



# Delivering the Future of Genomic Medicines

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August 2025

# Forward-Looking Statements and Legal Disclaimers

This presentation, and accompanying oral commentary, contains forward-looking statements regarding our current expectations. These forward-looking statements include, without limitation, statements relating to: the therapeutic and commercial potential and value of our product candidates and engineered capsids, including the ability of our zinc finger epigenetic regulators to address various neurological diseases and our capsid engineering platform to expand delivery beyond currently available methods; potential STACTM-BBB partnerships and its manufacturability at commercial scale; the potential to develop, obtain regulatory approvals for and commercialize durable, safe and effective therapies to treat certain diseases and the timing, availability and costs of such therapies; the potential to use ZF, SIFTER and other technologies to develop durable, safe and effective therapies and capsids; the potential for us to benefit and earn development and commercial milestone and royalty payments and additional licensed target fees from our collaborations and the timing of any such benefits and payments; plans for the near-term execution of a Fabry commercialization license agreement; anticipated revenues from existing and new collaborations and the timing thereof; plans and expectations to seek partners or collaborators for certain of our programs; the potential for isaralgagene civaparvovec to qualify for the FDA's Accelerated Approval program, including the adequacy of data generated in the Phase 1/2 STAAR study to support any such approval; expectations concerning the availability of additional data to support a potential BLA submission for isaralgagene civaparvovec, and the timing of such submission; the potential to accelerate the expected timeline to approval and bring isaralgagene civaparvovec to patients sooner than previously expected; the anticipated advancement of isaralgagene civaparvovec to registration; the advancement of our preclinical neurology programs, including the potential of ST-503 to transform the chronic neuropathic pain landscape, plans to initiate patient enrollment and dosing for ST-503 and announcement and timing of such preliminary proof of efficacy data, and anticipated prion disease CTA submission and announcement and timing of related preliminary clinical data; plans regarding our financial resources, including the impact of a potential Fabry commercialization license agreement to provide cash runway through clinical data readouts for lead neurology programs, iSFN and prion disease; anticipated plans and timelines for us and our collaborators conducting our ongoing and potential future clinical trials and presenting data from our clinical trials and those of our partners and making regulatory submissions; the anticipated advancement of our product candidates to late-stage development, including potential future registrational trials, execution of our corporate strategy, our pipeline, the identification of additional targets, and the advancement of preclinical programs to the clinic, key milestones and catalysts, and other statements that are not historical fact. These statements are not guarantees of future performance and are subject to certain risks and uncertainties that are difficult to predict. Our actual results may differ materially and adversely from those expressed. Factors that could cause actual results to differ include, without limitation, the uncertain and costly research and development process, including the risk that preclinical results may not be indicative of any future clinical trials, to the effects of macroeconomic factors or financial challenges, including as a result of ongoing overseas conflicts, tariffs, geopolitical instability, inflation and fluctuations in interest rates on the global business environment, healthcare systems and business and operations of us and our collaborators, including the initiation and operation of clinical trials; the research and development process; the uncertain timing and unpredictable results of clinical trials, including whether preliminary or initial clinical trial data will be representative of final clinical trial data and whether final clinical trial data will validate the safety, efficacy and durability of product candidates; the unpredictable regulatory approval process for product candidates across multiple regulatory authorities; the potential for Sangamo to cease development of the Hemophilia A program, whether due to its inability to secure options to bring the program forward or otherwise; the manufacturing of products, product candidates and capsids; the commercialization of approved products; the potential for technological developments that obviate technologies used by us and our collaborators; the potential for us or our collaborators to breach or terminate collaboration agreements; the potential for us to fail to realize our expected benefits of our collaborations; the uncertainty of our future capital requirements, financial performance and results, our lack of capital resources to fully develop, obtain regulatory approval for and commercialize our product candidates, including our ability to secure collaboration for some of our programs, our ability to secure the funding required to advance our preclinical programs in a timely manner or at all; and our lack of capital resources and need for substantial additional funding to execute our operating plan and to operate as a going concern, including the risk we will be unable to obtain the funding or partnerships, in particular for our Fabry disease program, or additional collaboration partners necessary to advance our preclinical and clinical programs and to otherwise operate as a going concern in which case we may be required to cease operations entirely, liquidate all or portion of our assets and/or seek protection under applicable bankruptcy laws middle all or a portion of out. There can be no assurance that we and our collaborators will be able to develop commercially viable products. These risks and uncertainties are described more fully in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2025, as filed with the Securities and Exchange Commission ("SEC") and future reports filed with the SEC. Forward-looking statements contained in this presentation speak only as of the date hereof, and we undertake no duty to update such information except as required under applicable law. This presentation concerns investigational product candidates that are under preclinical and/or clinical investigation, and which have not yet been approved for marketing by any regulatory agency. They are currently limited to investigational use, and no representations are made as to their safety or efficacy for the purposes for which they are being investigated. Any discussions of safety or efficacy are only in reference to the specific results presented here and may not be indicative of an ultimate finding of safety or efficacy by regulatory agencies.

# Sangamo is a differentiated genomic medicine company focused on treating debilitating neurological diseases



**Potent zinc finger epigenetic regulation technology**, with neurology programs advancing towards the clinic



**Industry-leading AAV capsid discovery platform** has demonstrated non-invasive intrathecal and intravenous delivery to the brain



Powerful research platform **continually innovates in new modes of genome modulation** to support value creation opportunities for both wholly owned programs and potential partners



Strong roster of current partners and a **clear regulatory pathway to Accelerated Approval** agreed with **U.S. FDA in Fabry disease**, with partner negotiations ongoing

**SHARP STRATEGIC FOCUS IN NEUROLOGY**

**OPTIMIZING ASSET VALUE**



## Why neurology genomic medicines?

- Widespread, debilitating diseases, largely unserved by current approaches
- Many neurology indications are single-gene or gene-associated
- Genomic medicines are well suited to neurology:
  - Targeting diseases at the DNA level reduces therapeutic complexity
  - Gene expression can be fine-tuned to the level needed for proper brain function
  - Potential for durable effect as most brain cells do not divide
- Addressing the issues of widespread brain delivery is critical to creating an effective neurology medicine



— Sangamo pairs the epigenetic regulation *and* capsid delivery capabilities needed to create neurology genomic medicines

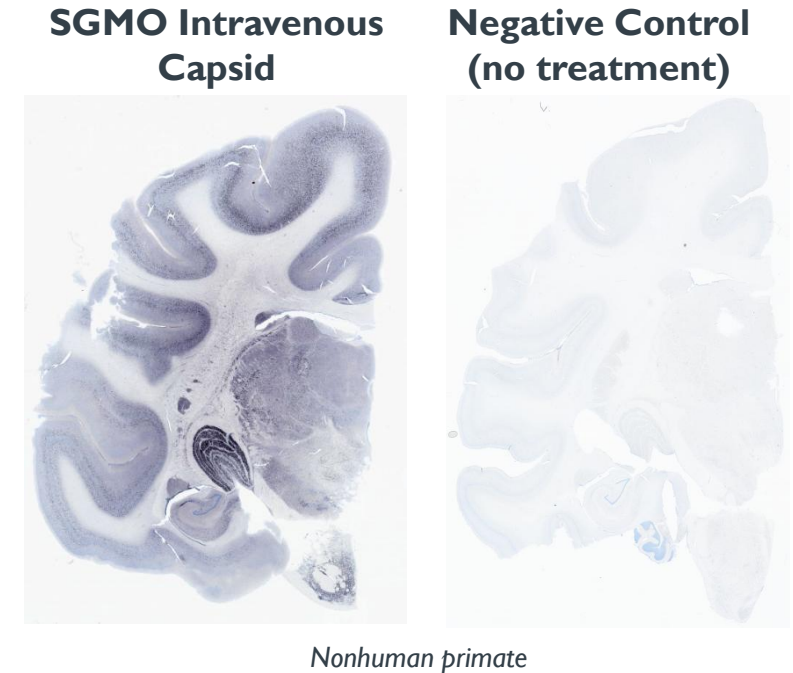
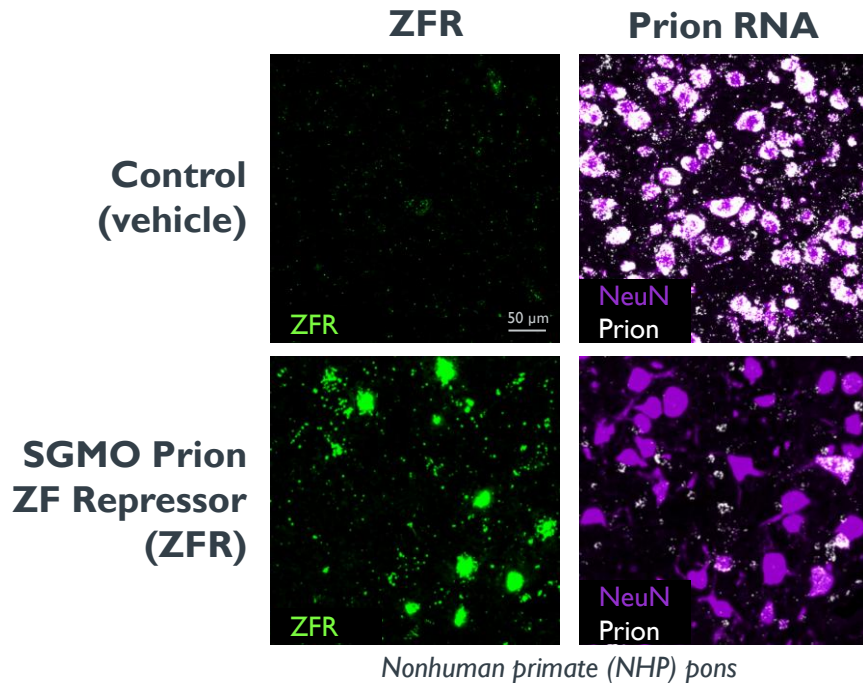
## Genome-Targeting Cargo

*Epigenetic regulation platform*



## Capsid Delivery Engine




*AAV capsid delivery platform via intravenous delivery*






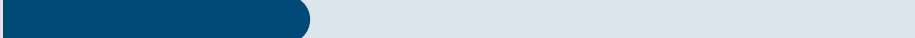
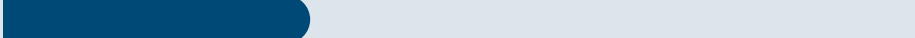












## Future of Neurology Genomic Medicines

# Company pipeline and business development opportunities



## NEUROLOGY PIPELINE – WHOLLY OWNED

Indication	Preclinical	Phase I/2	Pivotal	Partner	Commentary
<b>Idiopathic Small Fiber Neuropathy</b> (ST-503)				-	First clinical site initiated in Phase I/2 STAND study. Dosing expected fall 2025.
<b>Prion Disease</b> (ST-506)				-	CTA submission anticipated as early as mid-2026
<b>Undisclosed neurology target(s)</b>				-	

## NEUROLOGY PIPELINE – PARTNERED

Partnered Indication	Preclinical	Phase I/2	Pivotal	Partner	Commentary
<b>Tauopathies</b>  				 <small>A Member of the Roche Group</small>	<b>August 2024:</b> Announced epigenetic regulation and capsid delivery license agreement
<b>Undisclosed neurology target</b>  				 <small>A Member of the Roche Group</small>	
<b>Undisclosed neurology target</b> 					<b>December 2024:</b> Announced capsid license agreement for up to five neurological diseases
<b>Undisclosed CNS target</b> 					<b>April 2025:</b> Announced capsid license agreement for up to five diseases of the CNS
<b>ALS/FTD</b> 				 <small>AstraZeneca Rare Disease</small>	
<b>Huntington's Disease</b> 					

## OTHER PROGRAMS

Indication	Preclinical	Phase I/2	Pivotal	Partner	Commentary
<b>Fabry Disease</b> (Isaralgagene civaparvovec)				-	<b>June 2025:</b> Announced positive topline readout from registrational STAAR study. BLA submission expected as early as IQ 2026.
<b>Hemophilia A</b> (Giroctogene fitelparvovec)				*	<b>July 2024:</b> Positive readout in Phase 3 AFFINE trial.

# Gateway neurology indication: ST-503 for chronic neuropathic pain



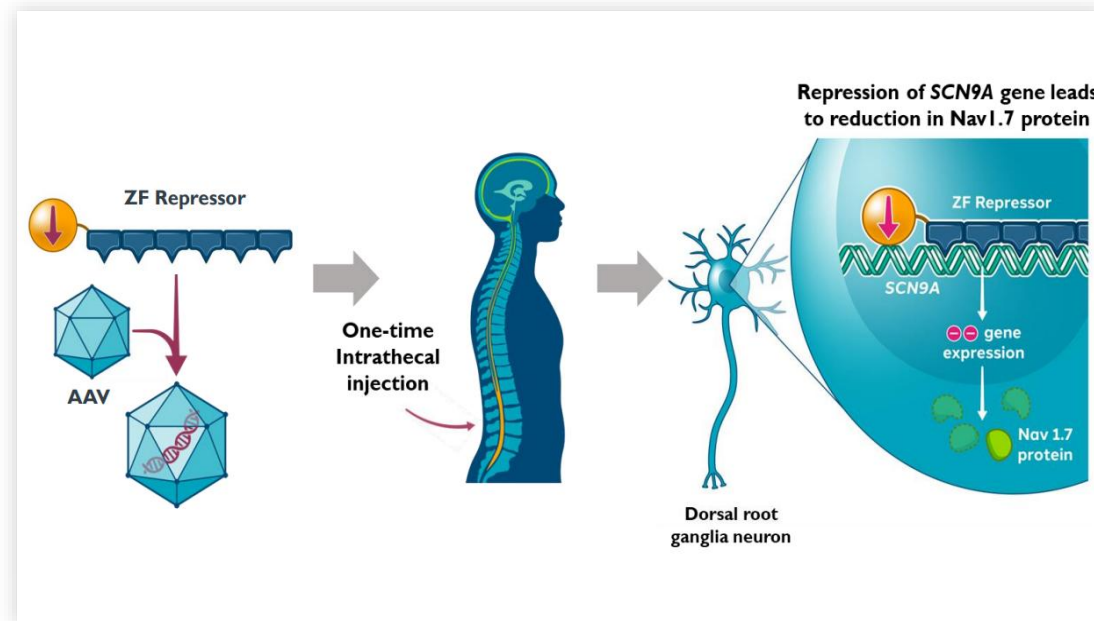
## Epigenetic regulation

has the potential to fundamentally reshape the treatment of chronic intractable pain, which impacts millions globally, with few adequate treatment options

### KEY ANTICIPATED MILESTONES

**Fall 2025:** Initiate patient dosing

**Q4 2026:** Preliminary proof of efficacy data



- Starting in **idiopathic small fiber neuropathy (iSFN)**, a debilitating chronic neuropathic pain impacting **43,000 in the U.S.**
- **Nav1.7 sodium channel**, encoded by the **SCN9A gene**, is involved in a spectrum of inherited neuropathies
- Engineered **ZFR** resulted in **~70% repression of SCN9A gene** and **reduced pain hypersensitivity in mice**, with **high level of Nav1.7 specificity**
- Intrathecal delivery of **ZFR in NHPs** by AAV9 demonstrated up to **60% repression of SCN9A** in dorsal root ganglia (DRG) tissue
- **Short timescale** to expected preliminary clinical efficacy readout
- **Gateway pain indication:** if successful, ST-503 could be broadened to other types of chronic neuropathic pain e.g. trigeminal neuralgia



