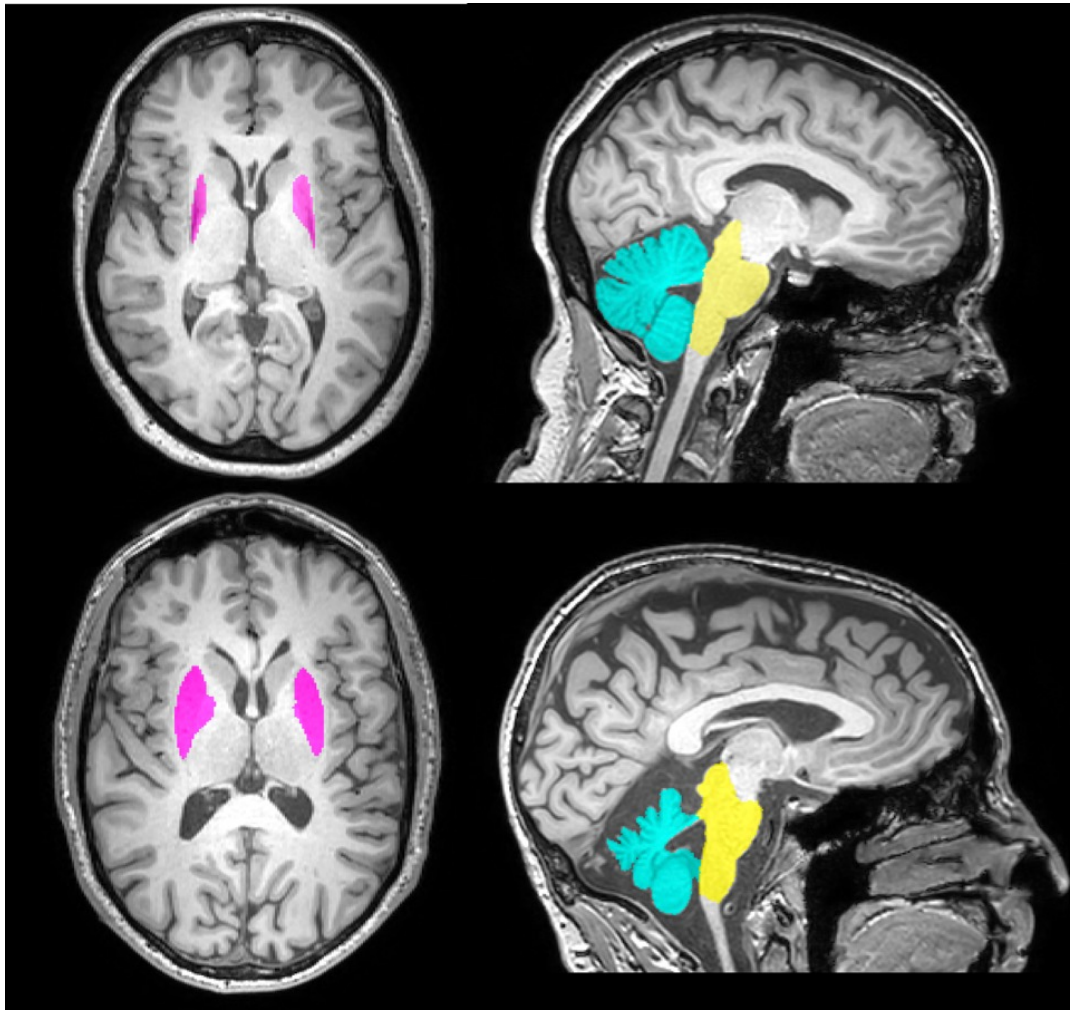
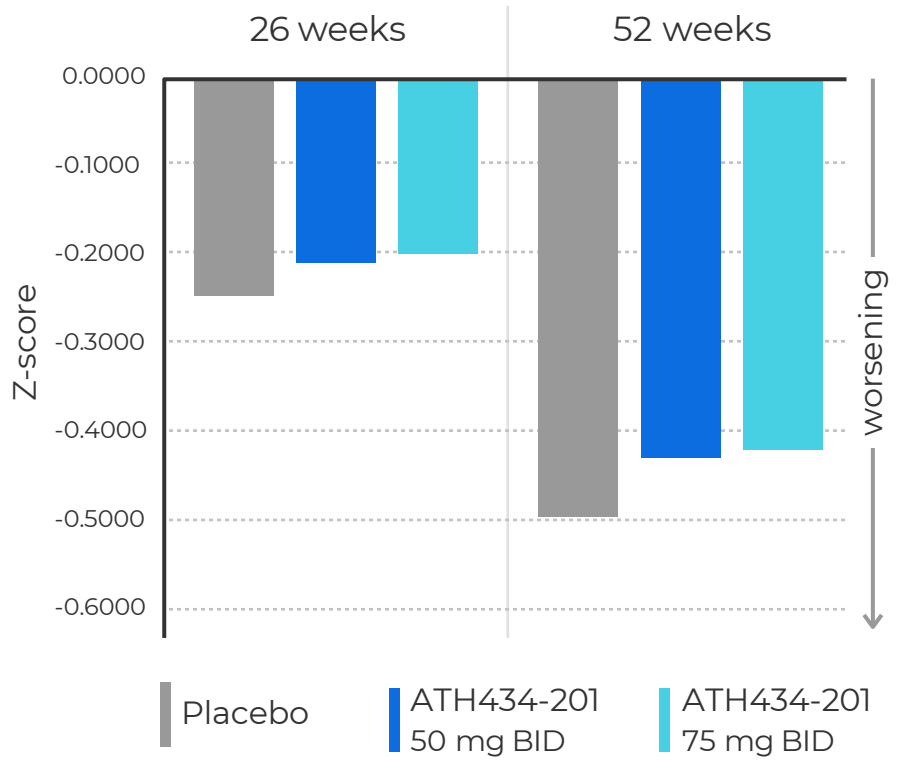
Measuring Brain Volume in MSA Regions of Interest

