



GAIN THERAPEUTICS

Corporate Presentation

May 2025

NASDAQ: GANX

Forward-Looking Statements

Certain statements set forth in this presentation are forward-looking and reflect the Company's plans, beliefs, expectations and current views with respect to, among other things, future events and financial performance (collectively referred to herein as "forward-looking statements"). Forward-looking statements can be identified by the fact that they do not relate strictly to historical or current facts and are often characterized by the use of words such as "believe," "can," "could," "potential," "plan," "predict," "goals," "seek," "should," "may," "may have," "would," "estimate," "continue," "anticipate," "intend," "expect" or by discussions of strategy, plans or intentions. Such forward-looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause our actual results, performance or achievements or industry results to differ materially from historical results or any future results, performance or achievements expressed, suggested or implied by such forward-looking statements.

These include, but are not limited to, statements about the Company's ability to develop, obtain regulatory approval for and commercialize its product candidates; the timing of future IND submissions, initiation of preclinical studies and clinical trials, and timing of expected clinical results for our product candidates; the Company's success in early preclinical studies, which may not be indicative of results obtained in later studies or clinical trials; the outbreak of the novel strain of coronavirus disease, COVID-19, which could adversely impact our business, including our preclinical studies and any future clinical trials; the potential benefits of our product candidates; the Company's ability to obtain regulatory approval to commercialize our existing or any future product candidates; the Company's ability to identify patients with the diseases treated by our product candidates, and to enroll patients in clinical trials; the success of our efforts to expand our pipeline of product candidates and develop marketable products through the use of our Magellan platform; the Company's expectations regarding collaborations and other agreements with third parties and their potential benefits; the Company's ability to obtain, maintain and protect our intellectual property; the Company's reliance upon intellectual property licensed from third parties, including the license to use the Company's Magellan platform; the Company's ability to identify, recruit and retain key personnel; the Company's financial performance; developments or projections relating to the Company's competitors or industry; the impact of laws and regulations; the Company's expectations regarding the time during which it will be an emerging growth company under the JOBS Act; and other factors and assumptions described in the Company's public filings.

These statements are based on the Company's historical performance and on its current plans, estimates and projections in light of information currently available to the Company, and therefore, you should not place undue reliance on them. The inclusion of forward-looking information should not be regarded as a representation by the Company or any other person that the future plans, estimates or expectations contemplated by us will be achieved. Forward-looking statements made in this presentation speak only as of the date of this presentation, and the Company undertakes no obligation to update them in light of new information or future events, except as required by law.

You should carefully consider the above factors, as well as the factors discussed elsewhere in this presentation and our public filings, before deciding to invest in our common stock. The factors identified above should not be construed as an exhaustive list of factors that could affect the Company's future results, and should be read in conjunction with the other cautionary statements that are included in this presentation and our public filings. New risks and uncertainties arise from time to time, and it is impossible for the Company to predict those events or how they may affect the Company. If any of these trends, risks or uncertainties actually occurs or continues, the Company's business, revenue and financial results could be harmed, the trading prices of its securities could decline and you could lose all or part of your investment. All forward-looking statements attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by this cautionary statement.

Trademarks, Service Marks, and Trade Names This presentation includes our trademarks, and trade names, which are protected under applicable intellectual property laws. This presentation also may contain trademarks, service marks, trade names, and copyrights of other companies, which are the property of their respective owners. Solely for convenience, the trademarks, service marks, trade names, and copyrights referred to in this presentation are listed without the TM, SM, ©, and ® symbols, but we will assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensors, if any, to these trademarks, service marks, trade names, and copyrights.

Industry Information Market data and industry information used throughout this presentation are based on management's knowledge of the industry and the good faith estimates of management. We also relied, to the extent available, upon management's review of independent industry surveys and publications and other publicly available information prepared by a number of third party sources. All of the market data and industry information used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Although we believe that these sources are reliable, we cannot guarantee the accuracy or completeness of this information, and we have not independently verified this information. While we believe the estimated market position, market opportunity and market size information included in this presentation are generally reliable, such information, which is derived in part from management's estimates and beliefs, is inherently uncertain and imprecise. No representations or warranties are made by the Company or any of its affiliates as to the accuracy of any such statements or projections. Projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described above. These and other factors could cause results to differ materially from those expressed in our estimates and beliefs and in the estimates prepared by independent parties.

GANX Corporate Highlights

Lead Product GT-02287
Advancing into Parkinson's
Disease Patients



- **Allosteric modulator** of glucocerebrosidase enzyme (GCase)
- **Disease modifying potential:** slowing/stopping progression of motor and cognitive decline in GBA1 and idiopathic PD
- **Safe and well tolerated in Phase 1 SAD/MAD study and demonstrated target engagement**
- **Biomarker analysis from Phase 1b trial in GBA1 and idiopathic PD patients expected mid-2025**

Multiple assets in discovery
and preclinical development



- Assets identified and developed through application of our **Proprietary Magellan™ AI platform**
- Initial disease targets include neurodegenerative diseases, lysosomal storage disorders including Gaucher disease as well as metabolic disease and solid tumors

Strong intellectual
property estate



- GT-02287 composition of matter patent application with term through 2038 not including Hatch Waxman extension
- Patent applications for 5 NCE families under review

Anticipated Upcoming
Milestones



- | | |
|--|----------|
| • GT-02287 Phase 1b biomarker analysis | Mid-2025 |
| • GT-02287 Phase 2 planning (US/EU) | 2H25 |
| • IND submission | 2H25 |

Experienced Leadership: Extensive Biotech And Pharma Experience



Gene Mack, MBA
Chief Executive Officer



Jonas Hannestad, MD, PhD
Chief Medical Officer



Gianluca Fuggetta
Senior Vice President,
Finance



Joanne Taylor, PhD
SVP Research



Terenzio Ignoni, PharmD
SVP Technical
Operations



Experienced Board of Directors: Extensive Biotech And Pharma Experience (>\$30b Transactions)



Khalid Islam, PhD
Founder and
Chairman

Immunomedics minorityx
therapeutics

ARPIDA KAROLINSKA
DEVELOPMENT MOLMED

Gentium sanofi aventis FENNEC PHARMA



Claude Nicaise, MD
Independent Member

ALEXION SAREPTA
THERAPEUTICS

ovid
THERAPEUTICS Bristol Myers Squibb™



Eric I. Richman
Member

MedImmune LABCONNECT

HealthCare
VENTURES ADMA
BIOLOGICS

PharmAthene BRACE
PHARMA
CAPITAL



Gwen Melincoff
Independent Member

VERGE
GENOMICS BTG Shire

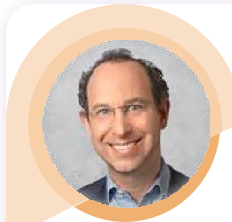
PROTALIX
Biotherapeutics AGENT CAPITAL



Hans Peter Hasler
Independent Member

HBM Healthcare
Investments SHIELD
THERAPEUTICS INC. Wyeth

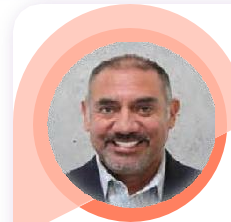
MINERVA
NEUROSCIENCES Biogen



Dov Goldstein, MD
Independent Member

BIOAGE LOXO
ONCOLOGY indapta

SCHRÖDINGER ADMA
BIOLOGICS



Jeffrey Riley
Independent Member

Pfizer Synthetic
BIOLOGICS

Quest
Diagnostics SB
SmithKline Beecham

Gain Therapeutics Pipeline

ASSET	INDICATION	TARGET	DISCOVERY	RESEARCH	PRECLINICAL	PHASE 1
GT-02287	Parkinson’s Disease	GCase				
	Gaucher’s Disease	GCase				
	Dementia with Lewy Bodies	GCase				
	Alzheimer’s Disease	GCase				
Multiple Undisclosed	Lysosomal Storage Disorders	GALC GLB1				
Undisclosed	Metabolic Diseases	AAT				
Multiple Undisclosed	Oncology: Solid Tumors	DDR2				