# Gateway neurology indication: Prion disease



## Clear path

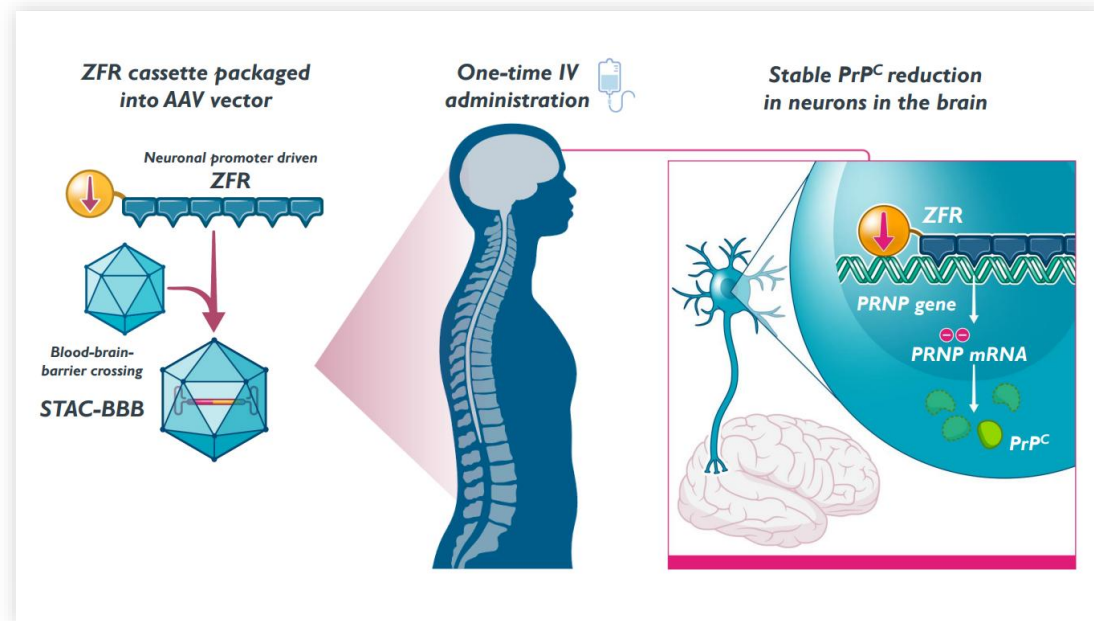
to potential clinical validation in a devastating disease with no current approved treatment options

### KEY ANTICIPATED MILESTONES

**As early as mid-2026:** Prion CTA submission

**Late-2026:** Clinical trial enrollment and dosing

**Mid-2027:** Preliminary clinical data



- Progressive condition leading to **rapid neurodegeneration and death**, with **no disease modifying therapy**
- At least **1,300 new cases each year in U.S. and Europe\***
- Caused by the **misfolding of the prion protein (PrP)** into toxic species
- **ZFR-driven reduction of neuronal PrP expression** in prion-inoculated mice **profoundly extended survival**, reduced PrP in the brain and **improved biomarker and behavioral readouts**
- Widespread ZFR expression and **prion gene repression seen in NHP** brains following intravenous (IV) **STAC-BBB** administration
- **First-in-human** trial of novel **STAC-BBB** capsid, which if successful, could validate broader neurology pipeline

\* US (per CDC) and Europe (<https://www.eurocj.d.ed.ac.uk/>)



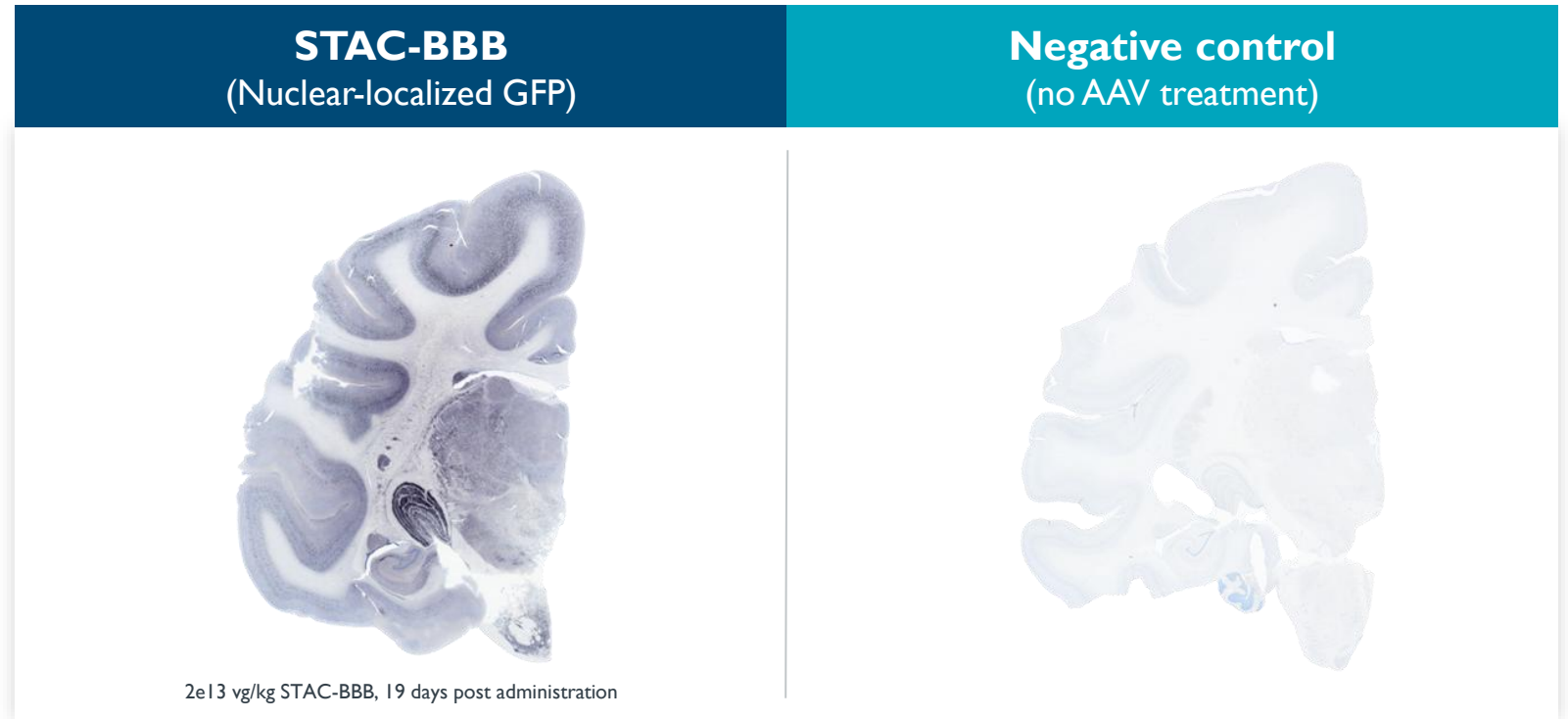
# Widespread CNS delivery is challenging with conventional AAVs

Our capsid engineering platform has demonstrated the ability to expand delivery, with industry-leading results



## STAC-BBB

Showed robust penetration of the BBB and widespread transgene expression throughout the brain in NHPs following intravenous administration



- Enabled **strong expression** of zinc-finger cargo throughout the brain, including **all key brain regions**
- **Industry-leading** performance: **700-fold higher** transgene expression than benchmark capsid AAV9
- **Capsid-enabled delivery of zinc finger payloads** targeting prion disease and tauopathies resulted in **widespread repression** of target genes
- Vector genomes were **enriched in the CNS** and appear **de-targeted from the DRG and the liver**
- STAC-BBB is already the subject of **three blue-chip pharma agreements** (Genentech, Astellas and Lilly) with the potential for additional partnerships

## Biopharma agreements have demonstrated industry interest in STAC-BBB and could provide significant economics for Sangamo

### STAC-BBB partnerships

**Genentech**  
*A Member of the Roche Group*

 **astellas**

*Lilly*

*Potential for additional STAC-BBB license agreements*

**\$88m**

cash received from  
partners to date

**Up to \$4.6b**

in potential future milestones and  
exercise fees assuming exercise of  
all options and targets

**Additional  
potential product  
royalties**

## Numerous Benefits of Partnerships:

Partner buy-in validates the  
science

Provides potential non-dilutive  
capital to advance pipeline

Leverages partner domain  
expertise

Promotes optimal resource  
allocation to advance late-stage  
clinical development

# Company Highlights



Advancing epigenetic regulation for important gateway neurology diseases like chronic neuropathic pain and prion disease, with preliminary clinical data anticipated in Q4 2026 for iSFN



Proprietary AAV blood-brain barrier penetrant capsid (STAC-BBB) with industry leading CNS tropism in NHPs. Already the subject of license agreements with Genentech, Astellas and Lilly, with potential for additional partnerships.



STAC-BBB potentially unlocks multiple neurology epigenetic programs that could be advanced ourselves or with partners



Novel next-generation modular integrase (MINT) platform allows targeting of a serine recombinase engineered to enable large-scale genome editing



Positive topline readout in registrational STAAR study in Fabry disease. Clear pathway to Accelerated Approval with FDA, with potential BLA submission as early as 1Q 2026 (3-year acceleration). Engaged in potential commercialization partner negotiations.



# 2Q25 Business Updates

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## 2Q25 Key Takeaways

**Announced positive topline results from registrational STAAR study in Fabry disease, including positive mean annualized eGFR slope at 52-weeks across all dosed patients, which FDA has agreed will serve as primary basis of approval.**

### Neurology Pipeline

- Initiated first clinical site in Phase I/2 STAND study of ST-503 for treatment of intractable pain due to idiopathic small fiber neuropathy (iSFN), a type of chronic neuropathic pain.
- Expect to dose first patient in the fall of 2025, with preliminary proof of efficacy data anticipated Q4 2026.
- CTA-enabling activities advance for ST-506 in prion disease, with a CTA submission expected as early as mid-2026.
- Held productive meeting with the MHRA for ST-506, including alignment on nonclinical safety studies and clinical study design.

### Fabry Disease

- Announced positive topline results from registrational STAAR study, including a positive mean annualized eGFR slope of 1.965 mL/min/1.73m<sup>2</sup>/year (95% CI: -0.153, 4.083) observed at 52-weeks across all 32 dosed patients.
- Key secondary endpoints also positive. Elevated expression of  $\alpha$ -Gal A activity maintained up to 4.5 years for longest treated patient. Plasma lyso-Gb3 levels remained generally stable following ERT withdrawal. A stabilization in cardiac endpoints was also observed.
- ST-920 demonstrated favorable safety and tolerability profile, without the requirement for preconditioning.
- Sangamo continues to engage with the FDA ahead of an anticipated BLA submission as early as Q1 2026.



## Financial Highlights

- Raised approximately \$21 million in net proceeds from an underwritten registered equity offering.
- Approximately **\$38.3 million in cash and cash equivalents** as of June 30, 2025, which, together with the proceeds from our at-the-market offering program since June 30, 2025, we believe will be sufficient to fund our planned operations into **the fourth quarter of 2025.**



# Q2 Pipeline Progress & Anticipated Milestones

## CORPORATE UPDATES

- ✓ Raised approximately \$21 million in net proceeds from an underwritten registered equity offering.
- Continue to engage in potential business development discussions across the Sangamo pipeline and platforms.

## NEUROLOGY

- ✓ Initiated first clinical site in Phase 1/2 STAND study of ST-503 for treatment of intractable pain due to iSFN.
- ✓ Expect to dose first iSFN patient in the fall of 2025.
- Preliminary ST-503 proof of efficacy data anticipated in Q4 2026.
- ✓ Continued to advance CTA-enabling activities for ST-506 in prion disease, leveraging STAC-BBB.
- ✓ Held productive meeting with MHRA for ST-506, including alignment on nonclinical safety studies and clinical study design.
- ✓ Presented in the prestigious Presidential Symposium at the 28th American Society of Gene & Cell Therapy (ASGCT) Annual Meeting to showcase the potent combination of epigenetic regulation and capsid delivery technology for the treatment of prion disease in animal models, including a profound survival extension observed in disease mouse models.
- A CTA submission for prion is expected as early as mid-2026.

## FABRY DISEASE

- ✓ Announced positive topline results from registrational STAAR study in Fabry disease, including positive mean annualized eGFR slope at 52-weeks across all dosed patients, which FDA has agreed will serve as primary basis of approval.
- ✓ Following a single dose of ST-920, a positive mean annualized eGFR slope of 1.965 mL/min/1.73m<sup>2</sup>/year (95% confidence interval (CI): -0.153, 4.083) at 52-weeks was observed across all 32 dosed patients in the study.
- ✓ Key secondary endpoints in the study were also positive and patients demonstrated a range of other clinical benefits.
- ✓ ST-920 was well tolerated, without the need for preconditioning.
- Sangamo continues to engage with the FDA ahead of an anticipated BLA submission as early as Q1 2026 and continues to engage in business development negotiations for a potential Fabry commercialization agreement.

# Financial metrics

## Historical

**\$910m**

Cash received from  
partners to date

**\$33.0m\***

Non-GAAP OpEx – Q2 2025

**~\$38.3m**

Cash and cash equivalents balance  
as of 6/30/25

## Forward Looking

**Up to \$6.1b**

In potential future milestones and exercise fees, assuming exercise of all  
options and targets

**\$125m – \$145m\*\* (2025)**

Non-GAAP OpEx guidance excludes certain non-cash charges as noted  
below\*\*\*



# Engineering Versatile Zinc Finger Payloads for Neurology

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# Sangamo has the tools needed to advance a next-generation neurology genomic medicine company



## Potent Zinc Finger Cargo

Level of potency is precisely customizable to the indication being targeted



## Versatility and Exquisite Specificity

We believe any gene in the genome is targetable for up- or down-regulation



## All Human Derived

Potentially avoids issues with immunogenicity



## Small Size. Easily Packaged.

Zinc fingers can be easily packaged into viral vectors



## Powerful AAV Delivery Platform

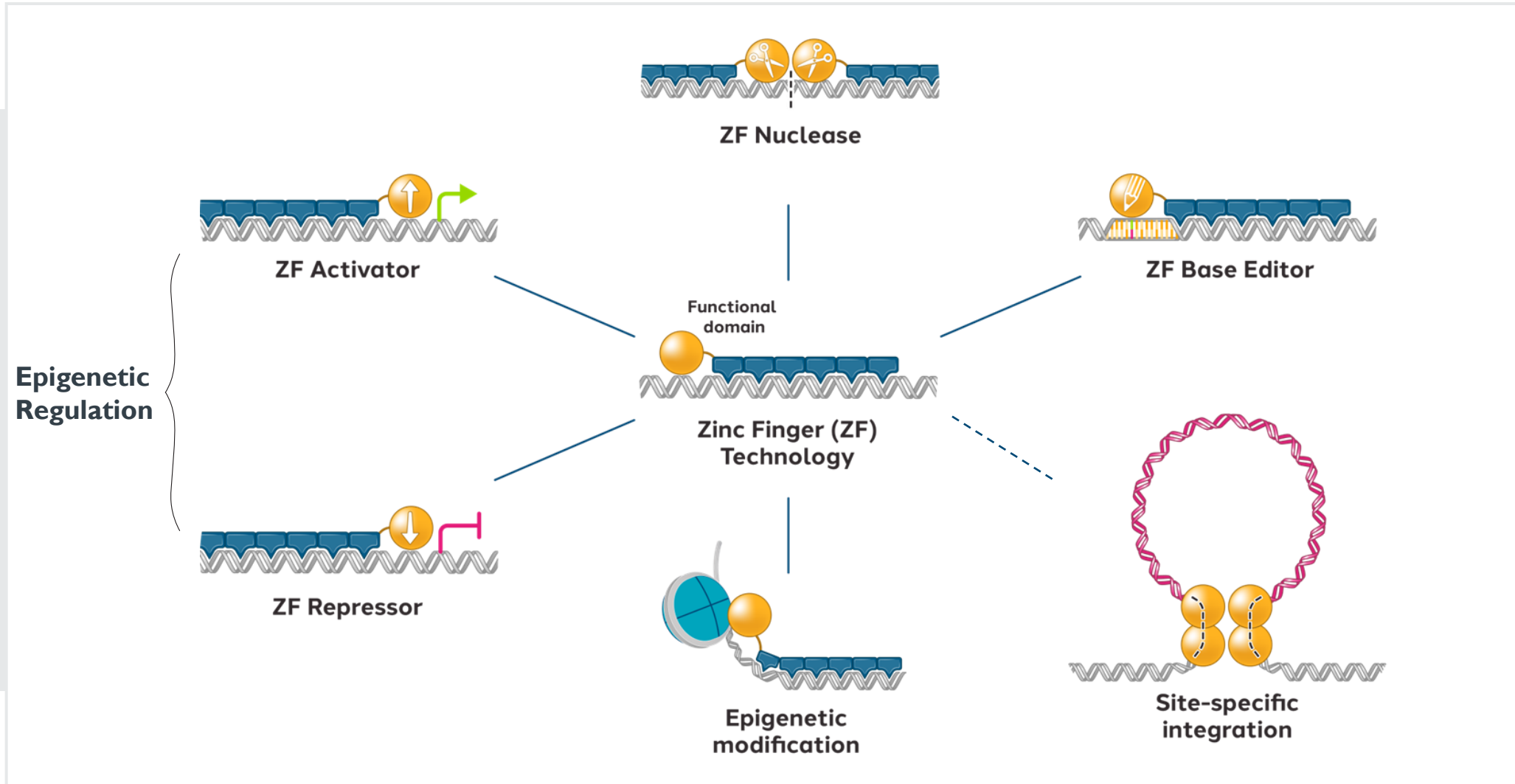
Widespread zinc-finger 'cargo' delivery – via both intravenous AND intrathecal delivery