Subject 1

Subject 2



Change in Brain Volume*



ATH434 showed trends in preserving brain volume

* MSA Atrophy Index: composite z-score of putamen, GP, cerebellum and brainstem vs. healthy age-matched population

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ATH434-202: Open label study in advanced MSA

Design	Single arm, open-label
Objective	Assess safety and efficacy in advanced MSA
Population	Advanced MSA (n=10)
Treatment	ATH434 75 mg BID x 12 months
Brain MRI Biomarkers	Volume, Iron
Key Clinical Measure	UMSARS I

Outcomes:

- Comparable efficacy observed at same dose in double blind study
- No serious Adverse Events (AEs) related to study drug
- AEs consistent with underlying disease

The study indicates the potential of ATH434 to slow disease progression in advanced MSA

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[1] MSA affected areas by MSA-atrophy index. Trujillo, P. et al Annals of Clin and Trans Neuro, 2025
*ATH434-201 listed for comparative purposes, data are not from a head-to-head study

Carefully designed Phase 2 program demonstrates potential for ATH434 in MSA

ATH434 demonstrated clinically significant efficacy in slowing disease progression in MSA

- Both dose levels efficacious on UMSARS I and important secondary endpoints
- Demonstrated target engagement with reduced iron accumulation in MSA affected brain regions
- Stabilized orthostatic hypotension, one of the most challenging MSA symptoms to manage
- Preserved walking in outpatient setting as measured with objective digital biomarker
- Open-label trial showed comparable safety and efficacy in advanced MSA
- No safety signals and well-tolerated
  No serious AEs related to study drug