Lead Clinical Program

GT-02287

GBA1 Parkinson's Disease

Parkinson's Disease – Market Opportunity

Parkinson's Disease

US Market Potential: \$4B

Parkinson's disease is the second most common neurodegenerative disease¹

Current therapies only treat symptoms and do not prevent disease progression

GBA1-Parkinson's Disease

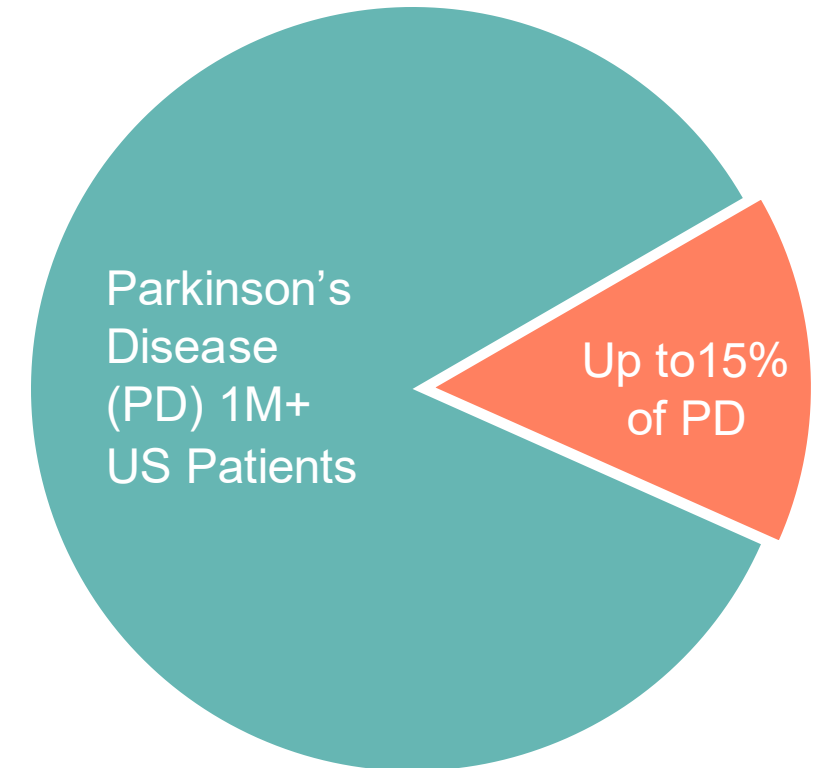
US Market Potential: \$3B

Genetically defined subpopulation of Parkinson's disease

Largest genetic risk factor for development of Parkinson's disease

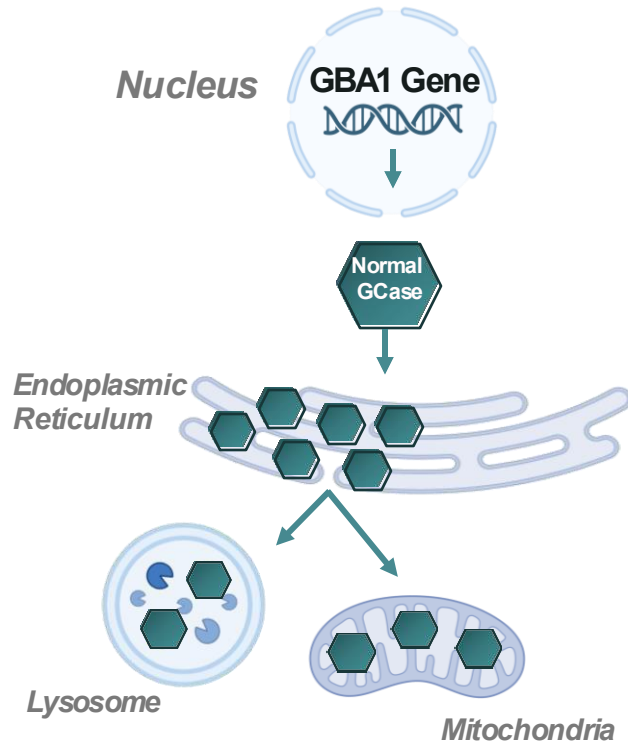
GBA1 mutations cause misfolding of an important enzyme called GCase

GBA1-PD patients experience earlier disease onset and more severe disease with faster decline in motor and cognition functions



Dysfunctional GCase triggers disease cascade affecting multiple organelle functions and leads to neurodegeneration

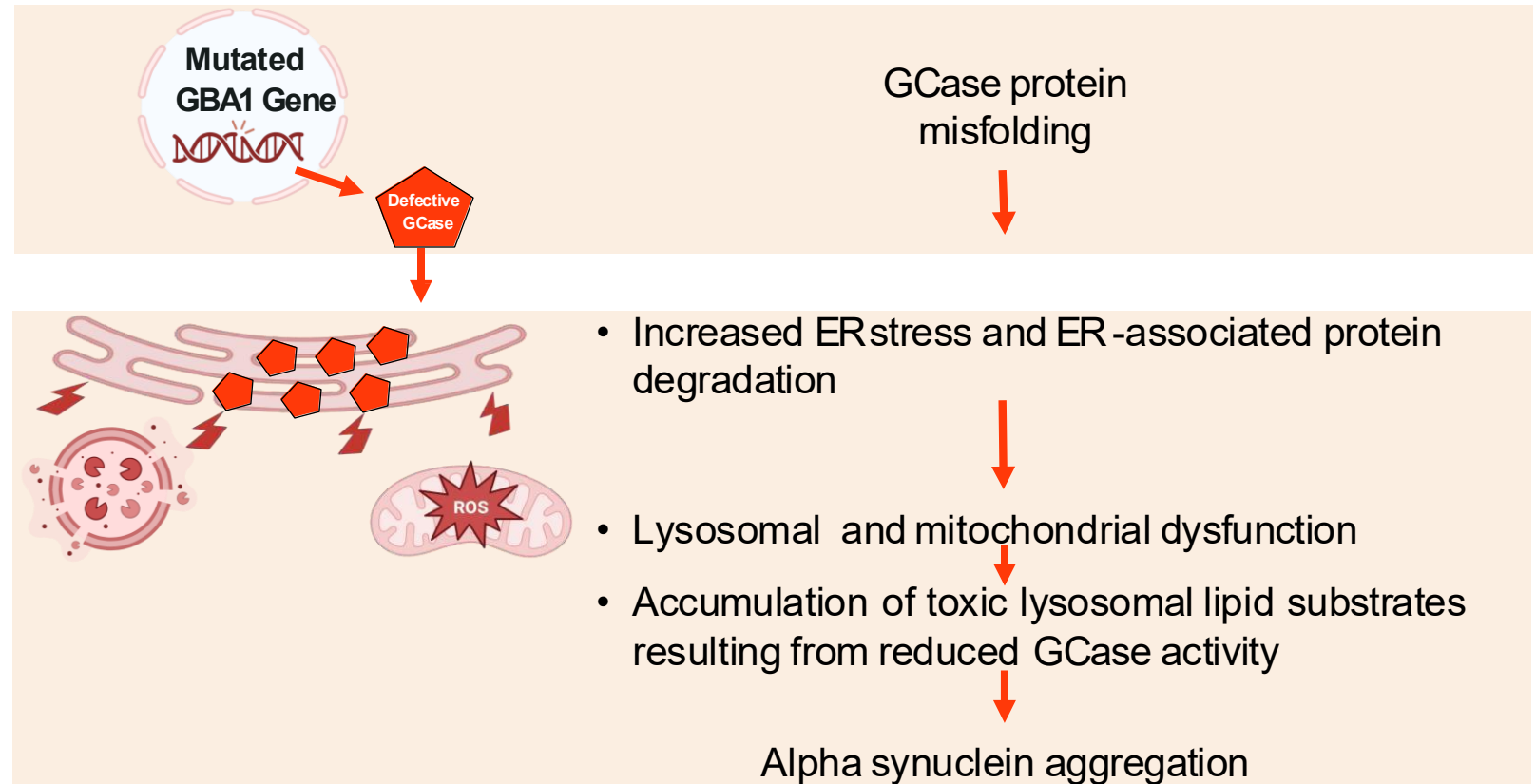
Healthy Dopaminergic Neuron



GCase maintains cell health:

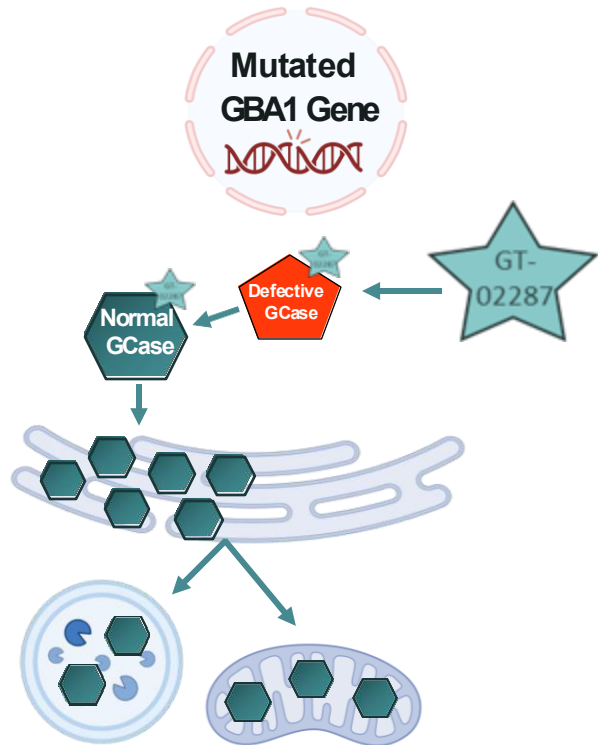
- Depletes toxic lysosomal substrates
- Stabilizes mitochondrial respiratory complex I