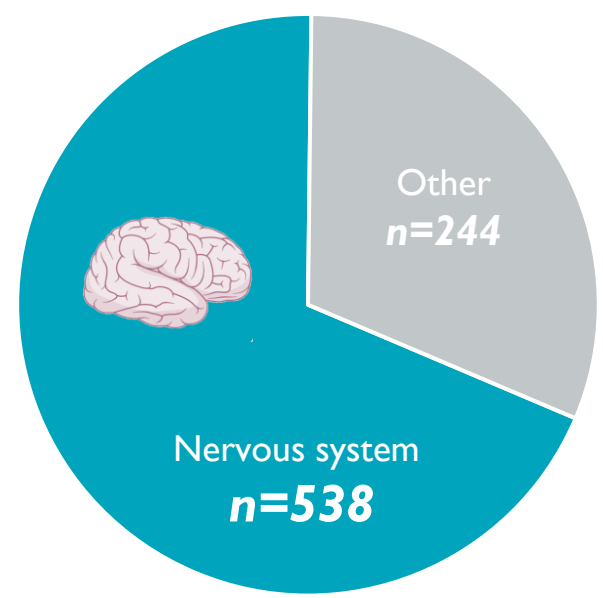
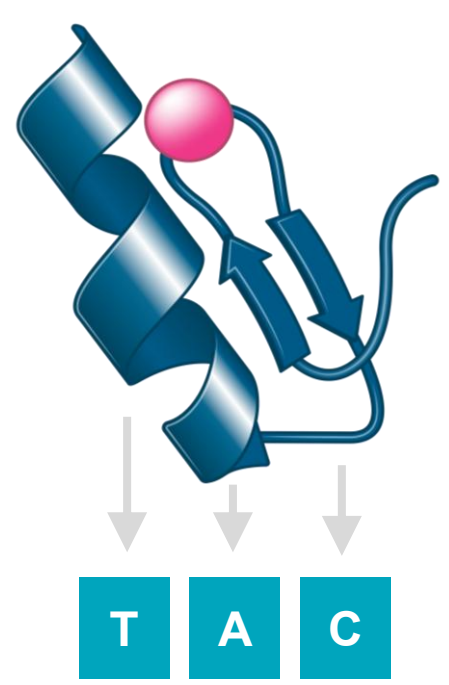
## Industry Leading CNS Tropism



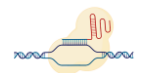
Robust penetration of the blood-brain barrier and widespread brain distribution in NHPs

## Sangamo's differentiated genomic engineering platform is flexible, creating specific tools for the needs of each target



# Zinc finger epigenetic regulators are the ideal cargo for neurology-focused genomic medicines



	 ZFR/ZFA	 ASO	 CRISPR
Single administration	✓	✗	✓
Human derived	✓	✗	✗
Target any sequence	✓	✗	✗
Cell-type specificity	✓	✗	~
Compact / multiplexing	✓	~	✗
Supplement with cDNA	✓	✗	✗
All RNA / protein forms	✓	~	✓
Allele specific	✓	✗	~

Zinc Fingers are natural proteins that bind DNA with high specificity
















At least 782 human genes encode Zinc Finger Proteins

Most regulate the epigenetic state of other genes


Zinc fingers are differentiated in key therapeutic features for potentially treating neurologic diseases

n=782 C2H2 ZF-containing genes  
Sources: Ensembl human genes; GTEx: CNS (>5 TPM)  
ASO: antisense oligonucleotide

# Sangamo's neurology portfolio provides opportunities for wholly owned program advancement and potential partnering opportunities

<b>WHOLLY OWNED PRIORITY PROGRAMS</b>	<b>Chronic Neuropathic Pain</b> <b>Nav1.7</b> 	<b>Prion Disease</b> <b>PRNP</b> 					
<b>CURRENTLY PAUSED CARGO PROGRAMS ENABLED BY STAC-BBB</b>	<b>Phelan-McDermid Syndrome</b> <b>SHANK3</b> 	<b>Dravet Syndrome</b> <b>SCN1A</b> 	<b>Myotonic Dystrophy Type I</b> <b>DMPK</b> 	<b>ALS</b> <b>SOD1</b> 	<b>Charcot Marie Tooth 2A</b> <b>MFN2</b> 	<b>Charcot Marie Tooth 1A</b> <b>PMP22</b> 	<b>Haploinsufficiency Syndrome</b> <b>SCN2A</b> 
<b>PARTNERED PROGRAMS</b>	<b>ALS</b> <b>C9orf72</b> 	<b>Huntington's Disease</b> <b>HTT</b> 	<b>Tauopathies</b> <b>MAPT</b> 	<b>Undisclosed neurology</b> 	<b>Undisclosed neurology</b> 	<b>Undisclosed CNS</b> 	

ALS: Amyotrophic Lateral Sclerosis; CMT: Charcot-Marie Tooth

 Cerebrospinal fluid (CSF) capsid

 Intravenous (IV) capsid





# Epigenetic regulation to address chronic neuropathic pain

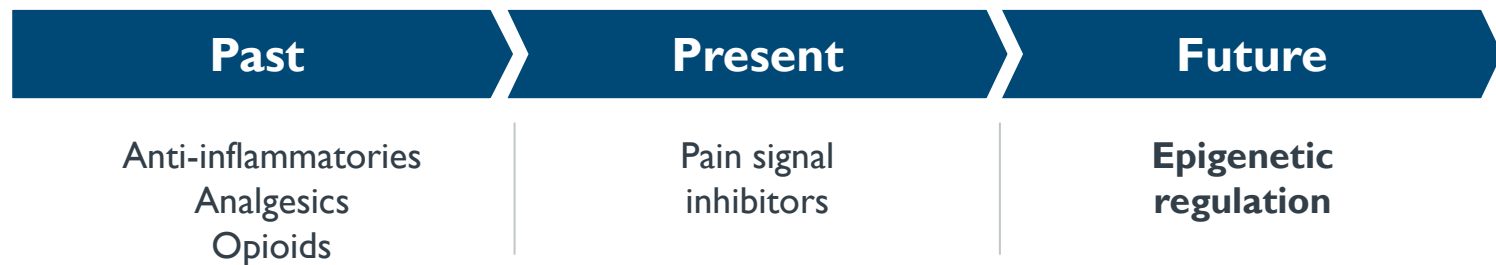
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# The urgent need for novel chronic neuropathic pain therapeutics



## Epigenetic regulation

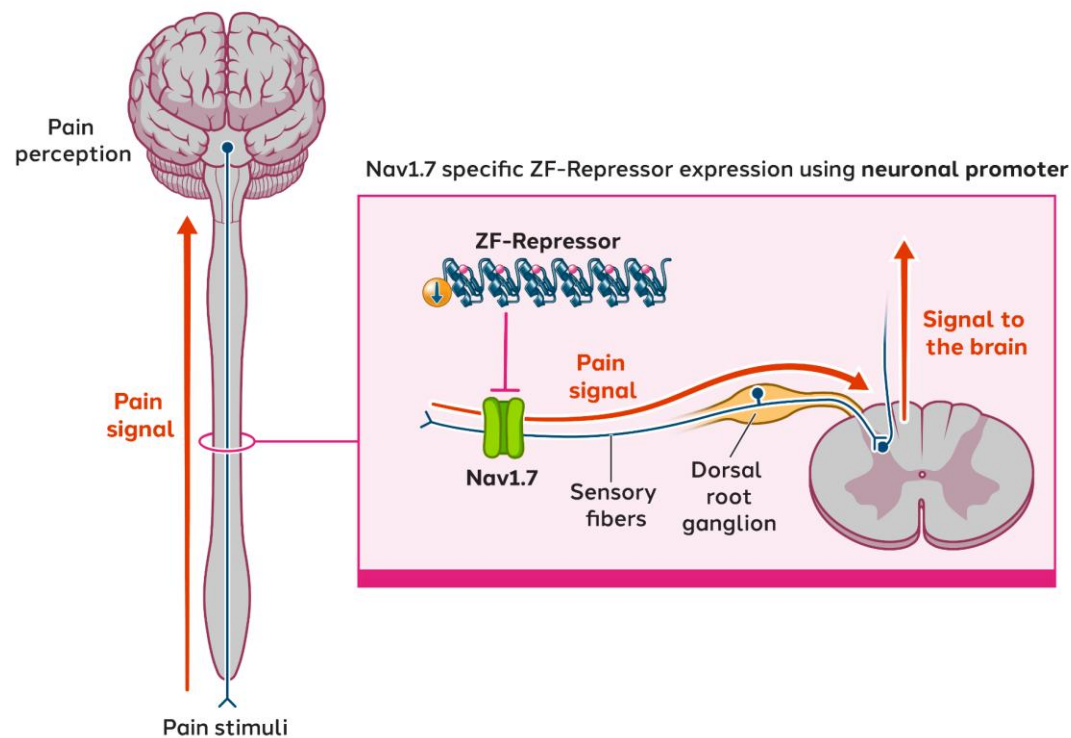
has the potential to fundamentally reshape the treatment of intractable pain



- > ST-503 is an **investigational epigenetic regulator** for the treatment of **intractable, chronic neuropathic pain**
- > **Peripheral neuropathies** are estimated to affect **~40 million Americans**
- > Our **first study** assesses ST-503 in **idiopathic small fiber neuropathy (iSFN)**, a type of chronic neuropathic pain
- > iSFN is a **chronic, highly debilitating** pain syndrome, with an estimated prevalence of at least **43,000 patients in the U.S**
- > **High unmet medical need**, with insufficient current treatment options (anticonvulsants, opioids and topical therapies)
- > **Short timescale** to expected clinical efficacy readout
- > **Gateway indication:** if successful, ST-503 could be **broadened** to other types of **chronic neuropathic pain**

# Targeting the Nav1.7 pathway at the DNA level, we seek to succeed where others have failed

**ST-503 targets a gene validated by human genetics and leverages an AAV delivery capsid already in the clinic**



- A significant body of evidence implicates **sodium channels** in mediating the **pathophysiology of neuropathic pain**
- **Nav1.7** is a voltage gated sodium channel expressed in the Dorsal Root Ganglion (DRG)
- Blocking Nav1.7 in the DRG is expected to prevent the **transmission of nociceptive pain signals** to the brain
- This allows us to target multiple **neuropathic pain indications**, regardless of the cause of the pain
- Reducing pain by inhibiting Nav1.7 is not predicted to be associated with **any neurological side effects**
- Administered **intrathecally via AAV9**, a well-established, well-tolerated capsid

# Zinc finger repressors potently reduced Nav1.7 in human neurons with high level of specificity



iPSC-derived  
neurons

+

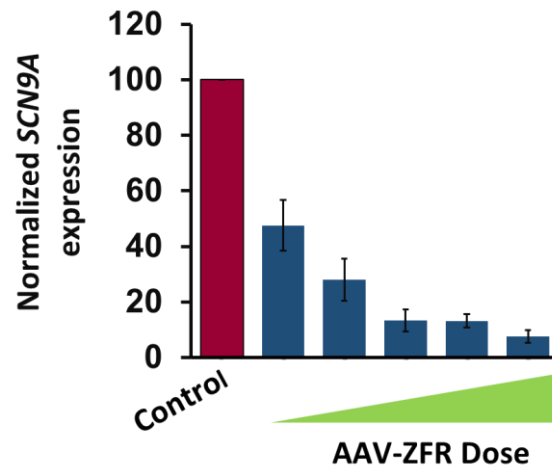


AAV + ZFR

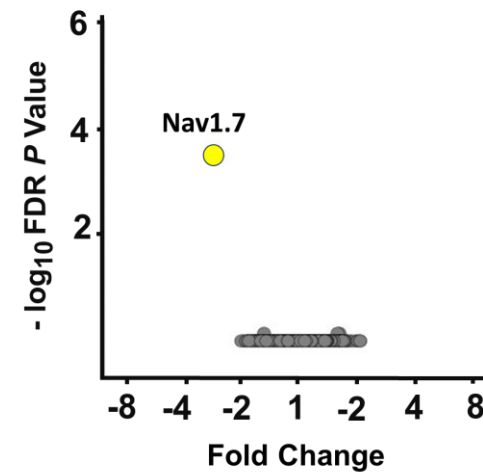
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Nav1.7 expression,  
Off-target  
assessment

Potent and dose-dependent  
repression of *SCN9A* gene,  
which encodes Nav1.7

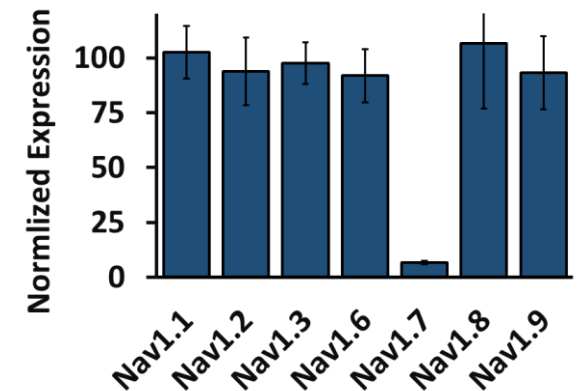


Selective repression  
of *SCN9A* as shown  
by global transcriptome analysis



Differential expression of  
20,000 genes was evaluated

Specific repression of Nav1.7  
without impacting other sodium  
channels



Data presented at ASGCT 2023



# Nav1.7 repressor reversed neuropathic pain in preclinical mouse models



Intrathecal  
lumbar injection



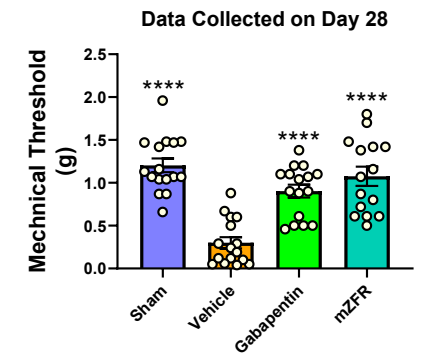
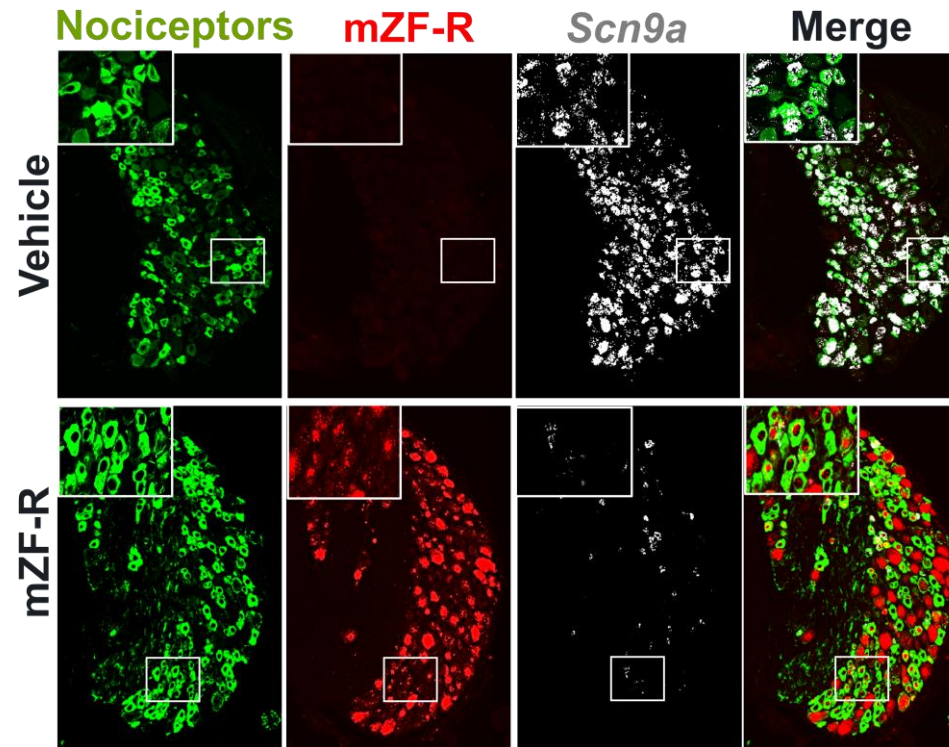
AAV-mZFR