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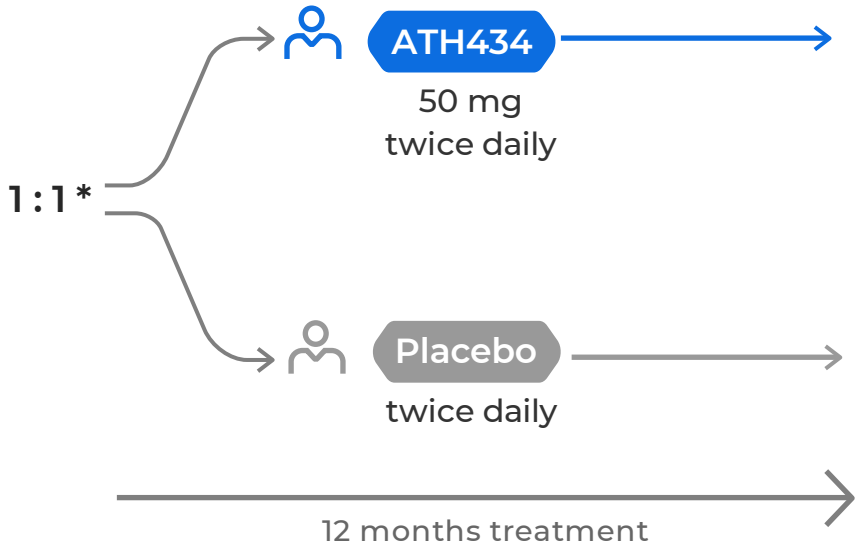
Proposed Phase 3 trial Design

Patient criteria:

N = ~200

- Clinical diagnosis of MSA
- Ambulatory without assistance
- No severe impairment
- Brain atrophy in MSA affected regions on MRI
- Elevated plasma NfL

Study design:



* Randomization stratified by screening plasma NfL

Efficacy Endpoints:

Primary endpoint
Modified UMSARS I
FDA endorsed clinical endpoint

Secondary endpoints
OHSA, Wearable Sensors,
Brain Volume by MRI

Efficacy Analysis
Includes baseline CSF NfL as covariate

Finalize Phase 3 program after end-of-Phase 2 FDA feedback and then initiate trial activities by YE 2026

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MRI - Magnetic Resonance Imaging; **UMSARS -** Unified MSA Rating Scale (UMSARS) Scale– measures activities of daily living
CGI-S - Clinical Global Impression-Severity scale; **OHSA** - Orthostatic Hypotension Symptom Assessment; **orthostatic SBP** – orthostatic systolic blood pressure

Commercial assessment & corporate overview

Independent commercial assessment in MSA

Target product profile based on positive Phase 2 data

Strong Intent to Prescribe

Over 70% of neurologists were “extremely likely” or “very likely’ to prescribe ATH434 based on its profile

Substantial Unmet Need

Severely debilitating illness with no approved treatment ripe for new entrants

Critical need for a tolerable, disease modifying therapy

Targeted Mechanism of Action

Importance of inhibiting α-synuclein aggregation to address the underlying pathology of disease

Efficacy is the Key Driver

Slowing disease progression is key driver of physician interest

Stabilizing orthostatic hypotension^, one of the most challenging symptoms in MSA, strongly positions ATH434

USD $2.4 Billion

Potential worldwide annual peak sales for ATH434 in MSA

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^Orthostatic hypotension is the drop in blood pressure on standing; Global peak sales number in U.S. Dollars; Independent market research survey conducted in 2025. Peak sales estimate based on U.S. prevalence of ~19,000

Well Positioned for 2026 Catalysts

Finalize Regulatory Strategy - Align with U.S. FDA on Phase 3 clinical trial

- ✓ Reached alignment in Type C meeting related to clinical pharmacology and non-clinical elements
- ✓ Reached alignment in Type C meeting related to Chemistry Manufacturing & Controls (CMC)
- On track for Type B End-of-Phase 2 meeting mid-year