Diseased Dopaminergic Neuron

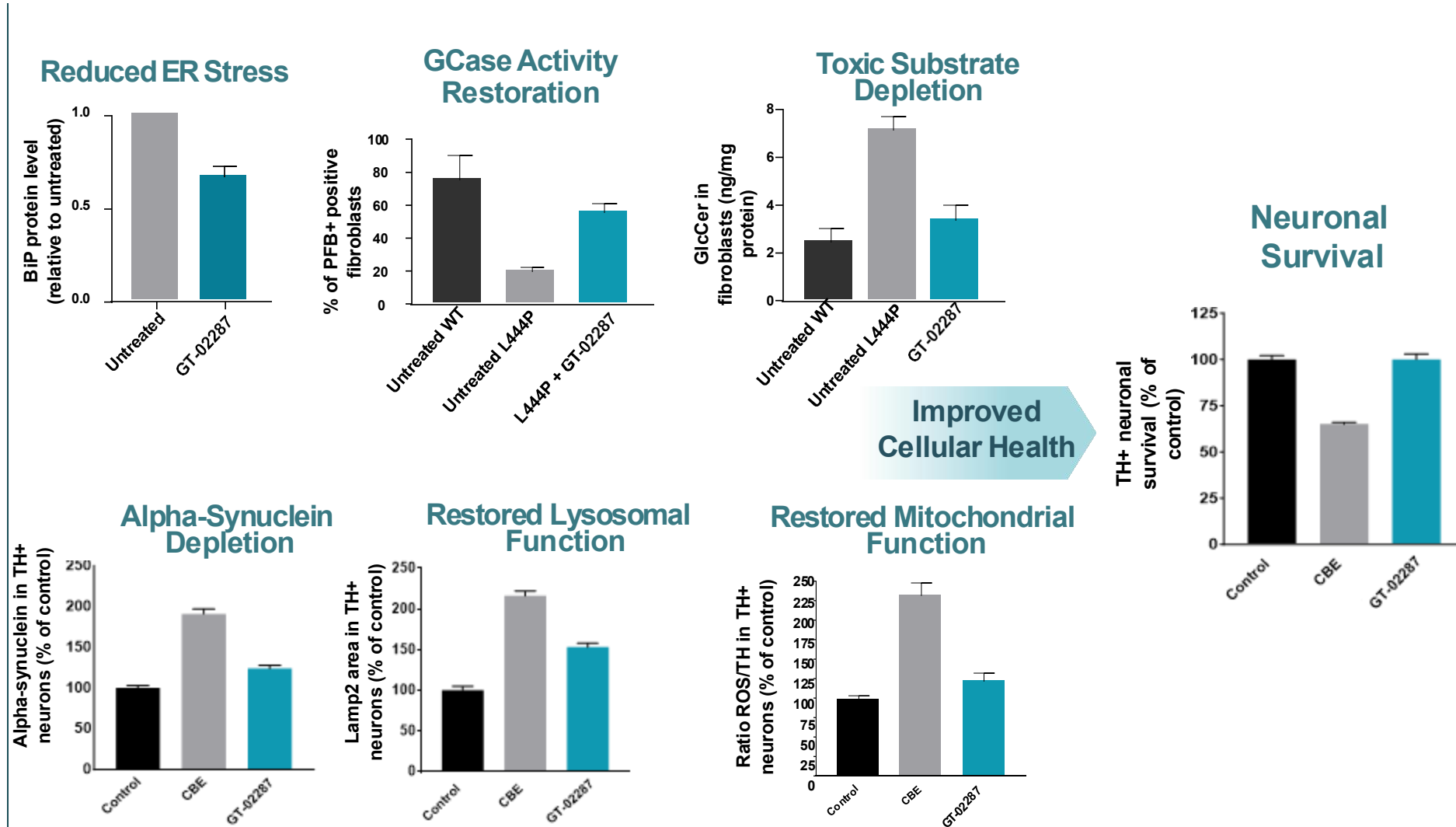


Allosteric modulator GT-02287 restores GCase function, which improves disease cascade and neuronal survival

Dopaminergic Neuron with Restored GCase Function



- Corrects protein misfolding
- Restores enzymatic activity



Single- and Multiple-ascending Dose First-in-human Phase 1 Study

Participants:

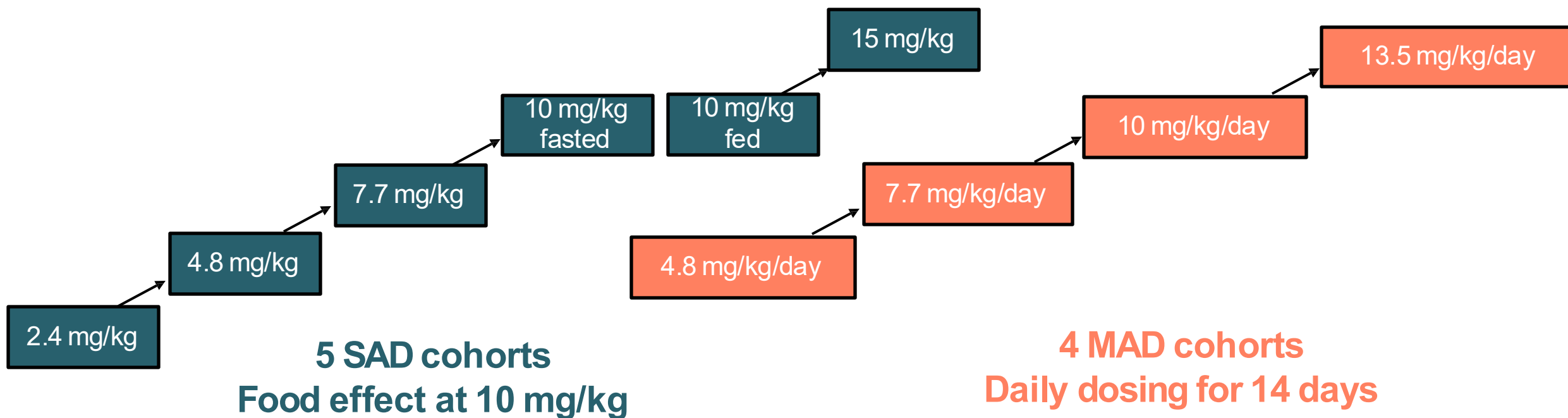
- Healthy men and women ages 18-65
- 8 subjects per cohort
 - 2 placebo; 6 active

SAD/MAD endpoints:

- Treatment-emergent adverse events
- Clinical labs, vital signs, ECGs, C-SSRS
- Plasma pharmacokinetics

MAD Cohort 4:

- CSF drug levels
- GCase activity in dry blood spots



GT-02287 was Generally Well-Tolerated, No Serious Adverse Events Observed

TEAE	SAD GT-02287 N=30	SAD Placebo N=10	MAD GT-02287 N=25	MAD Placebo N=8	All GT-02287 N=55	All Placebo N=18
Any	17 (56.7%)	4 (40.0%)	16 (64.0%)	4 (50.0%)	33 (60%)	8 (44%)
Related to study drug	10 (33.3%)	1 (10%)	11 (44.0%)	0	21 (38%)	1 (6%)
CTCAE Grade 1 mild	15 (50.0%)	4 (40.0%)	16 (64.0%)	4 (50.0%)	31 (56%)	8 (44%)
CTCAE Grade 2 moderate	4 (13.3%)	1 (10.0%)	4 (16.0%)	2 (25.0%)	8 (15%)	3 (17%)
CTCAE Grade 3 severe	0	0	0	0	0	0
Serious	0	0	0	0	0	0
Leading to discontinuation	0	0	0	0	0	0

Adverse Event Profile

Most common TEAEs in MAD:

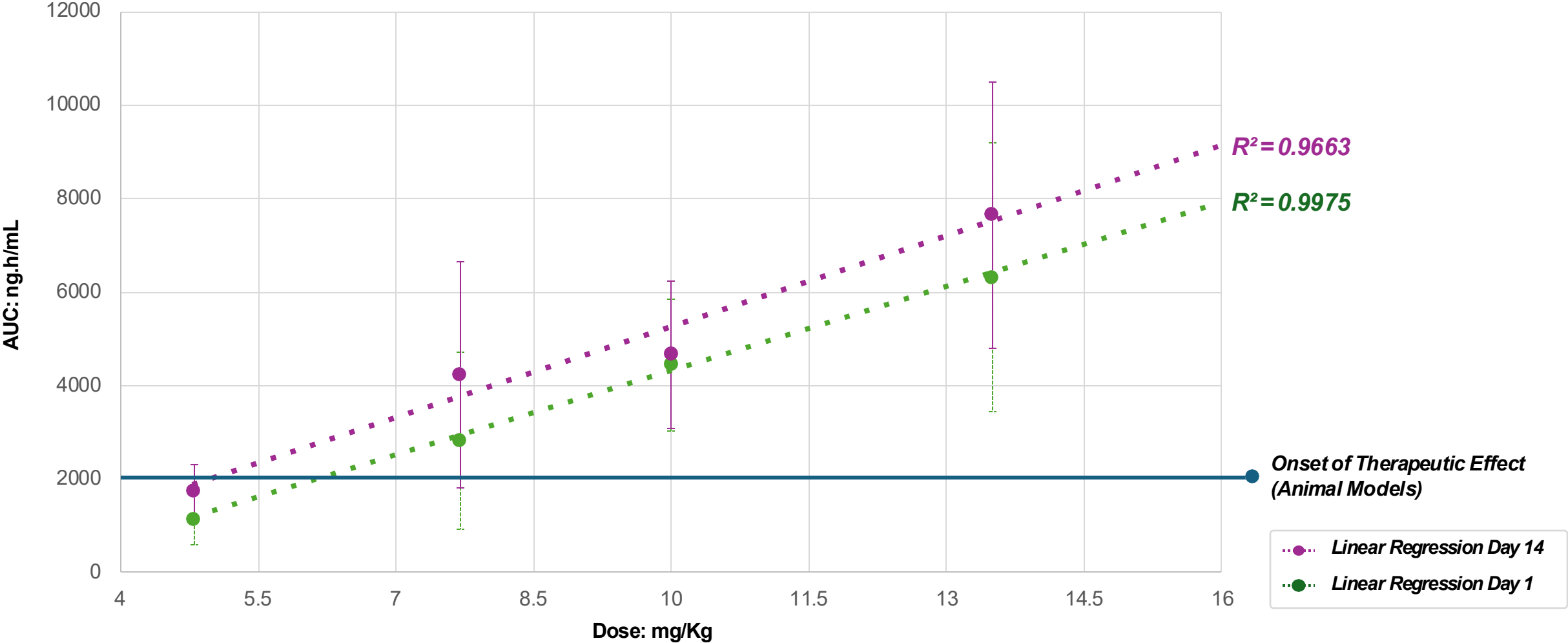
- Nausea 32%
- Abdominal pain 8%
- Diarrhea 8%
- Headache 8%