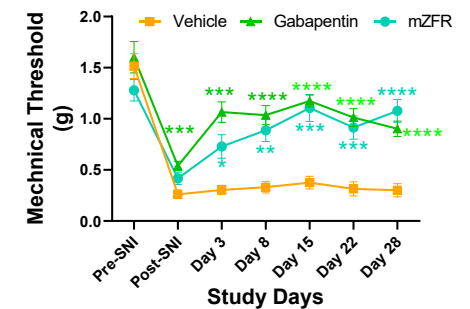
Nav1.7 expression,  
Pain assessment

Potent *Scn9a* mRNA repression in mouse  
Lumbar DRG nociceptors

Full restoration of normal  
sensitivity to mechanical pain



Surgery induced  
neuropathic pain



mZFR: mouse ZFR

# Potent and selective repression of *SCN9A* observed in NHPs, with no clinical signs of toxicity or adverse clinical pathology



Intrathecal lumbar injection

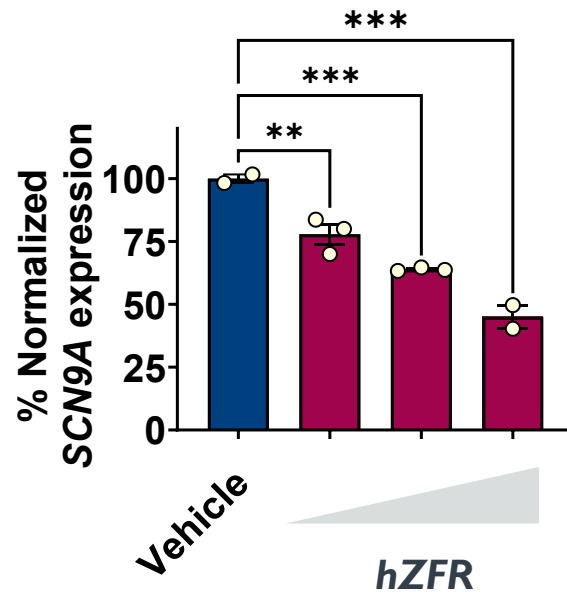


AAV-hZFR

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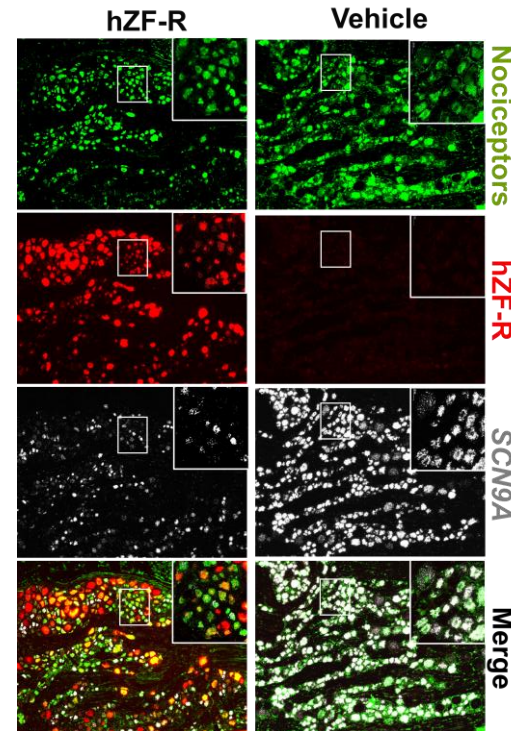
Nav1.7 expression

Potent and dose-dependent repression of *SCN9A* gene, which encodes Nav1.7

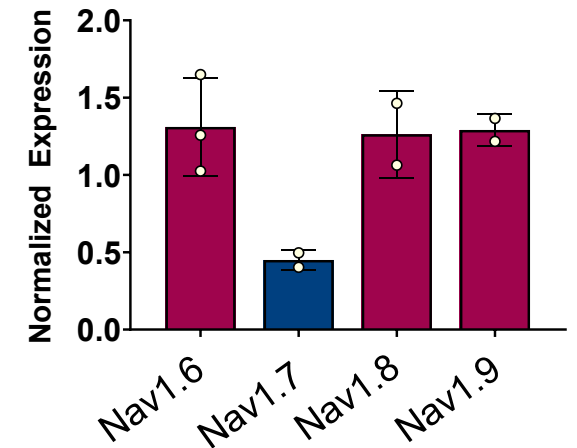


Comparable data were obtained in other DRG levels

Selective repression of *SCN9A* as shown by single cell analysis



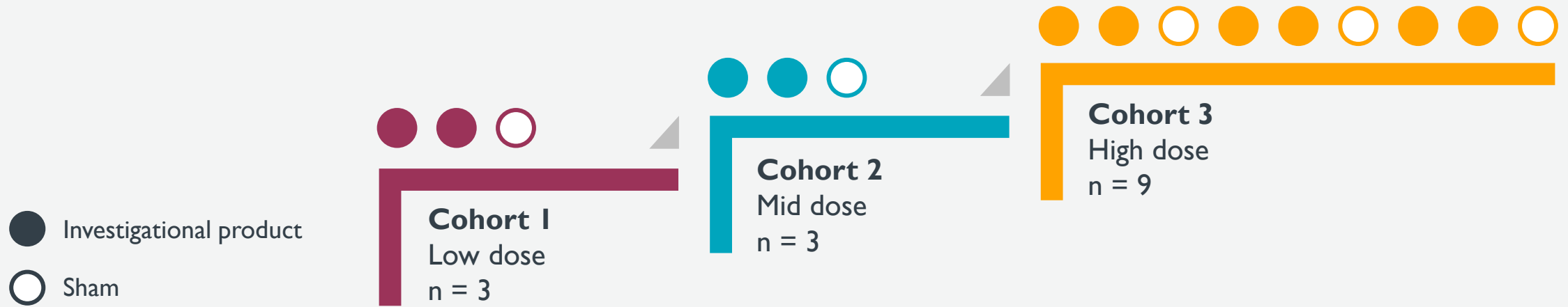
Specific repression of Nav1.7 without impacting other sodium channels



Comparable data were obtained in other DRG levels

hZFR: human ZFR

# First clinical site has been initiated, with preliminary proof of efficacy data anticipated in Q4 2026



- > FDA **clearance of IND** received November 2024 to assess **ST-503** in **iSFN** patients
- > Preparing for **double-blind, randomized, sham-controlled dose escalation** study to determine safety and tolerability of single dose **intrathecal ST-503** gene therapy
- > Dose escalation protocol with a **2:1 randomization** of investigational product to sham
- > **First clinical site initiated** in Phase I/2 STAND study. Anticipate dosing first patient **in the fall of 2025**.
- > Anticipate preliminary **proof of efficacy data in Q4 2026**

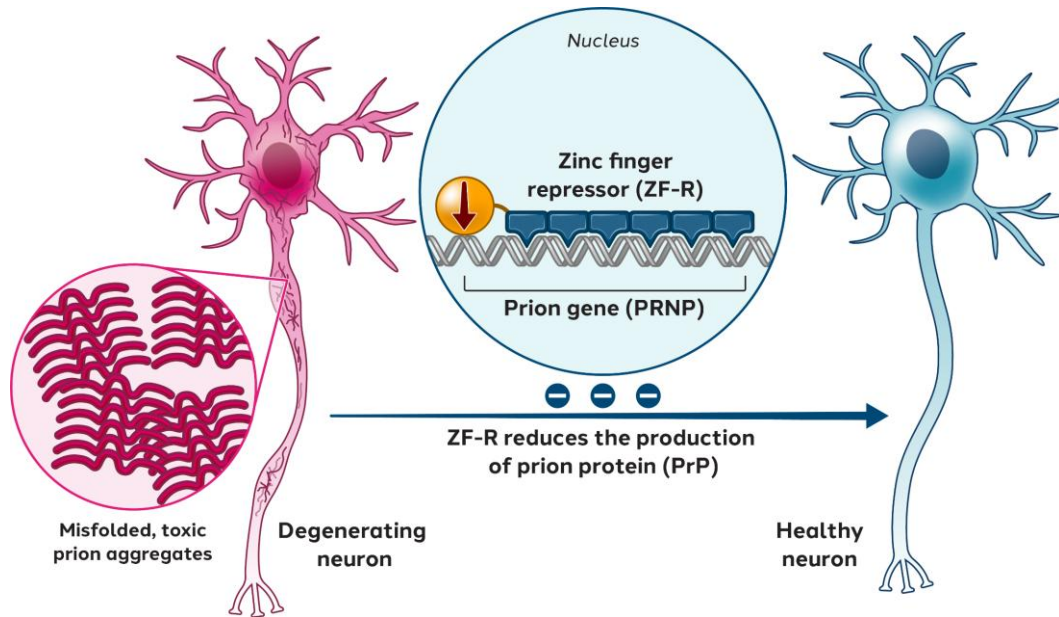


# Epigenetic regulation to address prion disease, leveraging STAC-BBB

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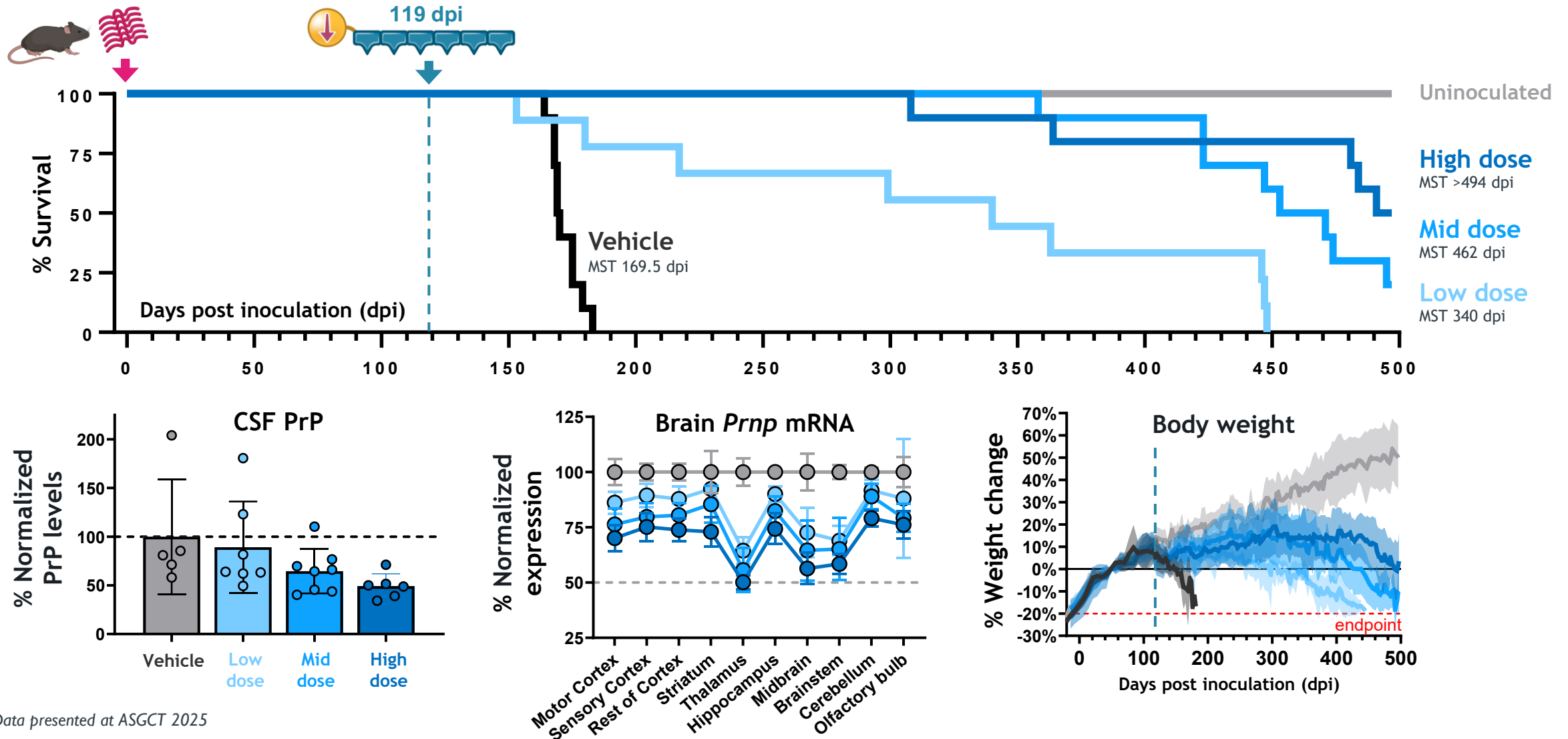
# Prion disease is rapidly progressive and always fatal

## Path to potential clinical validation in a devastating disease with no current approved treatment options



- Progressive condition, with **no disease modifying therapy**
- Caused by the misfolding of the prion protein (PrP) into toxic species, **leading to neurodegeneration and death**
- At least **1,300 new cases** each year in **U.S. and Europe\***
- **Sporadic, inherited and acquired** forms
- **Well-defined** patient population
- **Excellent fit** for a zinc finger repression approach
  - Prion knockout animals do not get disease
  - Prion reduction can delay disease
- Repression of prion expression in the brain **should slow or halt disease progression and neurodegeneration**
- **First-in-human** trial of **STAC-BBB** capsid, which if successful, could validate broader wholly owned and partnered programs

# Zinc finger repressors extended survival in a mouse model of aggressive prion disease, even when administered post-symptomatically