Phase 3 Readiness activities

- Initiate start-up activities for the trial by year end
- Clinical site identification and qualification
- Manufacture and package of clinical drug supply

Build for Scalable Growth

- Expand intellectual property protection
- Evaluate additional high-value indications to grow the pipeline
- Strengthen the team to enhance organizational capabilities

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ASX: ATH
NASDAQ: ATHE

Alterity
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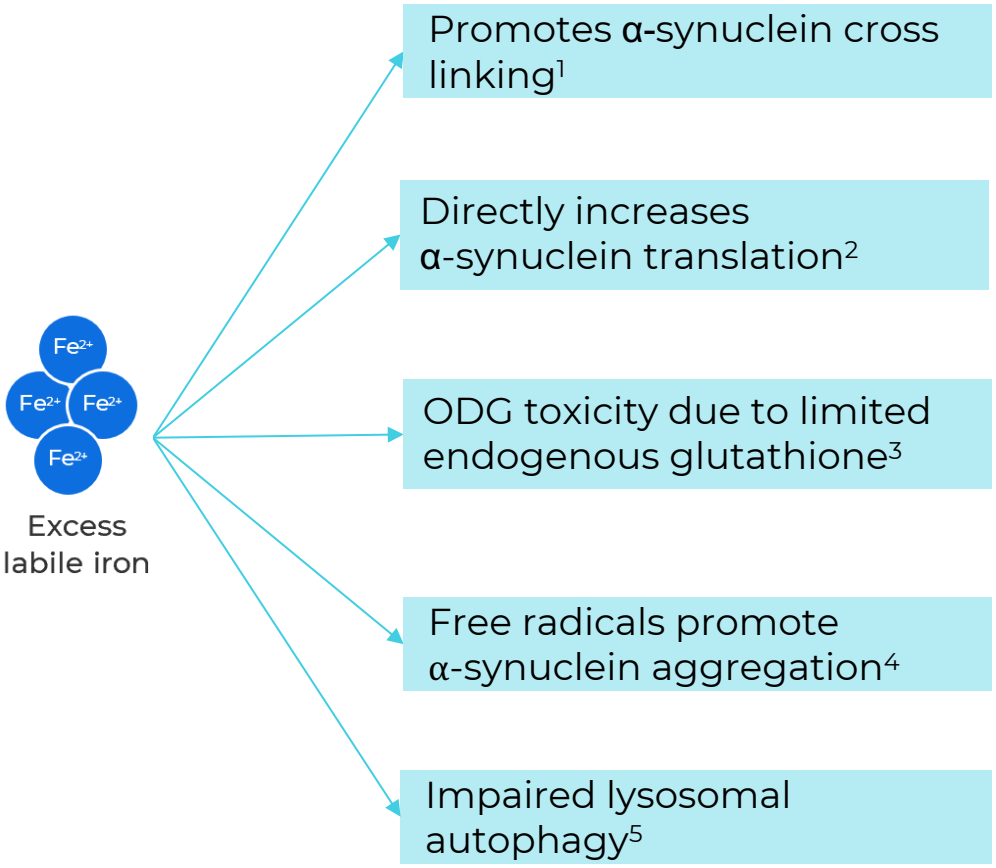
APPENDIX

Inadequately chaperoned cellular iron drives MSA pathology



The Relevance of Iron in the Pathogenesis of Multiple System Atrophy: A Viewpoint

Christine Kaindlstorfer, Kurt A Jellinger, Sabine Eschlböck, Nadia Stefanova, Günter Weiss, Gregor K Wenning

Journal of Alzheimer's Disease (2018) DOI 10.3233/JAD-170601

Iron converts native α-SYN into a β-sheet conformation and promotes its aggregation *either directly or via increasing levels of oxidative stress. The disturbance of iron homeostasis leads to abnormal iron deposition in the brain and causes neurotoxicity via generation of free radicals and oxidative stress.*

Cellular iron deposition patterns predict clinical subtypes of multiple system atrophy

Seojin Lee, Ivan Martinez-Valbuena , Anthony E. Lang, Gabor G. Kovacs

Neurobiology of Disease. 2024. https://doi.org/10.1016/j.nbd.2024.106535

Importantly, extensive evidence suggests a molecular relationship between iron accumulation and α-syn pathology.