Nausea:

- >90% of events were mild
- >90% of events were <3h in duration
- Incidence increased with dose level
- Incidence decreased with continued dosing

Therapeutic Range: Phase 1 PK Data in Healthy Volunteers

Human AUC from MAD Study : Day 1 and Day 14



GT-02287 Demonstrates CNS Exposure Comparable to that Observed in Rodents

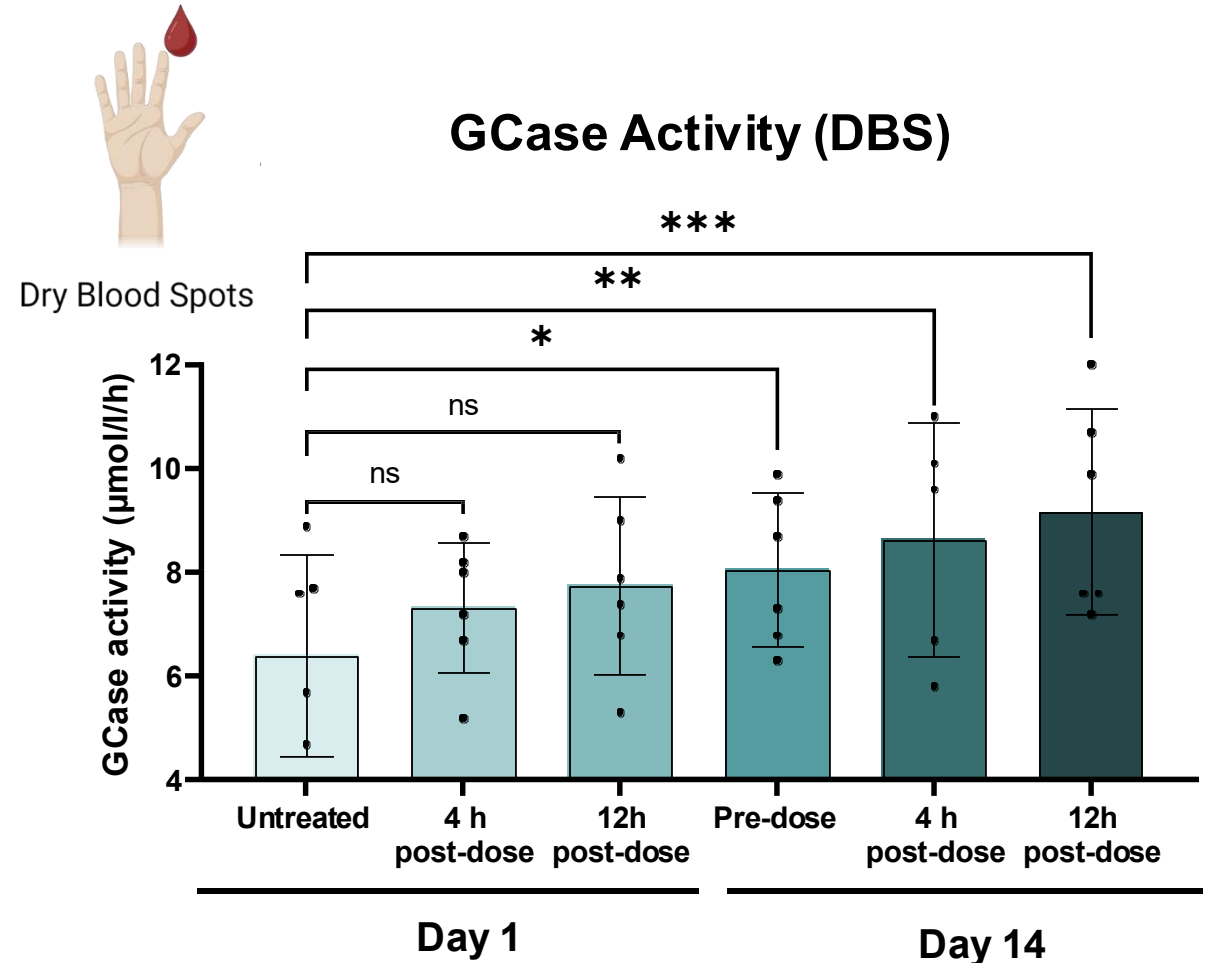
- CSF levels in Humans comparable to those observed at efficacious dose levels in rodents
- CSF levels are low in all species due to low aqueous solubility and high protein binding
- Observed total brain levels in rodents are 2-8 times higher than total plasma levels

Species	Mean CSF level (ng/mL)	Total brain level (ng/mL)	Mean plasma Cmax (ng/mL) mean Day 14	Timepoint	Dose (mg/kg)
Human (MAD4)	3.1 (1.7-4.9)	Nd	850	Day 13	13.5 PO
Mouse	4	6592	2414	15 min	10 IV
Rat	3	2441	680	1 hour	30 PO

GT-02287 Demonstrates Gcase Target Engagement In Healthy Volunteers

- GCase activity in dry blood spots was measured in MAD Cohort 4
- In GT-02287 subjects, 5 out of 6 had increased GCase activity
- In placebo subjects, no increase was observed (+4% change from baseline)

53% increase in GCase activity observed by Day 14 ($p < 0.001$)



One-way, paired, repeated measures ANOVA.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Phase 1 Blinded, Placebo Controlled SAD/MAD Trial

Safety

GT-02287 is safe and generally well tolerated in SAD (40 HV) and MAD (32 HV, daily dosing 14 days)
No SAEs, Grade 3 AEs, or clinically-significant changes in ECGs, BP/HR

Plasma Exposure

Plasma exposures in the projected therapeutic range
Adequate safety margins based on toxicology studies

CNS Exposure

GT-02287 is detectable in CSF and in line with rodent levels at effective doses

Target Engagement

GT-02287 modulates GCa6 activity in blood

Upcoming Anticipated Milestones and Potential Value Inflection Points

1H 2025

Potential clinical POC based on biomarkers of GBA1-Parkinson's disease (first analysis from Phase 1b clinical trial)

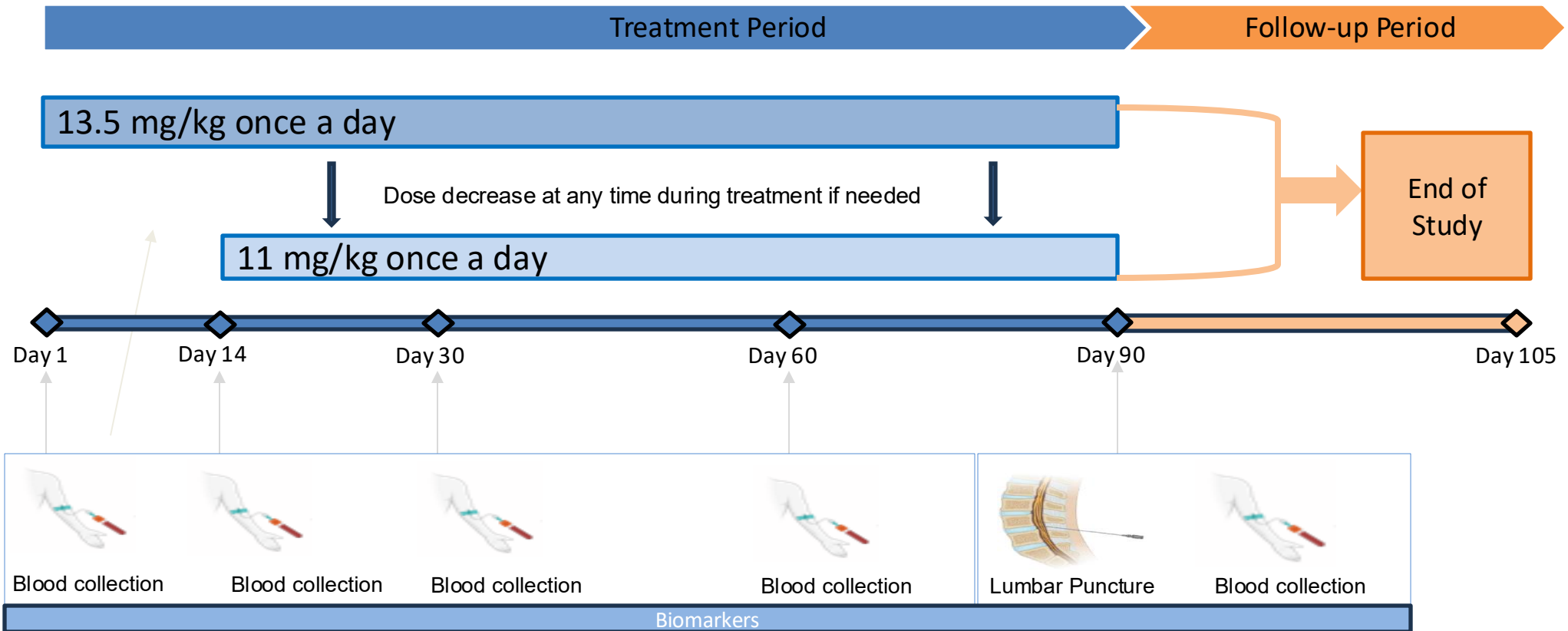
2H 2025

Start of Phase 2 planning
IND submission

Design of Phase 1b Trial in Parkinson's Disease Patients

An Open-label Study to Assess the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of GT-02287 in Participants with Parkinson's Disease With or Without a Pathogenic GBA1 Mutation