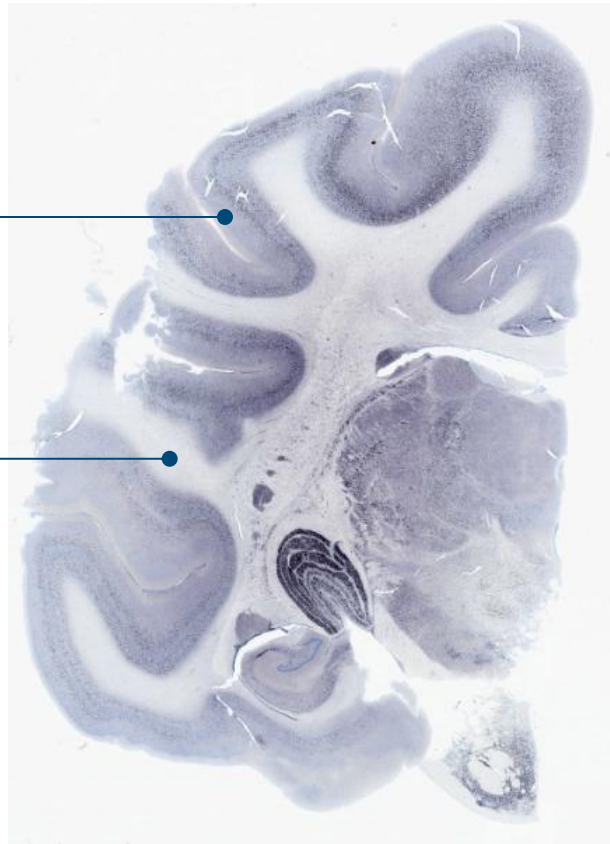
Data presented at ASGCT 2025



# STAC-BBB demonstrated widespread and robust expression throughout the nonhuman primate brain

## STAC-BBB

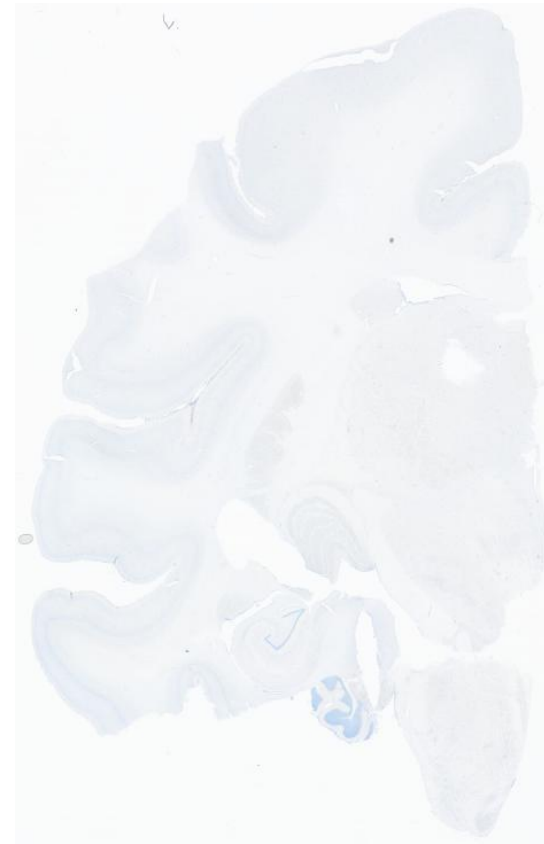
(Nuclear-localized GFP)



2e13 vg/kg STAC-BBB, 19 days post administration

## Negative control

(no AAV treatment) – No signal



*Nissl staining (light blue):*

**All cell nuclei**

*Antibody labeling  
for green fluorescent protein  
(GFP) expression (black):*

**Cells transduced  
with STAC-BBB**



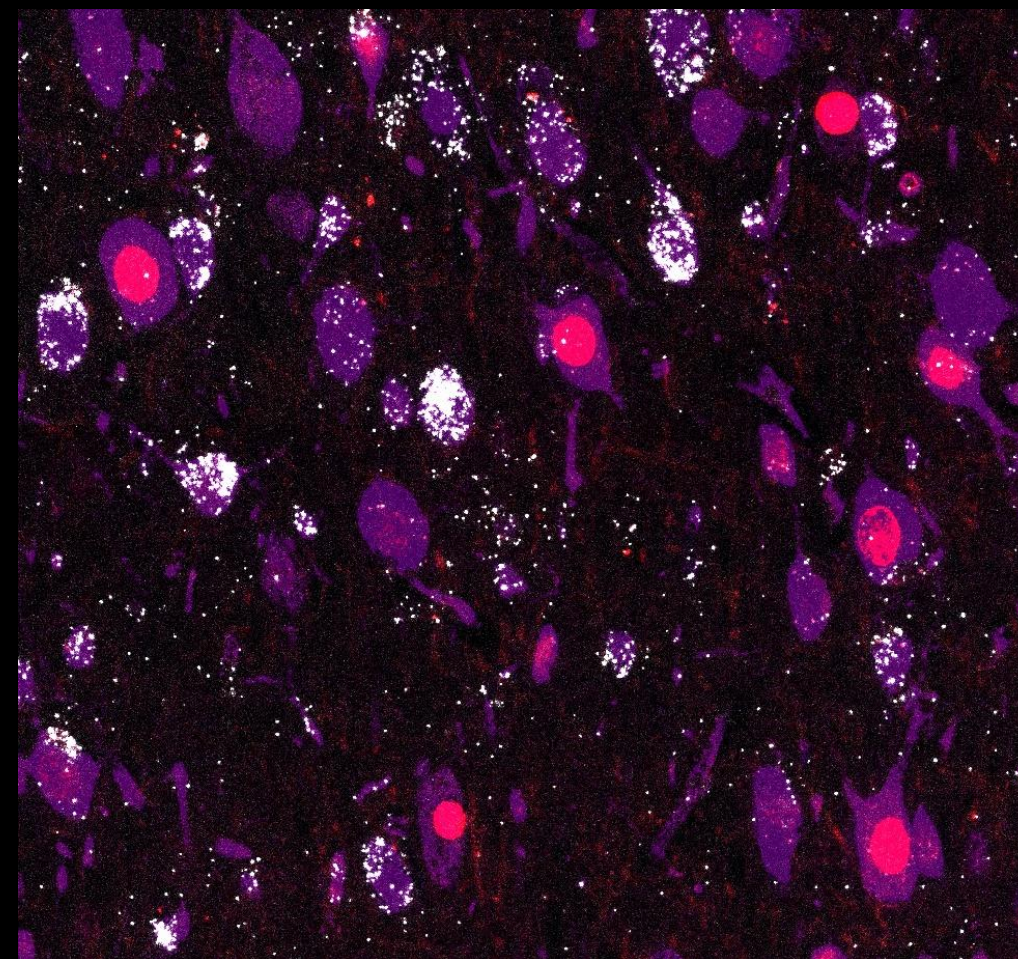
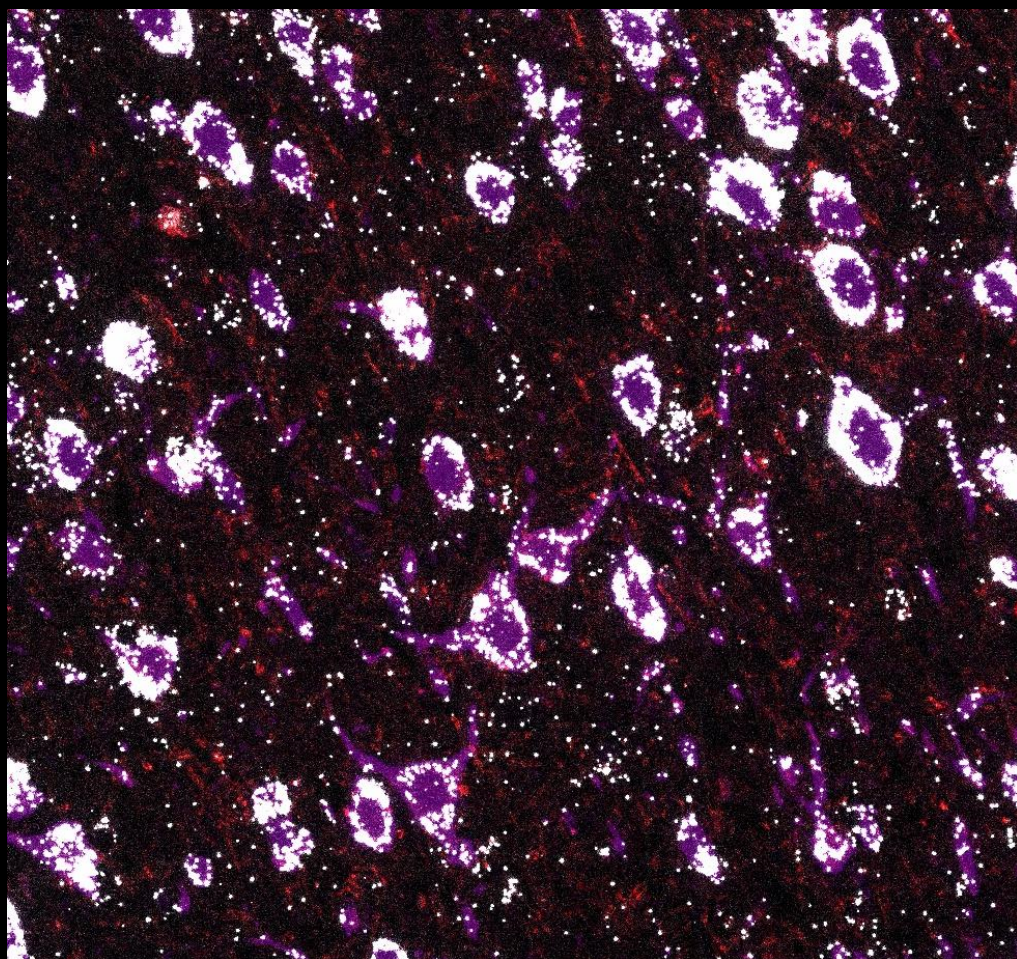
# STAC-BBB mediated ZFR expression and Prion repression in the NHP brain

ZFR+ cells (GFP)  
Neurons (NeuN)  
Prion mRNA

Vehicle Control

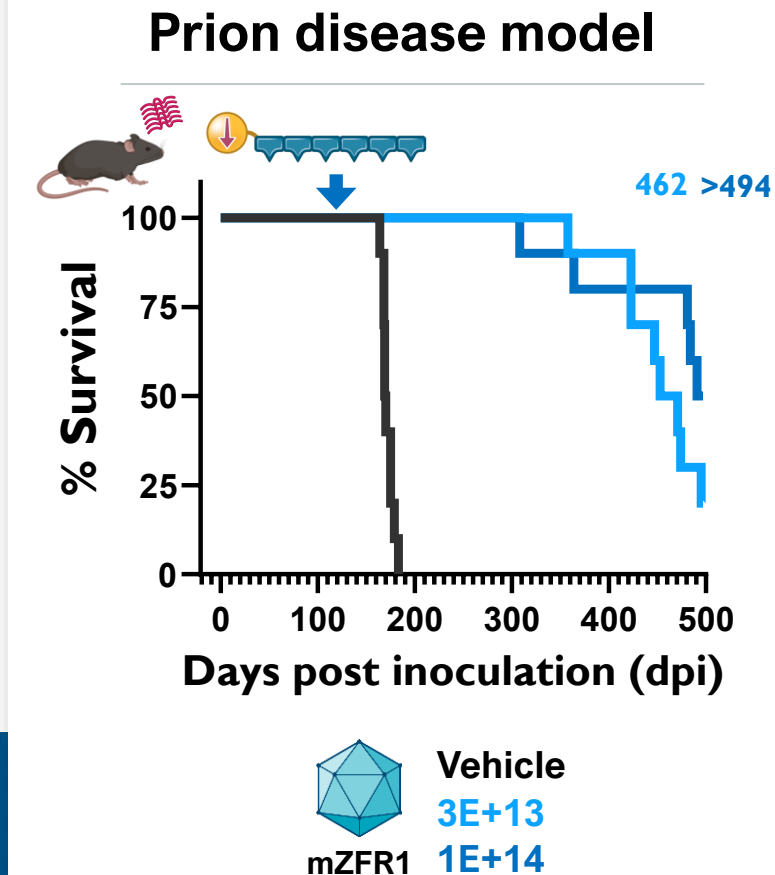
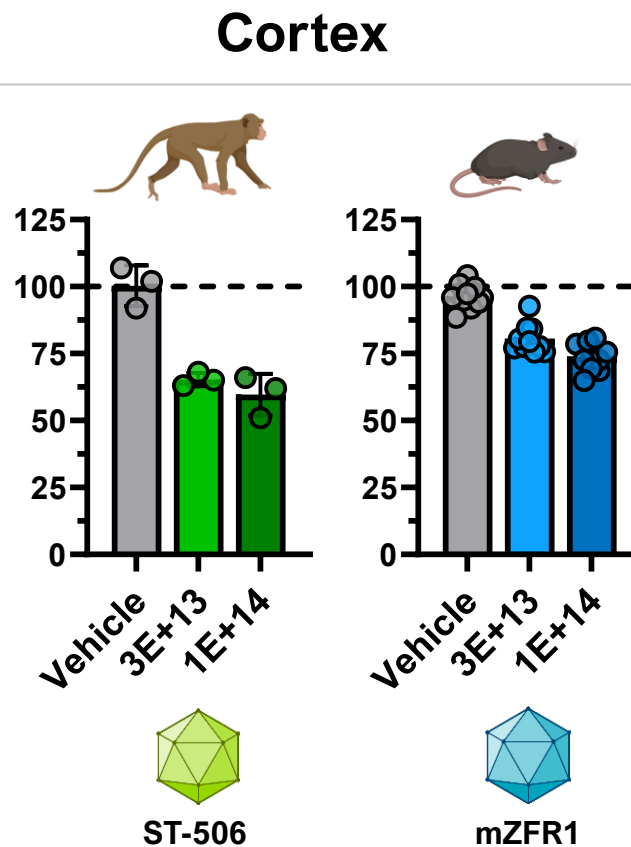
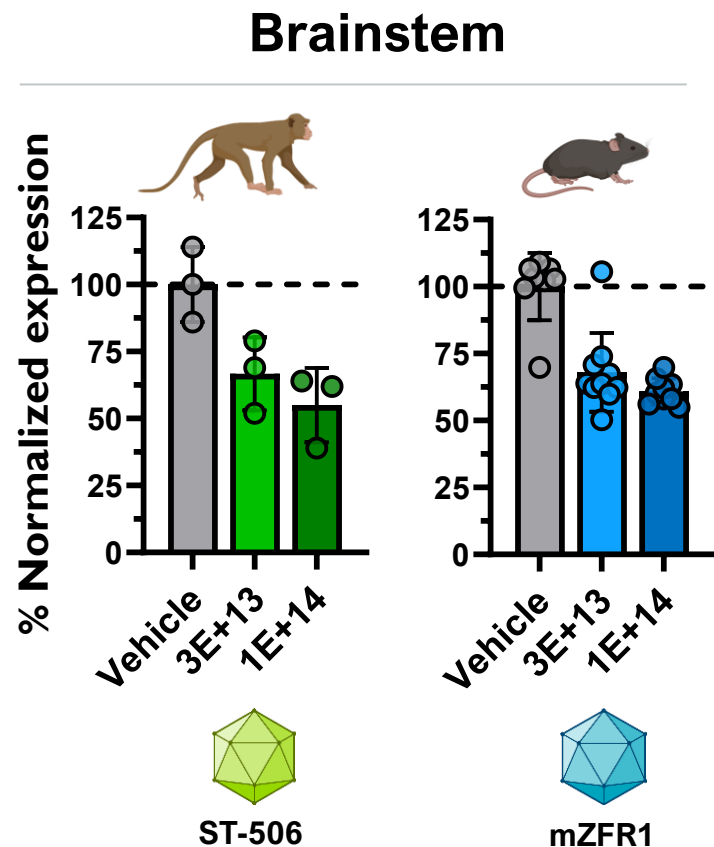
Motor cortex

STAC-BBB





## ST-506 mediated prion repression in NHPs that matched or exceeded levels associated with profound survival extension in mice



**ST-506 was safe at both dose levels, with no adverse safety findings in any tissue**

# Phase 1/2 CTA-enabling activities and clinical study preparations are ongoing

Item	Category criteria	Score
Bowel function	At least one episode of incontinence in last 7 days	0
	Continent for last 7 days	1
Bladder function	Always incontinent or catheterized	0
	Continent or occasional accidents	1
Toilet use	Fully dependent	0
	Needs some help	1
	Independent	2
Bathing	Fully dependent or needs some help	0
	Independent	1
Feeding	Unable or NG/PEG/RIG fed (takes nothing by mouth)	0
	Needs help but can swallow (even if unsafe)	1
	Independent	2
Transfers and mobility	Bedbound, unable to sit	0
	Can sit, but cannot mobilize or transfer without help (from person or walking aid)	1
	Can transfer or mobilize independently or both	2
Stairs	Unable	0
	Needs help	1
	Independent	2
Best verbal response	Mute	0
	Incomprehensible sounds	1
	Single words	2
	Sentences, but difficulty in finding words, uses incorrect words or is often disoriented/confused	3
	Normal conversation	4
Memory and orientation to surroundings	Shows no awareness of surroundings or any evidence of memory	0
	Evidence of retaining some highly learned material (e.g. recognizing familiar people) or awareness of surroundings but no evidence of acquiring new material	1
	Able to retain some new information but memory consistently impaired	2
	Memory normal or some impairment off and on	3
Judgement and problem solving	Unable to show any judgement or problem-solving	0
	Able to show some judgement or problem-solving, even if this is severely impaired	1
Use of tools	Unable to use any tools or objects	0
	Able to use some tools or objects, with help if necessary	1

NG = nasogastric; PEG = percutaneous endoscopic gastrostomy; RIG = radiologically inserted gastrostomy.