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[1]Duce JA, et al. Mol Neurodegener. 2017;12(1):45. [2]Febbraro F, et al. NeuroReport. 2012;23(9):576-580. [3]Thorburne SK, Juurlink BH. Neurochem. 1996;67(3):1014-1022. [4]Souza JM, J Biol Chem. 2000;275(24):18344-18349. [5]Tanji, K, et al. Neurobiol Dis. 2013;49:190-198.
doi 10.3233/JAD-170601 (2018); doi.org/10.3390/ijms25084269 (2024)

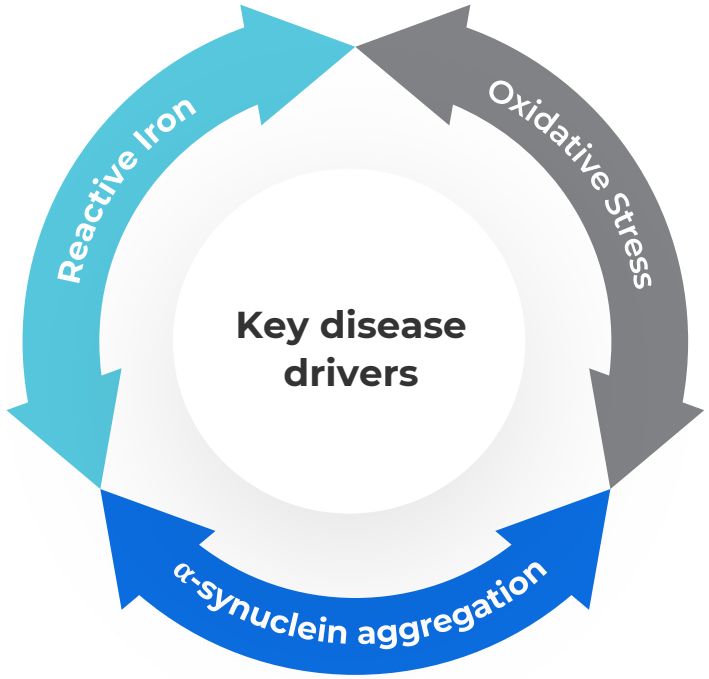
Iron is a key driver of the MSA Pathology

ATH434 chaperones excess iron to reduce neuronal injury

Disrupted Control of CNS Iron

Overwhelms natural iron buffering systems, leading to iron accumulation in MSA brain regions