- Open-Label, single-arm, multicenter study
- Approximately 15-20 patients with or without a GBA1 mutation will be enrolled
- 90-day treatment duration
- 7 sites in Australia with potential to expand to other geographies



Phase 1b Study Objectives

Study Objectives			Endpoints
Primary	<ul style="list-style-type: none"> To evaluate the safety and tolerability of GT-02287 		
Secondary	<ul style="list-style-type: none"> To characterize the single-dose and steady state plasma PK profile of GT-02287 		
Exploratory	<ul style="list-style-type: none"> To assess levels of GT-02287 in CSF after at least 12 weeks of daily administration in participants with PD 		Concentration of GT-02287 in CSF at 4 hours post-dose after at least 12 weeks of daily administration of GT-02287
	<ul style="list-style-type: none"> Pharmacodynamic response to GT-02287 via biomarkers analysis of plasma, whole blood, blood cells, and CSF samples 		<ul style="list-style-type: none"> Gcase activity Sphingolipid levels Lysosomal and mitochondrial markers Inflammatory markers
	<ul style="list-style-type: none"> To explore the effect of GT-02287 on scores from selected clinical scales and questionnaires over a 90-day treatment 		Movement Disorder Society Unified Parkinson's Disease Rating Scale (MDS-UPDRS, OFF state) and other standard functional scales including MoCA, ADL, etc.

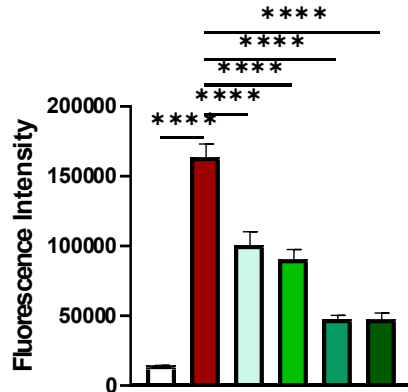
GT-02287 Prevents GBA1 Disease Cascade in Mouse CBE Model of GBA1-PD

GBA1-PD Model: CBE causes partial knockdown of GCase activity

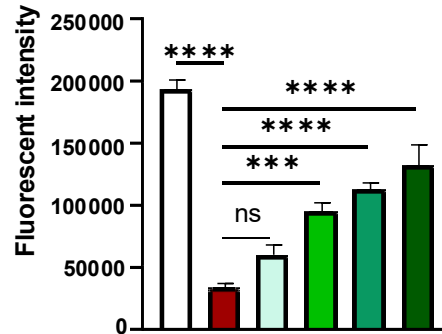


- **CBE** is an irreversible GCase inhibitor
- Administration of **CBE** models the effects of dysfunctional GCase seen in GBA1-Parkinson's disease

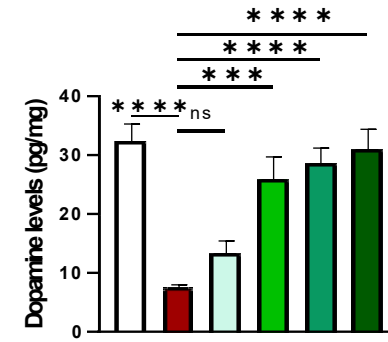
Aggregated α -syn (SN)



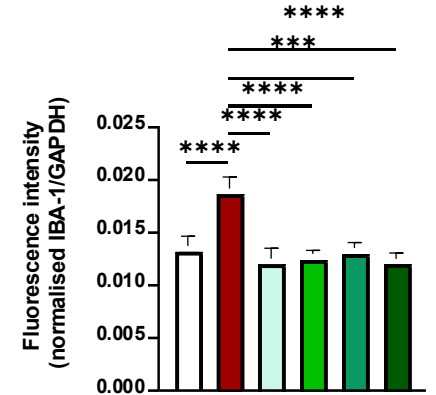
Tyrosine Hydroxylase (SN)



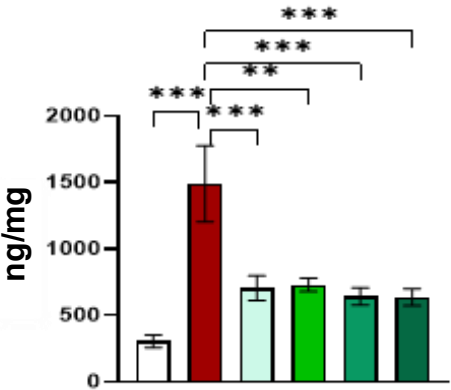
Striatal Dopamine



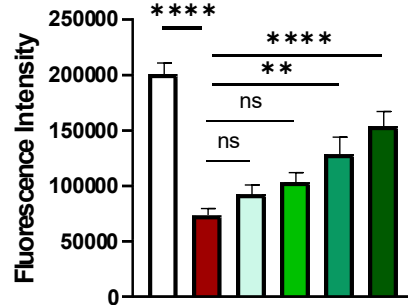
Iba-1 (SN)



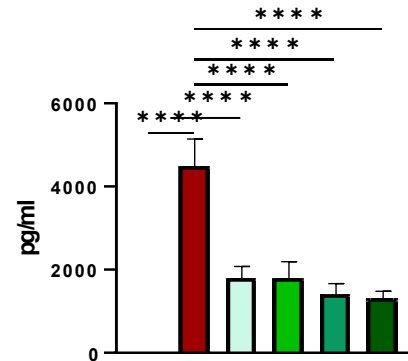
GluCer (Cortex)



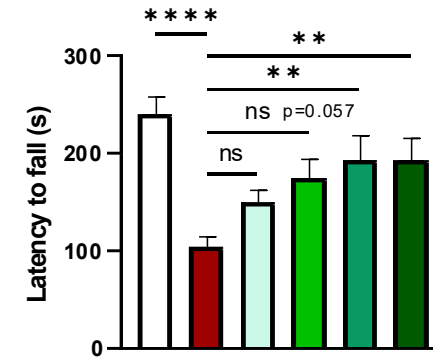
NeuN (Cortex)



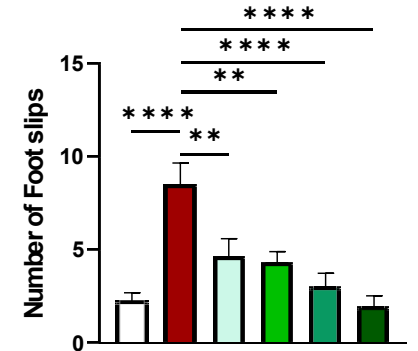
NfL



Wire Hang



Beam Walk



Control

CBE

+GT-02287 (30mg/kg)

+GT-02287 (60mg/kg)

+GT-02287 (90mg/kg)

+GT-02287 (120mg/kg)

GT-02287 displays a rescue and disease-modifying effect in animal models of GBA1 and iPD

GBA1- PD Model (CBE+PFFs)

α -Syn PFFs

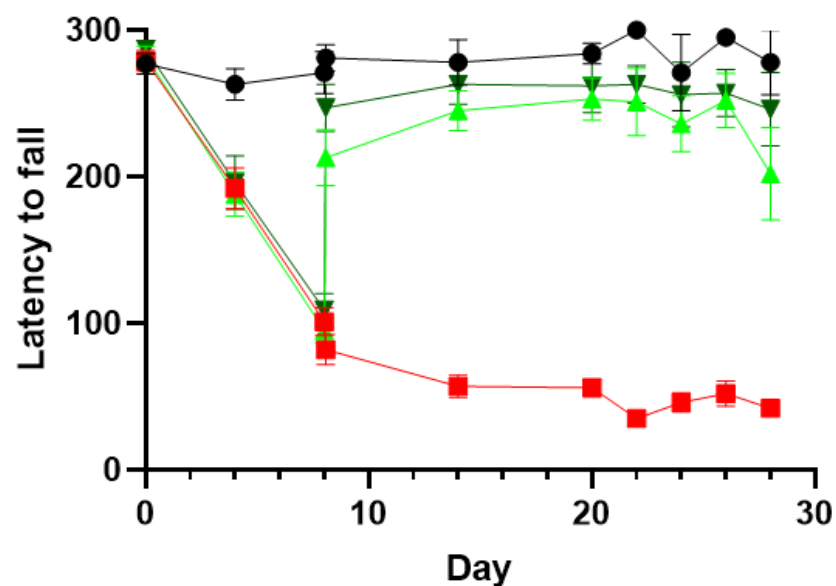


Low Level CBE

No drug

GT-02287

Washout



Idiopathic PD Model (PFFs only)

