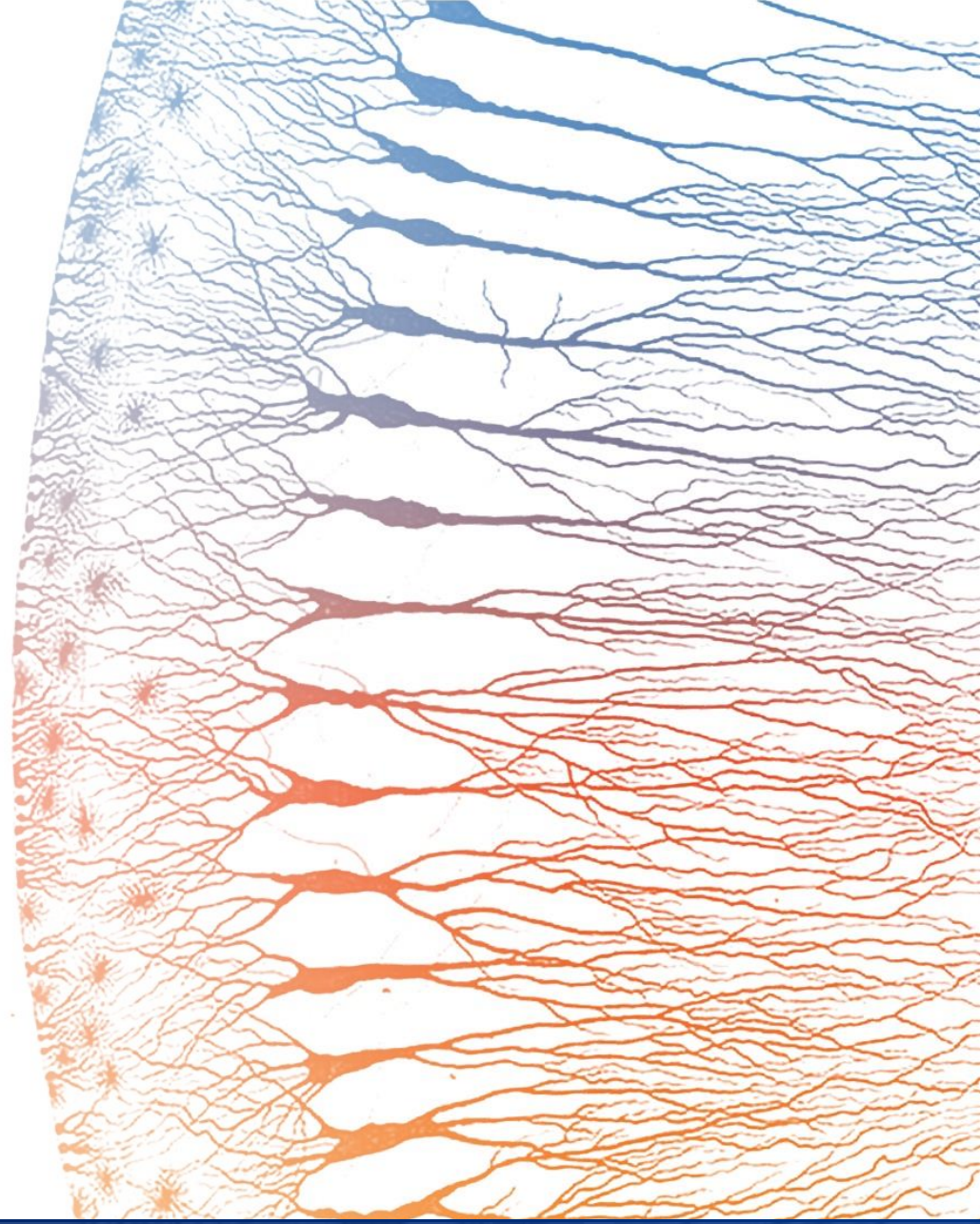
voyager therapeutics

Defining Neurogenetic Medicines

Wells Fargo 2024 Healthcare Conference

Sept. 5, 2024



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This presentation contains forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995 and other federal securities laws. The use of words such as “could,” “expect,” “anticipate,” “potential,” or “continue,” and other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about expectations for Voyager’s achievement of preclinical and clinical development milestones for its potential development candidates such as IND filings, the initiation of clinical trials, and generation of clinical data and proof-of-concept; Voyager’s ability to expand from gene therapy and antibodies into other modalities of neurogenetic medicine; Voyager’s ability to leverage receptors to its TRACER-derived capsid families for the delivery of non-viral neurogenetic medicines to the CNS; the ability of Voyager’s tau silencing gene therapy program to provide a single dose treatment for Alzheimer’s disease; Voyager’s ability to generate near term and long term funding through reimbursement, upfront, milestone and royalty based fees (as applicable) under its existing licensing and collaboration agreements; Voyager’s ability to maintain and advance product development programs under its current partnerships and collaborations; the potential for third-party clinical data to inform Voyager’s clinical development plans; Voyager’s cash runway; and the sufficiency of Voyager’s cash resources. These forward-looking statements are only predictions, and Voyager may not actually achieve the plans, intentions, or expectations disclosed in the forward-looking statements. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that Voyager expected. Such risks and uncertainties include, among others, the expectations and decisions of regulatory authorities; the timing, initiation, conduct, and outcome of Voyager’s preclinical studies and clinical trials; the availability of data from clinical trials; the availability or commercial potential of product candidates under collaborations; the willingness and ability of Voyager's collaboration partners to meet obligations under collaboration agreements with Voyager; the continued development of Voyager’s technology platforms, including Voyager’s TRACER capsid discovery platform and its antibody screening technology; Voyager’s scientific approach and program development progress, and the restricted supply of critical research components; the development by third parties of capsid identification platforms that may be competitive to Voyager’s TRACER capsid discovery platform;; Voyager’s