MSA Pathology Cycle



Reactive iron

Generates free radicals

Promotes α-synuclein aggregation

Oxidative stress

Disrupts multiple cellular functions

Promotes α-synuclein aggregation

α-synuclein aggregation

Neuronal toxicity

Impaired myelin production

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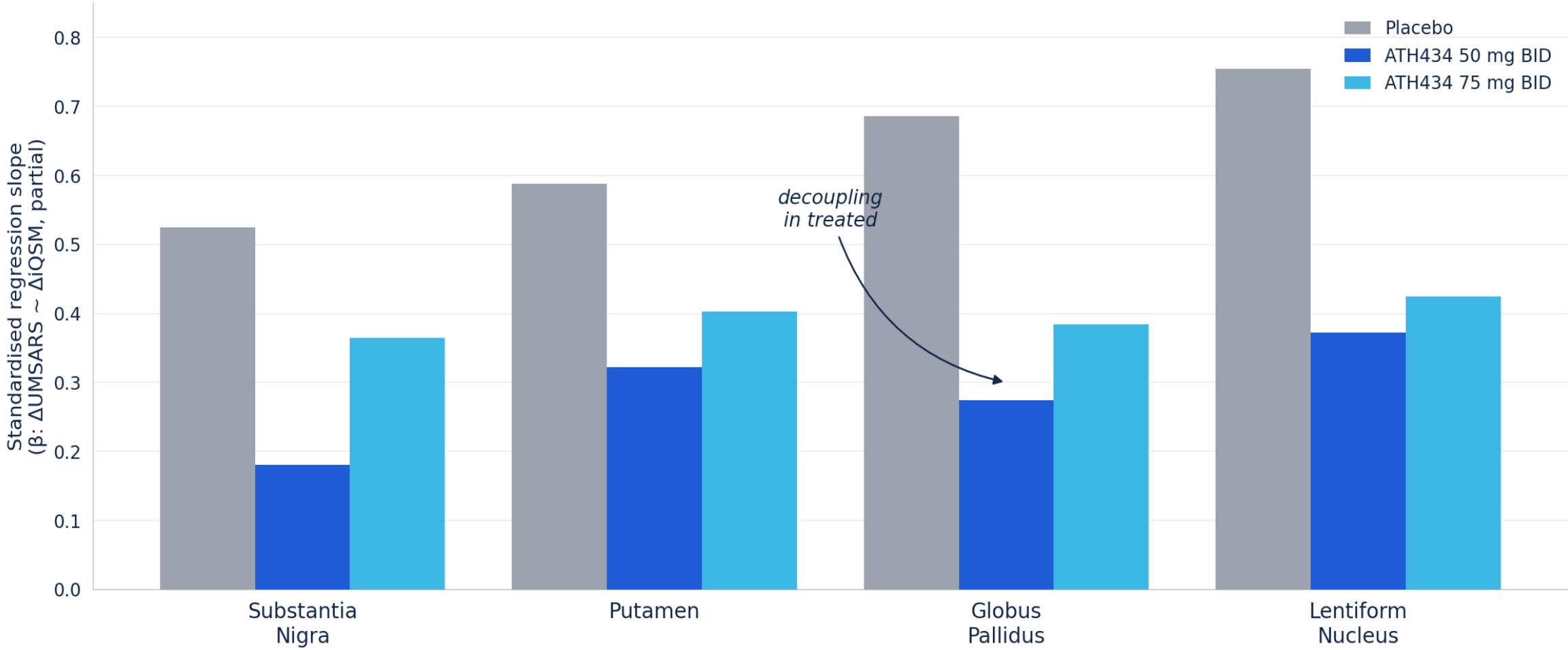
Correlation Between Change in Iron and Change in UMSARS I Score at Week 52