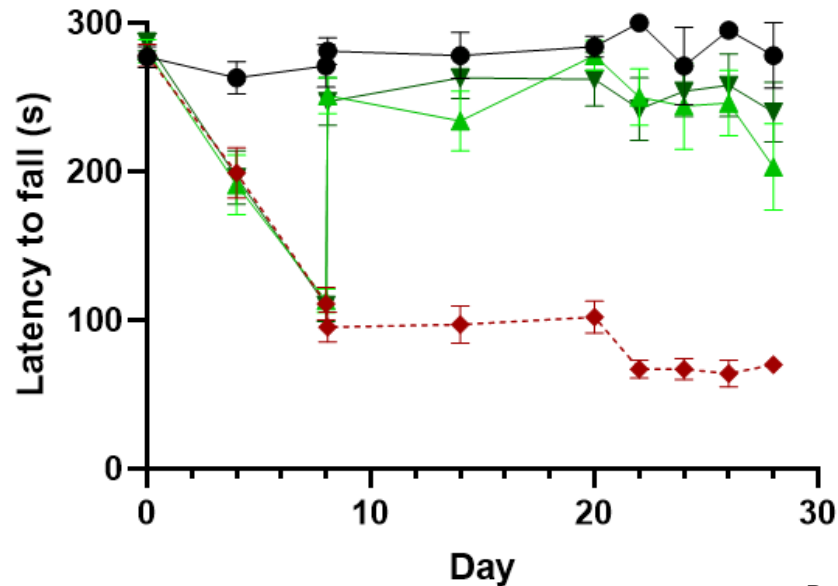
α -Syn PFFs



No drug

GT-02287

Washout



Mouse Wire Hang
Rescue & Washout

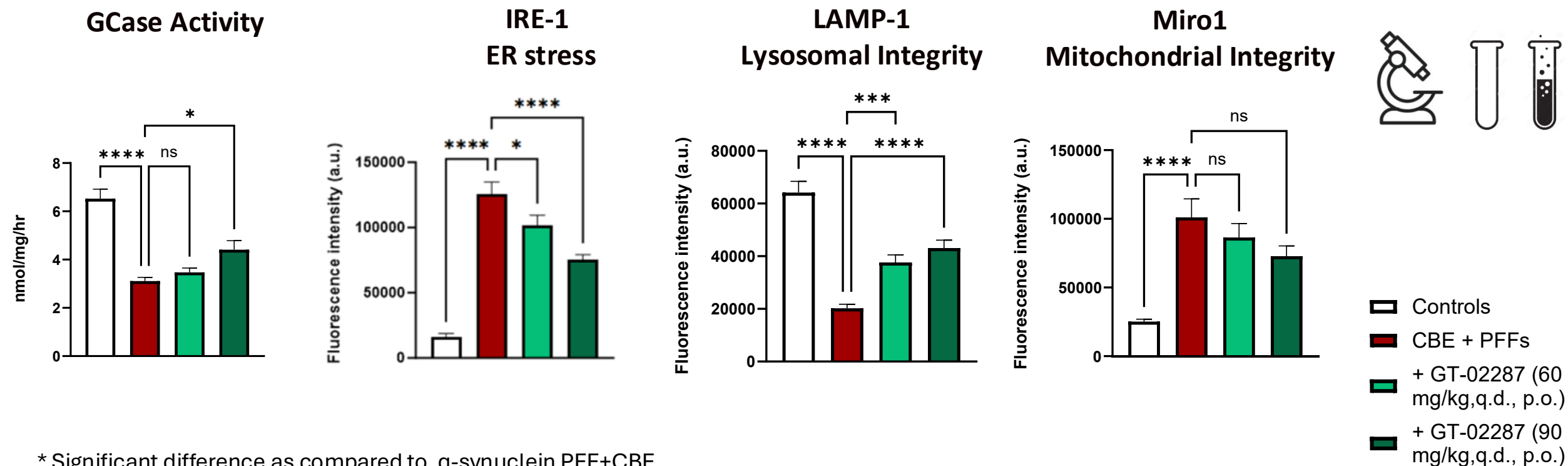
- Control
- CBE/PFFs
- ◆ PFFs
- ▲ GT-02287 60 mg/kg
- ▼ GT-02287 90 mg/kg

Data is shown as Mean \pm S.E.M.(n=14 till day 20, then n=7)

Fast-onset rescue effect of GT-02287 driven by enhanced GCase activity, reduced ER stress and increased lysosomal and mitochondrial integrity



2h post-treatment

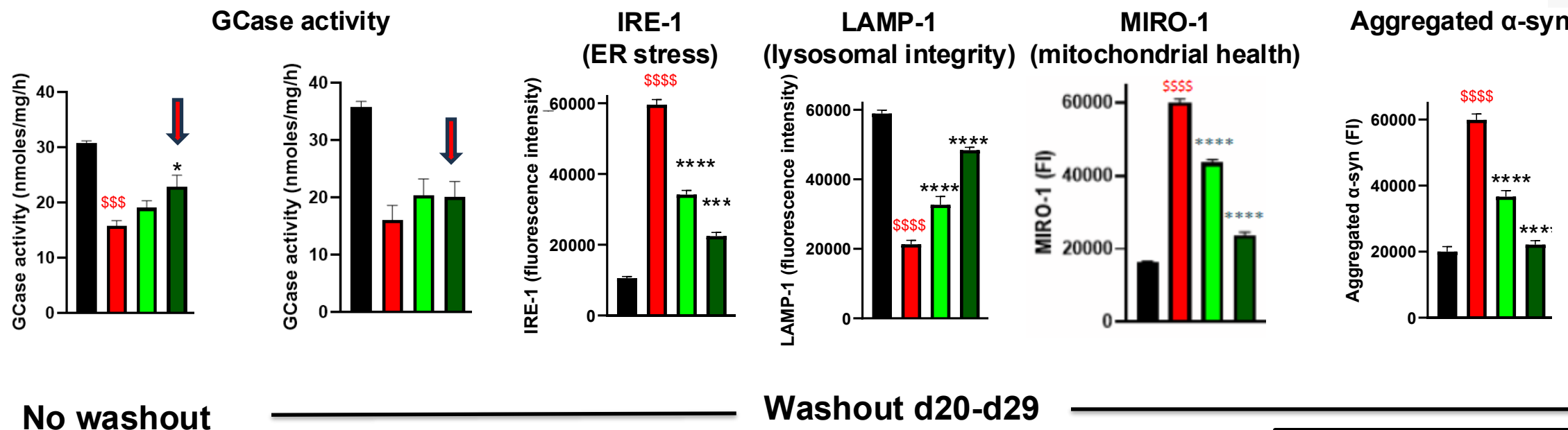


* Significant difference as compared to α -synuclein PFF+CBE.

One-way ANOVA followed by Dunnett's Multiple Comparison Test. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ & **** $P < 0.0001$.