MRC Prion Disease Rating Scale

- > **CTA submission** anticipated as early as **mid-2026**
- > Clinical study expected to be a **Bayesian Optimal Interval (BOIN) design** to assess safety and efficacy, while potentially enabling rapid escalation to maximum tolerated dose
- > Study will use the **MRC prion disease rating scale** to assess efficacy of the ZFR and **compare to matched historic controls**
- > **Aim is to delay progression of disease**, offering potential for meaningful extension of survival
- > Plan to initiate clinical study in **late-2026**
- > Anticipate **preliminary clinical data in mid-2027**

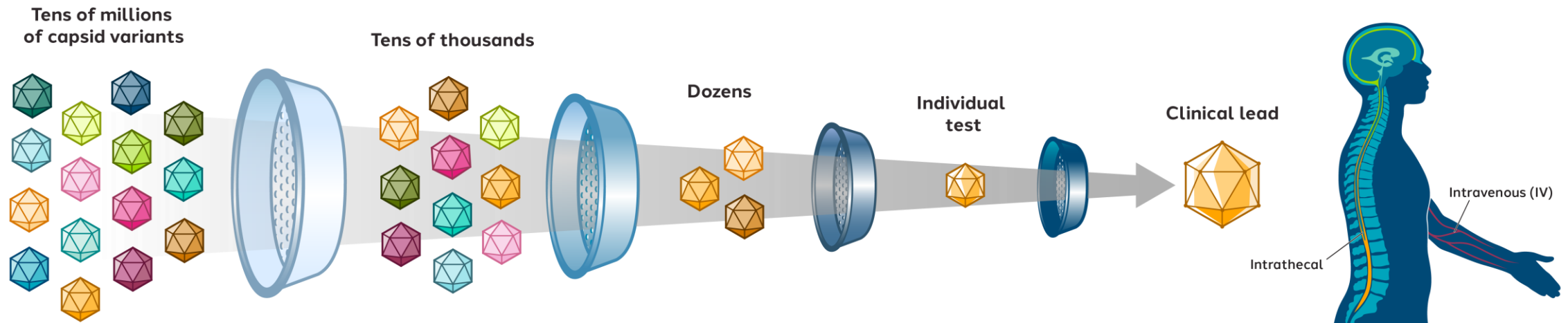


# Achieving Widespread Central Nervous System Delivery for Optimal Therapeutic Benefit

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Widespread CNS delivery is challenging with conventional AAVs. Our SIFTER platform is designed to enable the selection of neurotropic AAV capsids to potentially advance our innovative preclinical programs to the clinic.

### SIFTER Platform AAV Capsid Engineering



*SIFTER: Selecting In vivo For Transduction and Expression of RNA*



## Sangamo STAC-BBB findings exceeded expectations for a successful blood-brain barrier penetrant capsid

- ✓ STAC-BBB achieved robust penetration of the blood-brain barrier and widespread distribution throughout the brain in NHPs
- ✓ Industry-leading performance: 700-fold better enrichment than the benchmark AAV9
- ✓ Appears to primarily target neurons regardless of promoter
- ✓ Results are consistent across individual animals and groups
- ✓ Enabled robust expression of zinc-finger cargo throughout the brain, including all key brain regions
- ✓ Vector genomes are enriched in the CNS and appear de-targeted from the DRG and the liver
- ✓ We believe STAC-BBB is manufacturable at scale

**In vivo library evaluation in cynomolgus macaques identified STAC-BBB as the top performing BBB-penetrant capsid, with additional enhancements in progress**

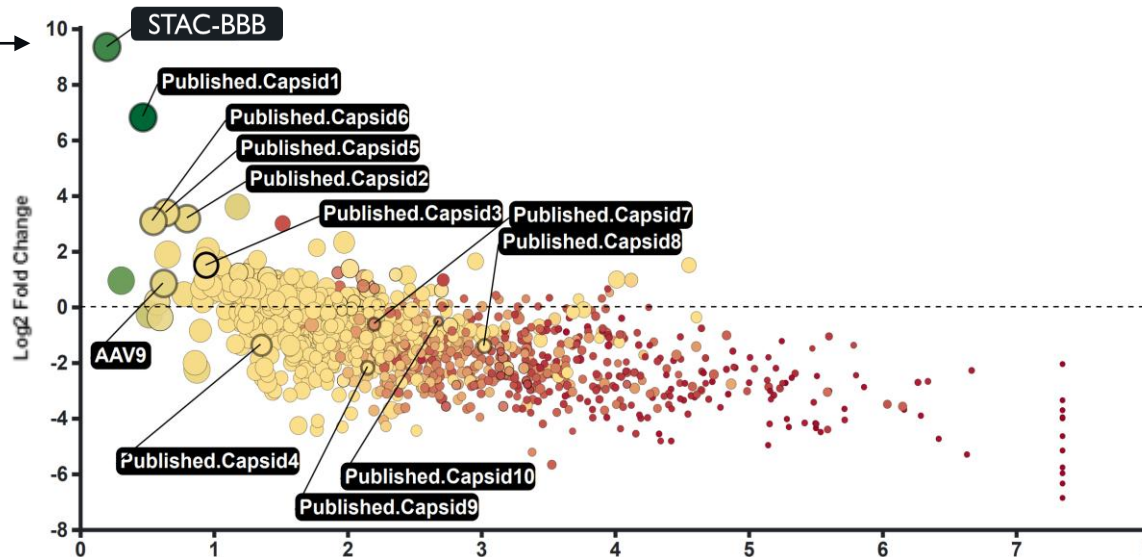
## Capsid-mediated expression of cargo in neurons

644-fold enrichment in brain →

**Log<sub>2</sub> Fold Change (Y-axis):**

Enrichment score relative to the administered library

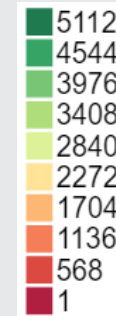
**Larger value is better**



Variation in performance across tissue samples that were evaluated  
**Smaller value is better**



**WHOLE BRAIN ASSESSMENT**



**Unique Molecular Identifier count (Color):**  
Informs number of unique AAV transduction events  
**Darker green is better**

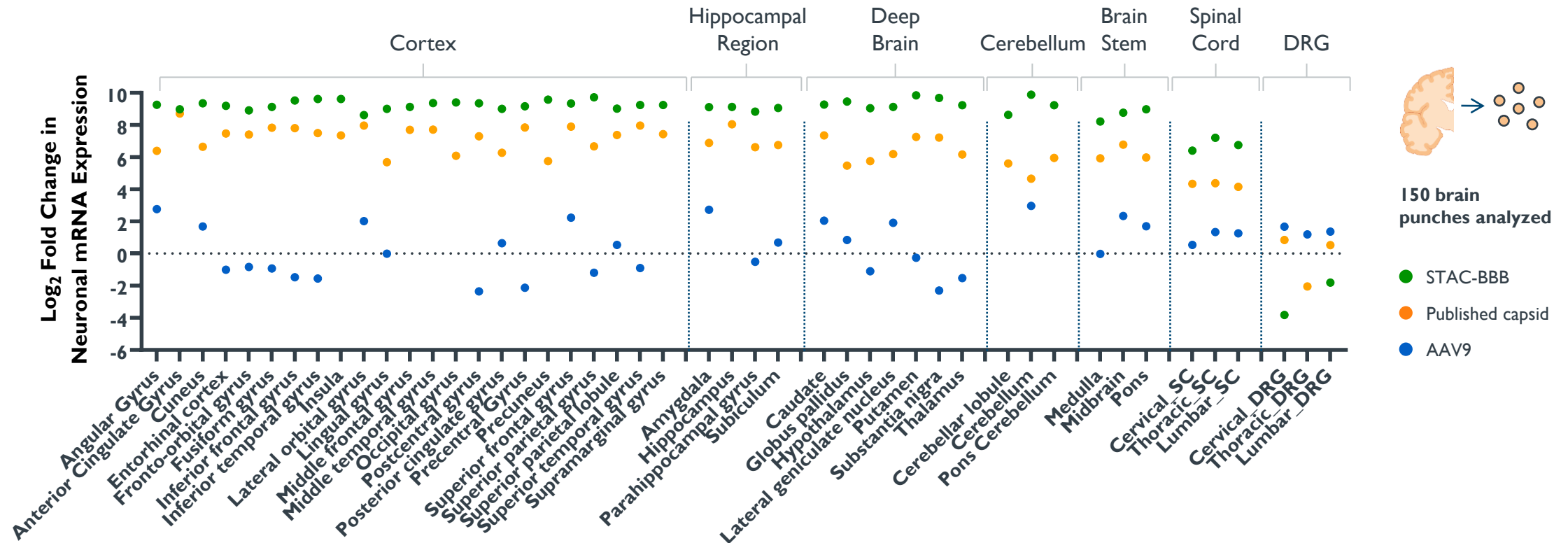


**Fraction of replicates found (Bubble size):**  
Informs consistency of replicate recovery  
**Larger circle is better**

Neuronal RNA expression (3-week study, hSyn I)

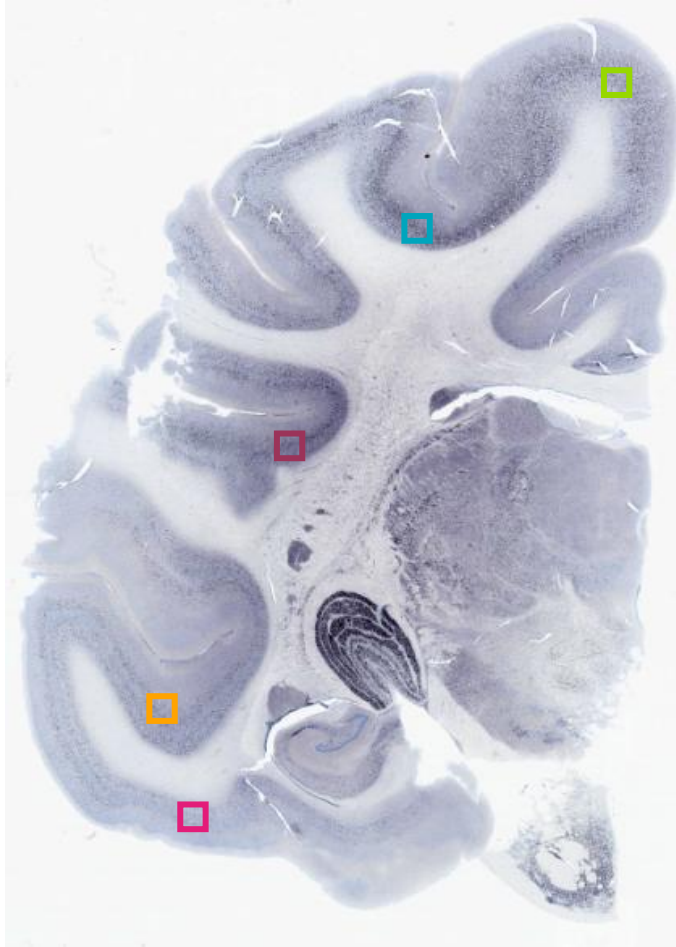
# STAC-BBB was enriched in neuronal RNA expression in all CNS regions

## Capsid-mediated expression of cargo in neurons

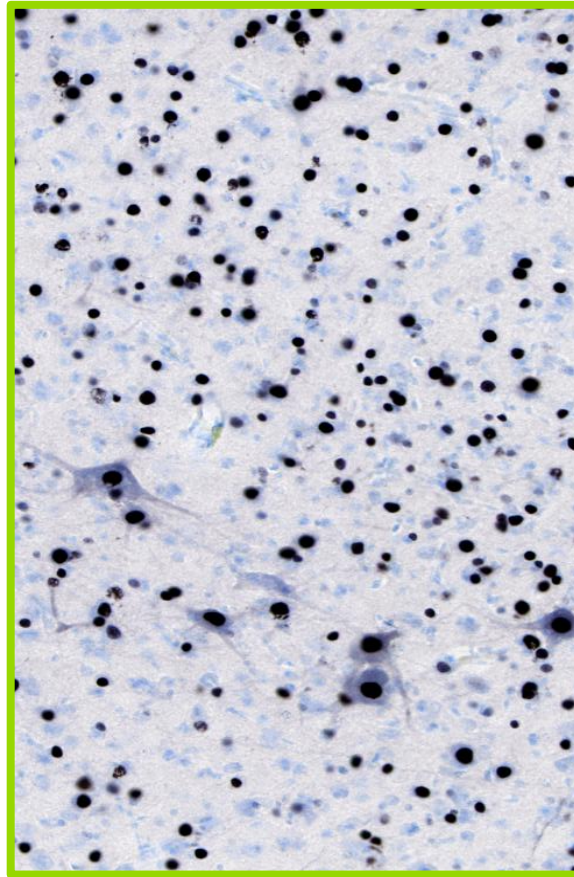


Neuronal RNA expression (3-week study, hSyn I)

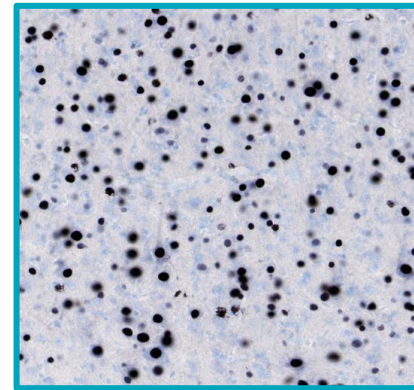
# STAC-BBB showed widespread neuronal transduction across all cortical regions



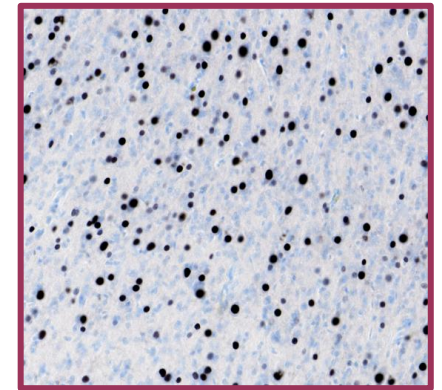
Precentral Gyrus (Motor Cortex)