ATH434 decouples iron accumulation from clinical worsening



Controlling for Sex, Age, Baseline CSF NfL, Baseline QSM

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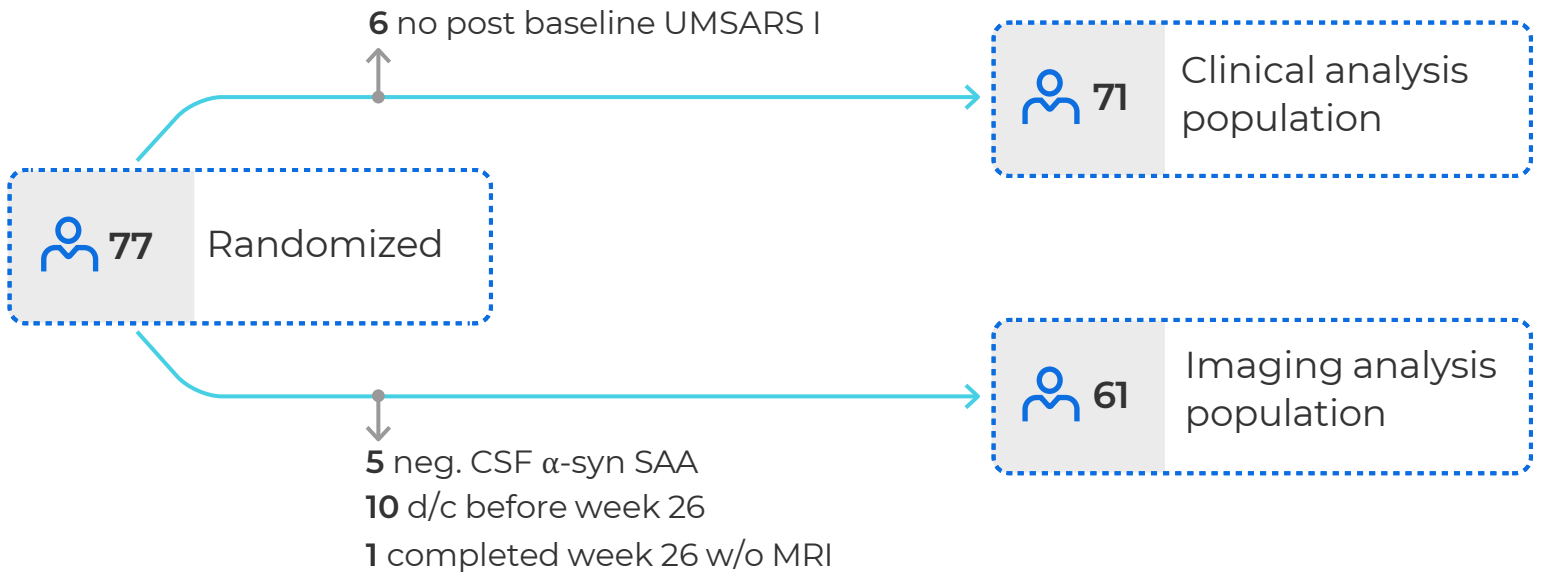
ATH434-201: Populations and key endpoints



Endpoint	Change from BL to week 52	Population
Biomarker (Primary)	Iron content in s. nigra by MRI	Imaging
Clinical (Key secondary)	Change in Modified UMSARS Part I	Clinical

All patients in Imaging and Clinical analysis populations were randomized and treated

ATH434-202: Open label study in advanced MSA

Parameter	ATH434-202 75 mg BID N=10	ATH434-201 75mg BID N=24
Age (yr)	64.5 (7.5)	63.9 (6.7)
Duration of motor symptoms (yr)	3.9 (1.8)	2.3 (0.9)
Modified UMSARS I[1]	19.2 (5.3)	14.4 (4.4)
Motor score of Parkinson Plus Scale2	57.5 (20.4)	48.9 (16.8)
Plasma NfL (pg/mL)	42.1 (14.1)	32.3 (9.0)
OH Symptom Assessment	16.7 (14.8)	15.0 (12.2)
Severe Orthostatic Hypotension	40.0%	29.2%
		Mean (SD)

Key objective was to assess efficacy and safety of ATH434 75 mg dose for comparison to 75 mg dose in 201 double-blind study

[1] MSA affected areas by MSA-atrophy index. Trujillo, P. et al Annals of Clin and Trans Neuro, 2025

ATH434-202: Key data at 75 mg dose
Comparison to double blind study at 12 mo

Change over 12 Months	ATH434-202 75 mg BID N=10	ATH434-201 75mg BID N=24
Modified UMSARS I	3.5 (4.7)	5.6 (5.6)
Clinical global impression of change (% stable)	30%	21%
Patient global impression of change (% stable)	30%	26.4%
Brain volume[1]	-0.44 (0.14)	-0.42 (0.29)
		Mean (SD)

- No serious AEs related to study drug
- AEs consistent with underlying disease

The 75 mg dose demonstrated comparable efficacy to that observed in the double-blind study

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[1] In MSA affected areas by MSA-atrophy index. Trujillo, P. et al. Annals of Clin and Trans Neuro, 2025