Brain biomarker changes maintained following GT-02287 washout

➤ Taken together, data support GT-02287's disease modifying effect



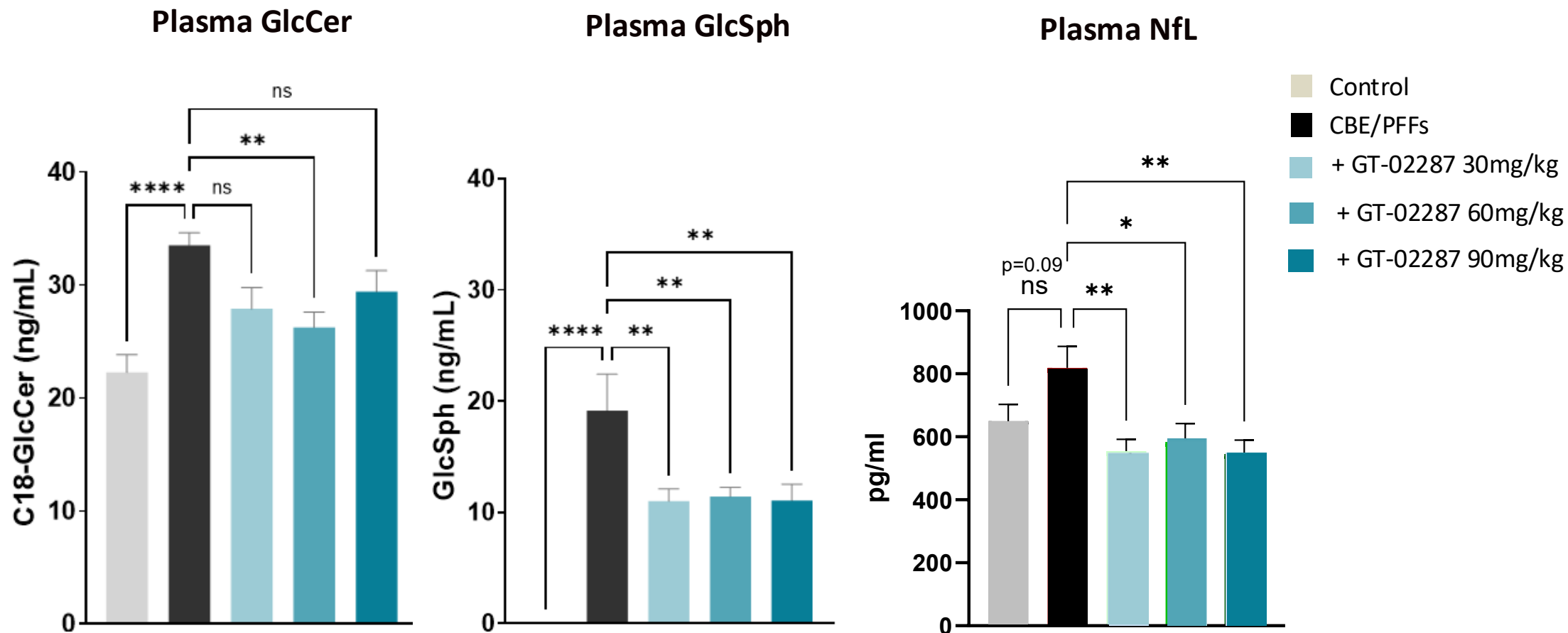
CBE/PFF GBA1-PD model

➤ Above biomarkers are being measured in blood and CSF in Phase 1b



Data is shown as Mean ± S.E.M. \$Significant difference as compared to sham control group * Significant difference as compared to α-synuclein PFF+CBE. One-way ANOVA followed by Dunnett's Multiple Comparison Test. \$/*P < 0.05, \$\$/**P < 0.01, \$\$\$/***P < 0.001 & \$\$\$\$/****P < 0.0001.

Translational plasma-based biomarkers of GT-02287 rescue effect

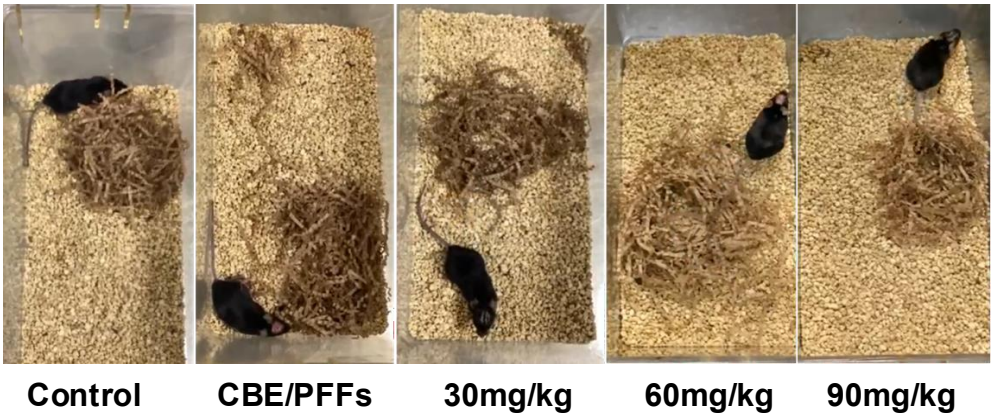
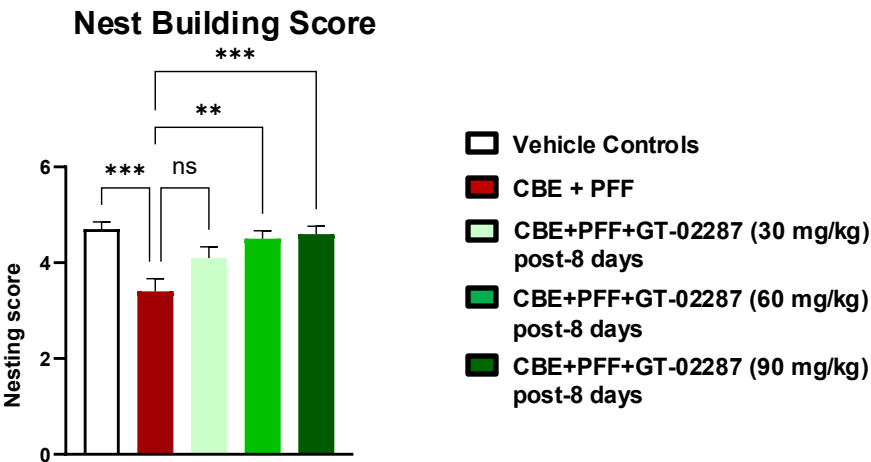


Data shown as Mean \pm S.E.M. (n=10). Significant difference as compared to PFFs or PFFs + CBE. One-way ANOVA followed by Dunnett's Multiple Comparison test. ns (non significant). * < P 0.05, ** < P 0.01, **** < 0.0001.

GT-02287 Improves Nest Building Performance in Therapeutic Model of GBA1-PD

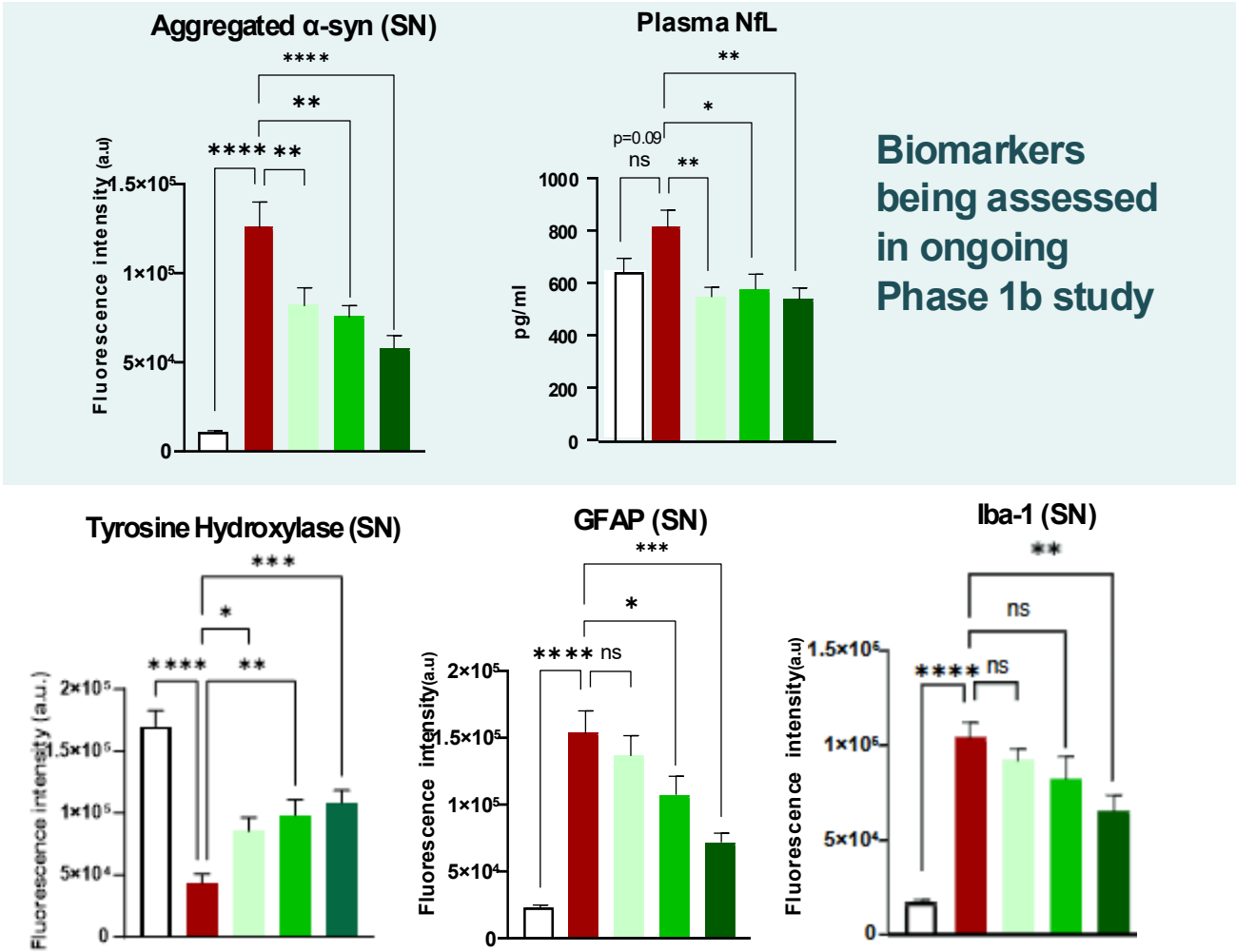
Improvements in Nest-building Performance

Nest building is a non- invasive test to study activities of daily living and cognitive performance in rodent models



Data is shown as Mean \pm S.E.M.(n= 7). \$Significant difference as compared to sham control group. One-way ANOVA followed by Dunnett's Multiple Comparison Test. \$P < 0.05, \$\$P < 0.01, \$\$\$P < 0.001 & ****P < 0.0001.