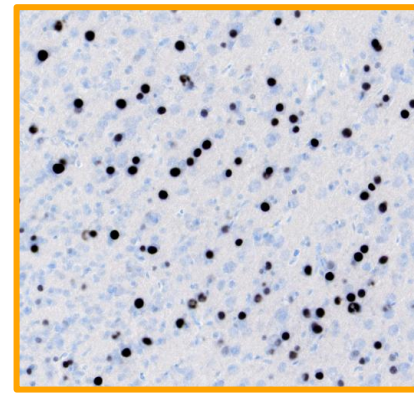
Postcentral Gyrus



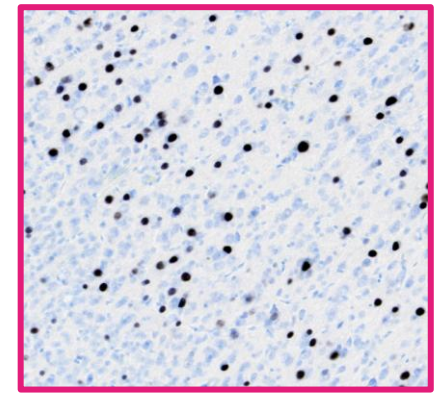
Superior Temporal Gyrus



Middle Temporal Gyrus



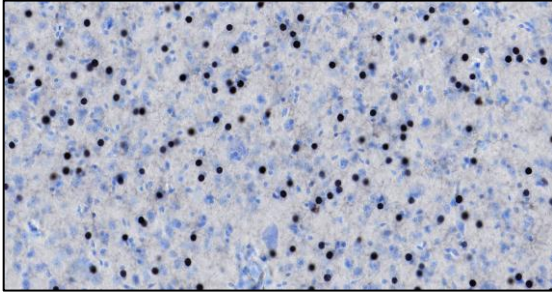
Inferior Temporal Gyrus



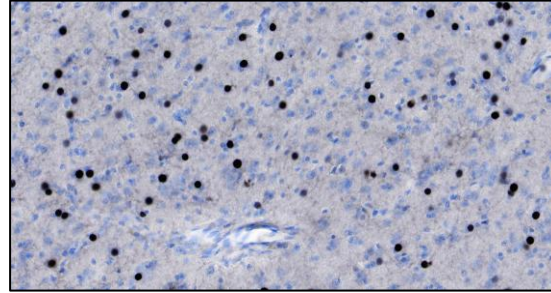


# STAC-BBB mediated widespread brain transduction

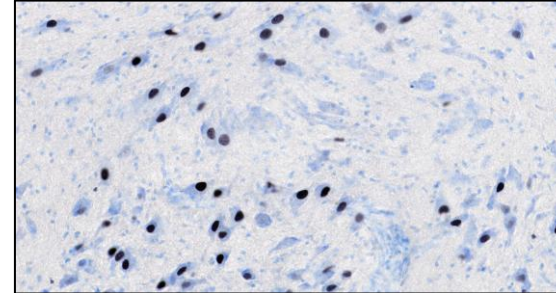
Putamen



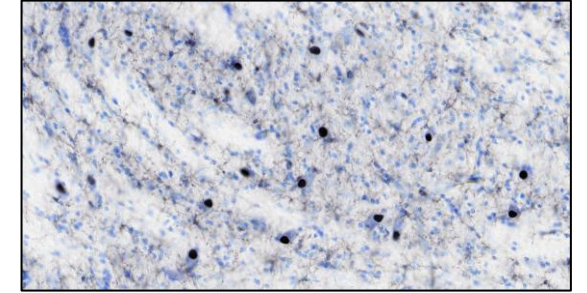
Caudate



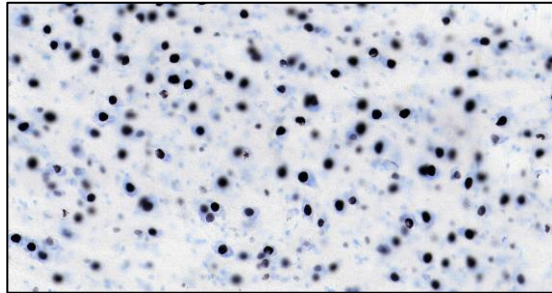
Substantia nigra



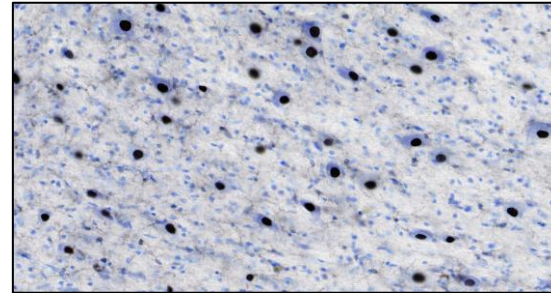
Globus pallidus



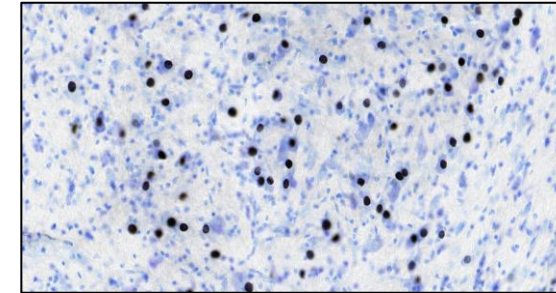
Pons



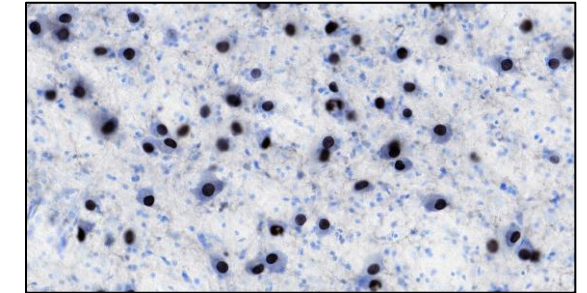
Dentate nucleus



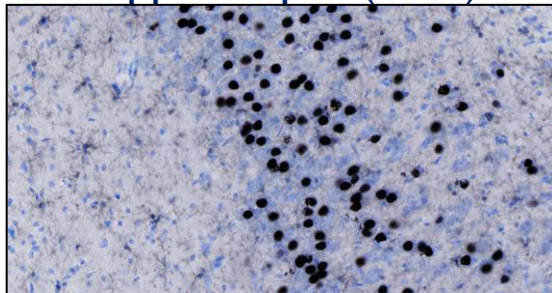
Cuneate nucleus



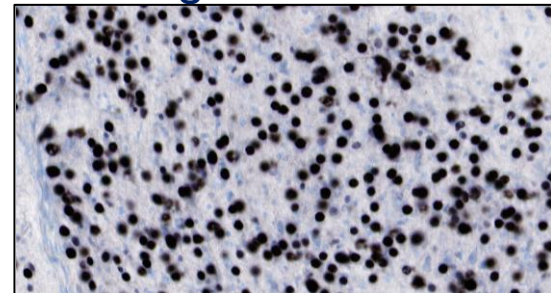
Thalamus



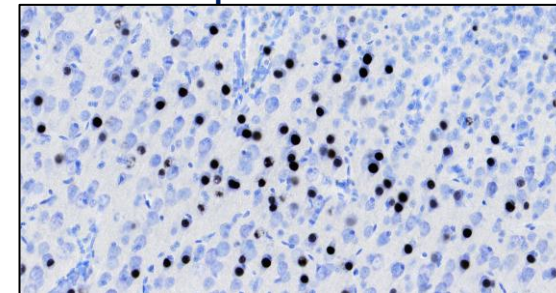
Hippocampus (CA2)



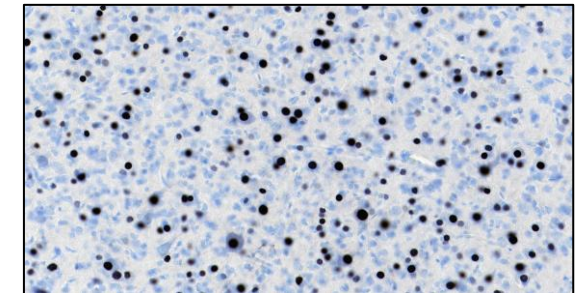
Lateral geniculate nucleus



Temporal cortex



Motor cortex





# Neurons were widely transduced in regions integral to disease pathology

Putamen



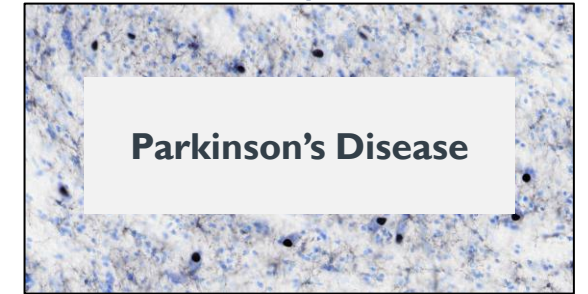
Caudate



Substantia nigra



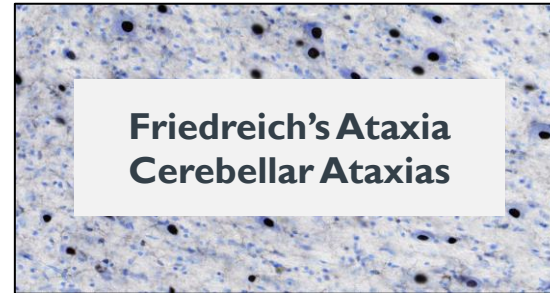
Globus pallidus



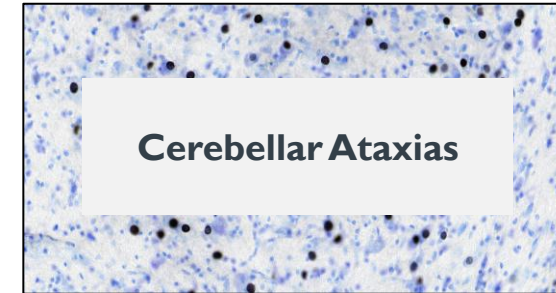
Pons



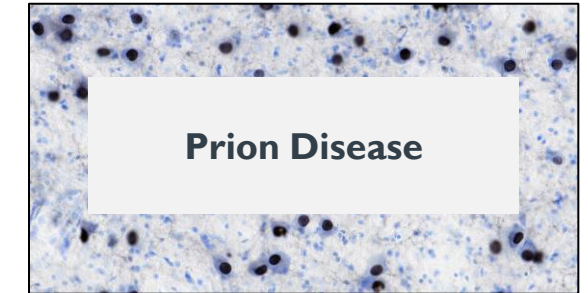
Dentate nucleus



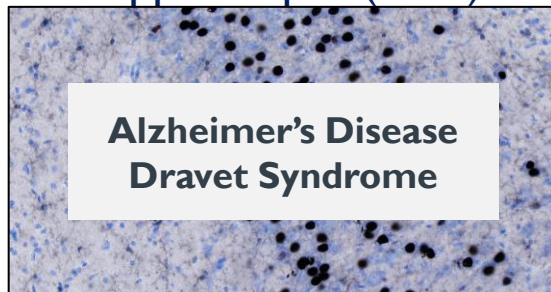
Cuneate nucleus



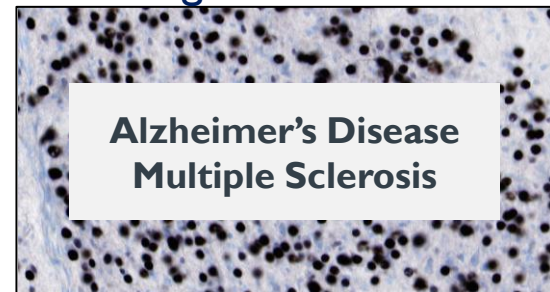
Thalamus



Hippocampus (CA2)



Lateral geniculate nucleus



Temporal cortex



Motor cortex






## — We believe STAC-BBB is manufacturable at scale

- Capsid manufacturability is critical to create a successful potential commercial drug product for patients
- We believe STAC-BBB is:
  - Manufacturable at commercial scale using standard cell culture and purification processes
  - Soluble using known excipients
  - Can be characterized using available analytics
- We have successfully manufactured up to 50-liter scale, and further scale up to 500-liter is in progress





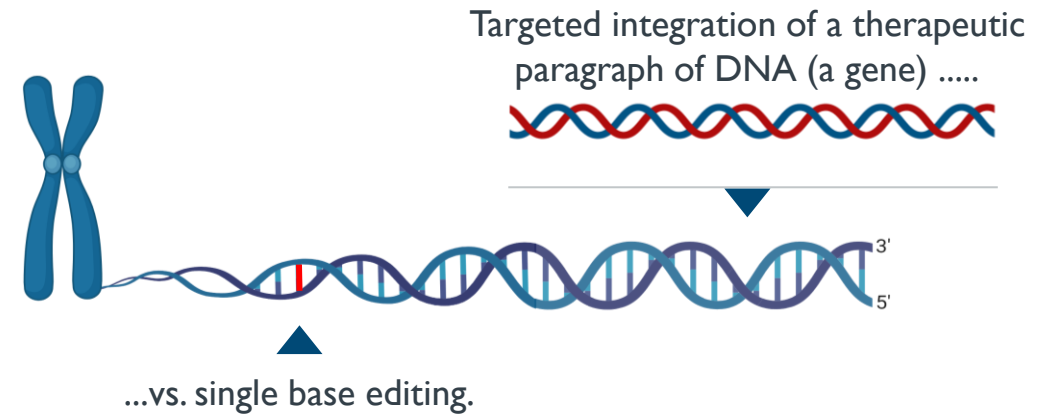
# Advancing Next-Generation Genome Engineering

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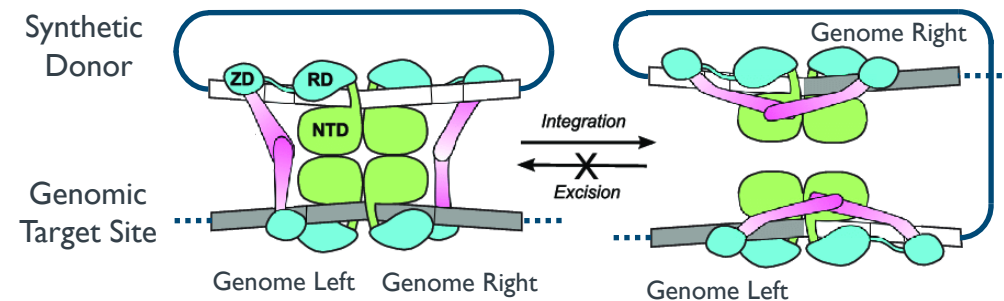
# What is an integrase and why is it important?