Improvements in Relevant Biomarkers

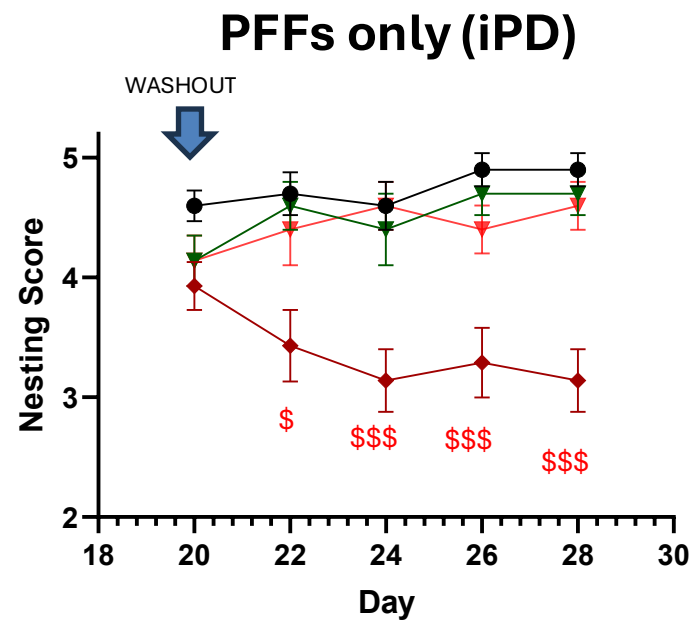
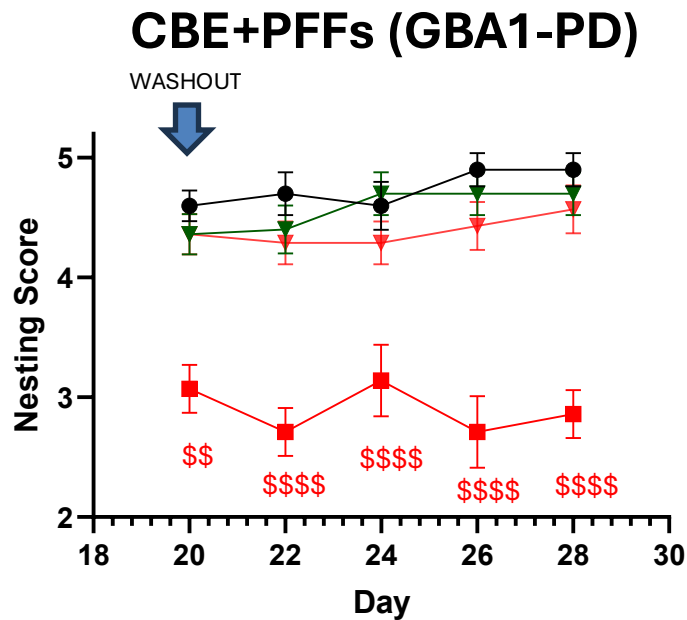


Biomarkers being assessed in ongoing Phase 1b study

Nesting score unaffected by drug washout: evidence of disease modifying effect on complex behaviors



Mouse Nesting Building Washout



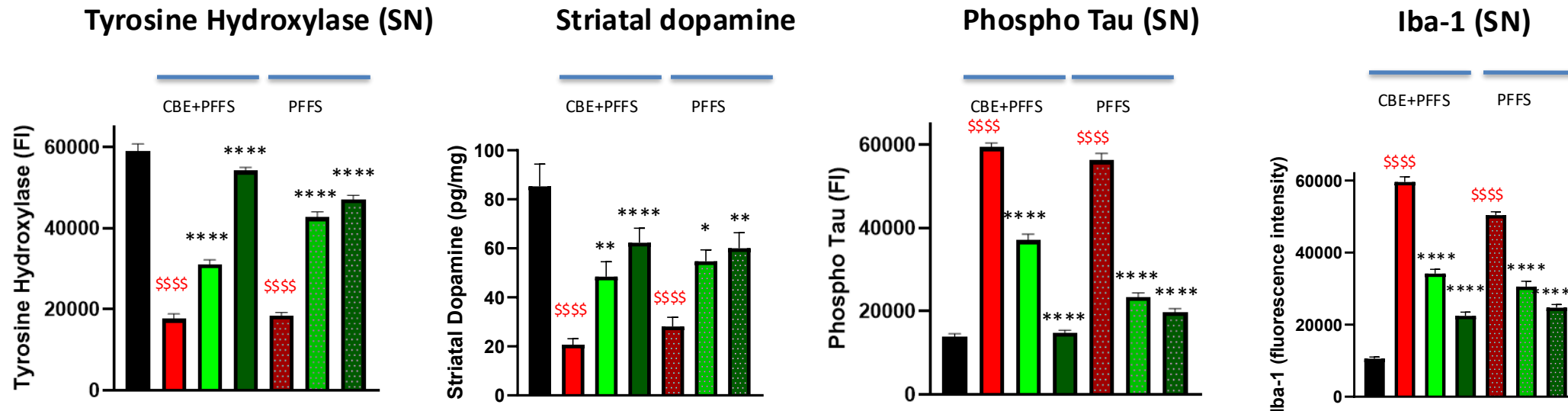
- Control
- CBE+PFFs
- PFFs
- GT-02287 90mg/Kg
- GT-02287 90mg/Kg + washout

Data is shown as Mean \pm S.E.M.(n= 7). \$Significant difference as compared to sham control group

One-way ANOVA followed by Dunnett's Multiple Comparison Test. \$P < 0.05, \$\$P < 0.01 , \$\$\$P < 0.001 & \$\$\$\$P < 0.0001.

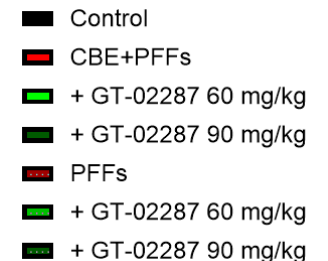
Brain biomarker changes maintained following GT-02287 washout

➤ Data support GT-02287's disease modifying effect






GT-02287 Washout d20-d29

CBE/PFF (GBA1-PD) and PFF only (iPD) models



Data shown as Mean \pm S.E.M.(n=7). \$Significant difference as compared to sham control group. * Significant difference as compared to α -synuclein PFF+CBE or α -synuclein PFF alone. One-way ANOVA followed by Dunnett's Multiple Comparison Test. \$/*P < 0.05, \$\$/**P < 0.01, \$\$\$/***P < 0.001 & \$\$\$\$/****P < 0.0001.

GT-02287 has Best-in-Class Profile for GBA1-Parkinson's Disease

	Effect on Disease Cascade	 GT-02287	 BIA 28-6156	 VQ-101
GCase Mechanism of Action	Increases Lysosomal GCase Activity	✓	?	✓
	Reduces ERStress	✓	?	?
	Reduces Toxic Lipid Substrates	✓	✓ ✗	✓
	Reduces Aggregated α-Synuclein	✓	?	✓
	Improves Lysosomal Function	✓	✓	✓
	Improves Mitochondrial Function	✓	?	?
	Reduces Neuroinflammation	✓	?	?
Disease-Modifying Effect	Provides Neuroprotection	✓	?	?
	Increases Dopamine Levels	✓	?	?
	Restores Motor Function	✓	?	?
	Improves Cognitive Function	✓	?	?

Large Market Potential for GT-02287 for Various Neurodegenerative Diseases

Indication	Rationale	Number of Patients (US)
GBA1-Parkinson's Disease	Patients have dysfunctional GCase due to heterozygous GBA1 mutation	150,000
Idiopathic Parkinson's Disease (IPD)	Increase in GCase activity and target activation in healthy volunteers suggests potential activity in iPD	1,000,000
Gaucher Disease	Dysfunctional GCase due to homozygous GBA1 mutation	6,000
Dementia with Lewy Bodies	GT-02287 reduces aggregated alpha-synuclein, a component of Lewy bodies	1,000,000
Alzheimer's Disease	GT-02287 has shown positive effects in preclinical models of Alzheimer's disease	5,800,000

Company Background

CORPORATE BACKGROUND

Established in 2017

27 employees in three locations: HQ in Bethesda, Maryland, Lugano, Switzerland, Barcelona, Spain

Founder and Executive Chairman: Dr. Khalid Islam

ANALYST COVERAGE

BTIG	Tom Shrader, Ph.D., CFA
Oppenheimer & Co	Jay Olson, CFA
HC Wainwright	Ram Selvaraju, Ph.D.
Chardan	Keay Nakae, CFA
Maxim	Jason McCarthy, Ph.D.
ROTH	Boobalan Pachaiyappan, Ph.D.
Scotiabank	Louise Chen, MBA

FINANCIAL AND STOCK DATA

IPO (NASDAQ: GANX)

- March 2021
- Led by BTIG and Oppenheimer & Co.

CAPITAL STRUCTURE

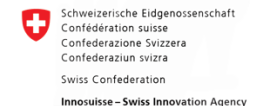
- 26.5 million shares outstanding
- No debt*

CASH POSITION

- \$10.4 million as of December 31, 2024

GRANT SUPPORT

- Michael J. Fox Foundation for Parkinson's Research
- The Silverstein Foundation for Parkinson's with GBA
- Innosuisse (Swiss Innovation Agency)





Company Contacts

Gene Mack
President & CEO

gmack@gaintherapeutics.com

Apaar Jammu
Manager, Investor Relations and Public Relations

ajammu@gaintherapeutics.com





Appendix