## Targeted integration enables large-scale genome editing

- ✓ Capable of delivering large payloads - 10 kb+
- ✓ No copying required - low error rate
- ✓ Self sufficient - no dependence on cell DNA repair machinery
- ✓ No DNA breaks - reduced translocation risk



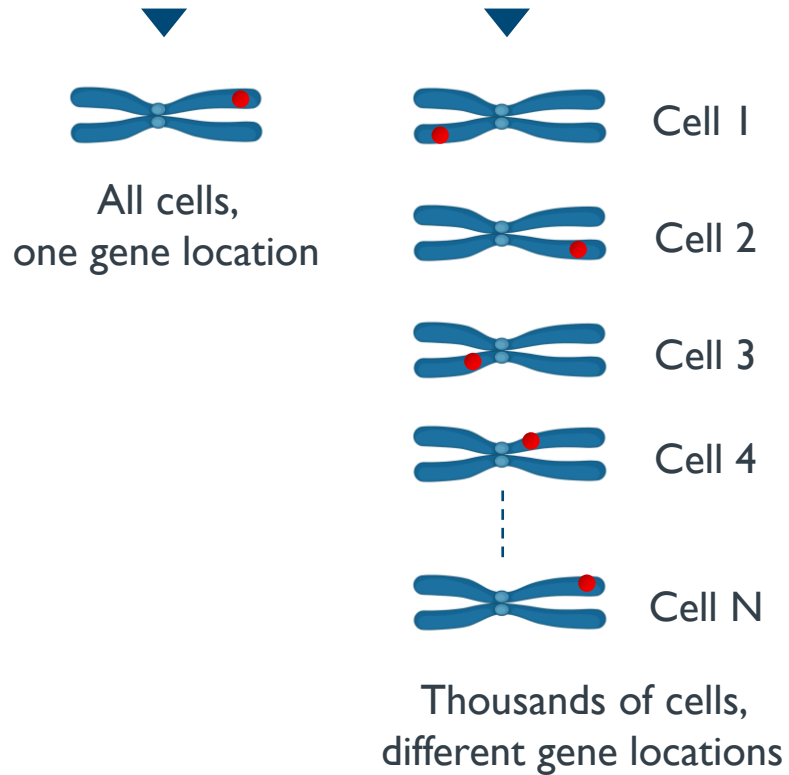
### BxbI Integration Mechanism



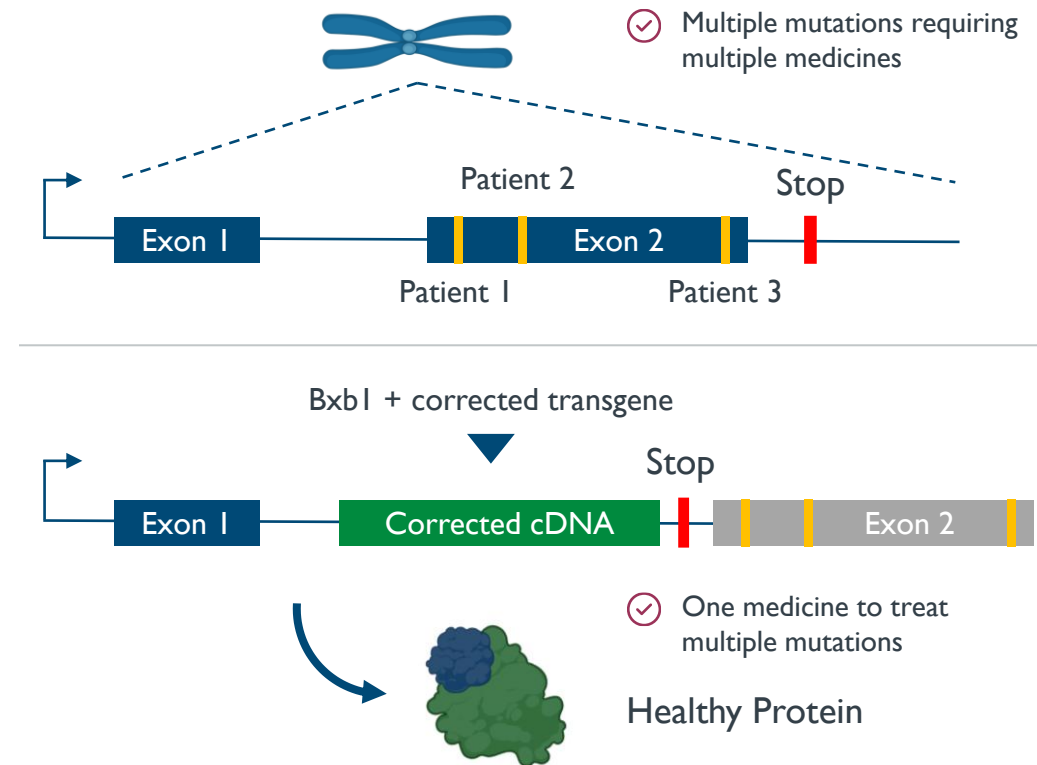
Adapted from Gupta et al., NAR (2017)  
doi: 10.1093/nar/gkx474

# Targeted integration improves existing therapies, and enables new therapies

## Targeted vs. Random Integration



## One medicine vs. multiple variants for each mutation



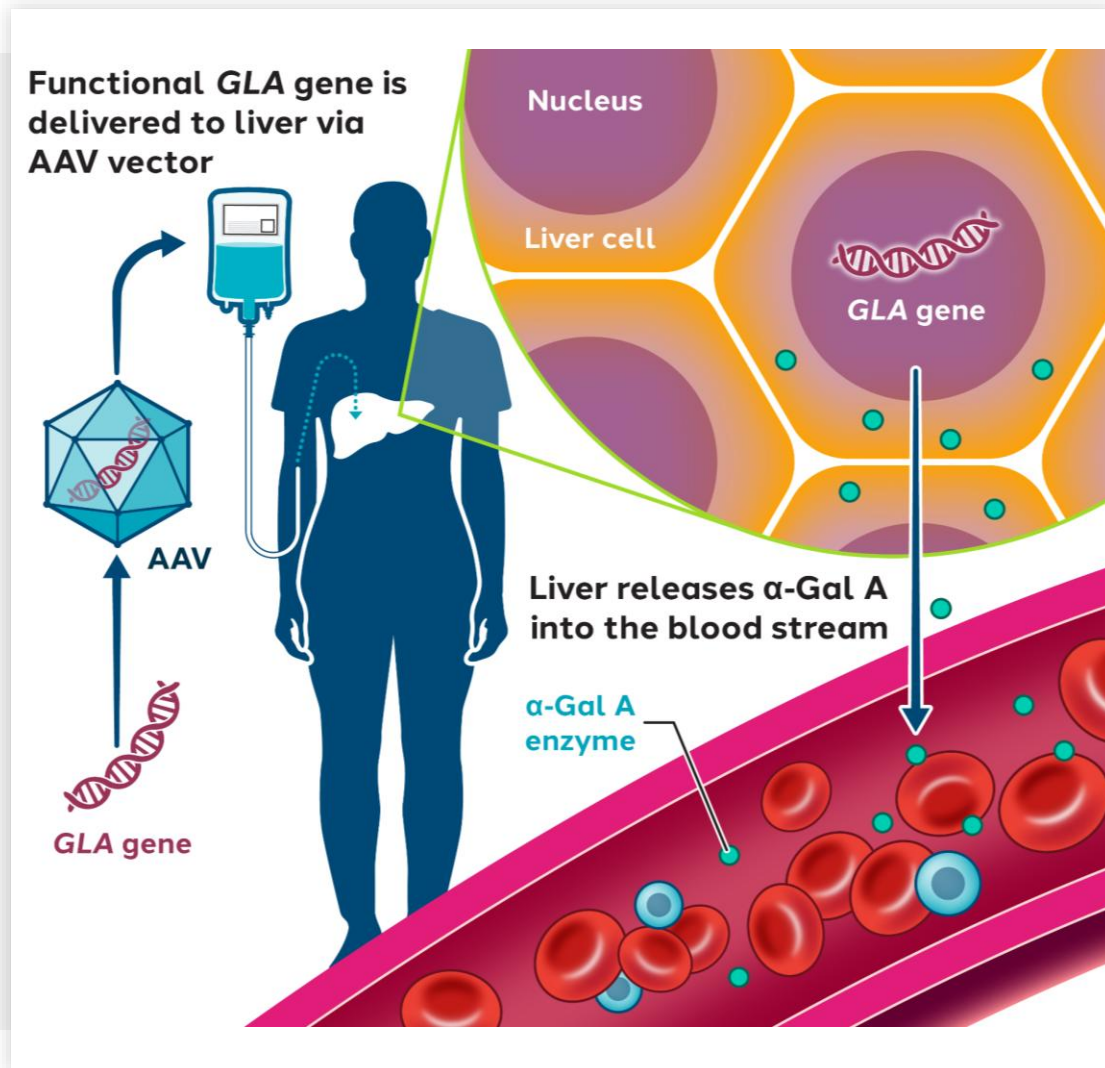
Images by Biorender

# Optimizing Value of Clinical Programs



# Fabry Disease: Isargagene civaparvovec (ST-920)

*Abbreviated clinical pathway supports efforts to secure a commercialization partner*



- **Largest known gene therapy program in Fabry disease**
  - All 32 patients in the Phase I/2 STAAR study have now rolled into the long-term follow-up study
- **Positive topline readout achieved**
  - In June 2025, announced positive topline readout from registrational STAAR study.
  - Positive mean annualized eGFR slope observed at 52-weeks across all dosed patients.
  - ST-920 demonstrated a favorable safety and tolerability profile.
  - Sangamo plans to present additional clinical data at the ICIEM 2025, September 2-6, 2025 in Kyoto, Japan.
- **FDA alignment on Accelerated Approval pathway**
  - FDA confirmed that eGFR slope data at one year across all Phase I/2 patients can serve as primary basis for accelerated approval
  - Potential BLA submission expected as early as 1Q 2026
- **Discussions with EMA on regulatory pathway ongoing**
- **Has EMA PRIME eligibility and UK MHRA ILAP status**



# Fabry Disease: isargagene civaparvovec (ST-920)

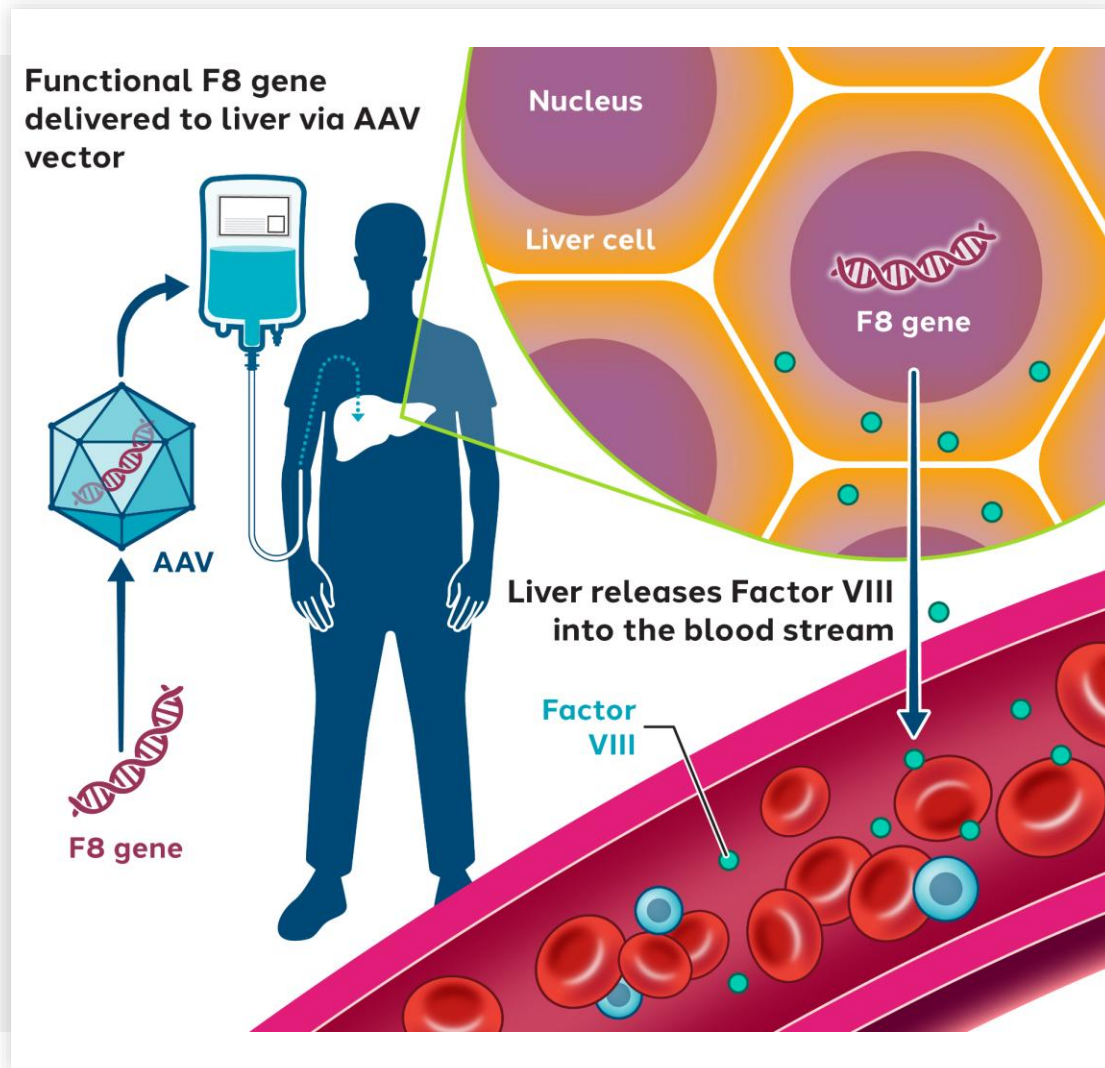
## *Summary of positive topline readout, June 2025*

- Following a single dose of ST-920, a positive mean annualized eGFR slope of 1.965 mL/min/1.73m<sup>2</sup>/year (95% confidence interval (CI): -0.153, 4.083) at 52-weeks was observed across all 32 dosed patients in the study, which the FDA has agreed will serve as an intermediate clinical endpoint under the Accelerated Approval pathway.
- Furthermore, a mean annualized eGFR slope of 1.747 mL/min/1.73m<sup>2</sup>/year (95% CI: -0.106, 3.601) was observed for the 19 patients who have achieved 104-weeks of follow-up.
- Key secondary endpoints in the study were also positive. Elevated expression of alpha-galactosidase A (α-Gal A) activity was maintained for up to 4.5 years for the longest treated patient. Plasma lyso-Gb3 levels remained generally stable following Enzyme Replacement Therapy (ERT) withdrawal and a stabilization in cardiac endpoints was also observed.
- Patients demonstrated a range of other clinical benefits, including improvements in disease severity reported in the Fabry Outcome Survey adaptation of the Mainz Severity Score Index (FOS-MSSI) age-adjusted score and statistically and clinically significant improvements in the short form-36 (SF-36) quality of life scores at week 52 compared to baseline, including:
  - Role-physical +14.8 (95% CI: 7.3, 22.4, p=0.0003), vitality +9.6 (95% CI: 3.9, 15.2, p=0.0017), bodily pain +9.0 (95% CI: 2.3, 15.7, p=0.0104), social functioning +7.8 (95% CI: 2.0, 13.6, p=0.0100), general health +7.4 (95% CI: 2.0, 12.8, p=0.0091), and physical component scores +4.2 (95% CI: 1.8, 6.6, p=0.0014).
- Statistically significant improvements in the gastrointestinal symptoms rating scale (GSRS) compared to baseline were also observed.
- Furthermore, following a single administration of isargagene civaparvovec, additional clinical benefits were observed in some patients, such as the reduction or elimination in pain medication usage and the resumption of sweating, that has enabled these patients to perform physical tasks and exercise.
- Isargagene civaparvovec demonstrated a favorable safety and tolerability profile in the study, without the requirement for preconditioning. The majority of adverse events were grade 1-2 in nature.
- We believe these data support the potential for isargagene civaparvovec as a one-time, durable treatment for Fabry disease that can improve patient outcomes and will form the basis for a planned BLA submission under the Accelerated Approval pathway as early as the first quarter of 2026.



# Hemophilia A: Giroctocogene fitelparvovec

*Compelling readout for Phase 3 AFFINE trial*



- > Pfizer reported positive topline results from the Phase 3 AFFINE trial in July 2024, which met primary and key secondary endpoints
- > Phase 3 data presented at ASH Annual Meeting and Exposition in December 2024 via platform and poster presentations
- > Pfizer and Sangamo have substantially completed the transition of our collaboration, which terminated on April 21, 2025
- > We continue to seek a potential collaboration partner to commercialize the Hemophilia A program

# Sangamo is a differentiated genomic medicine company focused on treating debilitating neurological diseases



**Potent zinc finger epigenetic regulation technology**, with neurology programs advancing towards the clinic



**Industry-leading AAV capsid discovery platform** has demonstrated non-invasive intrathecal and intravenous delivery to the brain



Powerful research platform **continually innovates in new modes of genome modulation** to support value creation opportunities for both wholly owned programs and potential partners



Strong roster of current partners and a **clear regulatory pathway to Accelerated Approval** agreed with **U.S. FDA in Fabry disease**, with partner negotiations ongoing

**SHARP STRATEGIC FOCUS IN NEUROLOGY**

**OPTIMIZING ASSET VALUE**