ability to create and protect intellectual property rights associated with the TRACER capsid discovery platform, the capsids identified by the platform, and development candidates for Voyager’s pipeline programs; the possibility and the timing of Voyager’s receipt of program reimbursement, development or commercialization milestones, option exercise, and other payments under Voyager’s existing licensing or collaboration agreements; the ability of Voyager to negotiate and complete other licensing or collaboration agreements on terms acceptable to Voyager and third parties; the success of programs controlled by third party collaboration parties in which Voyager retains a financial interest, and the success of Voyager’s product candidates; the ability to attract and retain talented contractors and employees, including key scientists and business leaders; and the sufficiency of cash resources. These statements are also subject to a number of material risks and uncertainties that are described in Voyager’s most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission, as updated by its subsequent filings with the Securities and Exchange Commission. Any forward-looking statement speaks only as of the date on which this presentation was presented. Voyager undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law.

Voyager: Leveraging Genetics to Treat Neurological Diseases

NASDAQ: VYGR Investment Highlights

PIPELINE

Pipeline of wholly-owned and partnered neurogenetic medicines; VY7523 anti-tau antibody in Phase 1a clinical trial; three gene therapies with IND filings expected in 2025[1]; potential for **clinical data** in 2025/2026.

PLATFORM

Leading platform for CNS gene therapy delivery; cross-species preclinical data show widespread payload expression across CNS following IV delivery; enabling multiple development candidates in CNS gene therapy programs[1].

PARTNERSHIPS

Blue-chip partnerships support strong cash position: **runway into 2027**[2], not including $8.2B in potential longer-term milestone payments.

POTENTIAL

Potential to expand into additional **neurogenetic medicine** modalities. Evaluating potential for identified receptor to enable non-viral delivery of payloads across BBB.

[1] Two of these IND filings/programs are pursuant to Neurocrine-partnered programs. [2] Based on our current operating plans, cash and cash equivalents and marketable securities as of June 30, 2024, along with amounts expected to be received as reimbursement for development costs under the Neurocrine and Novartis collaborations and interest income.

CNS Pipeline Focuses on Validated Targets with High Potential Value

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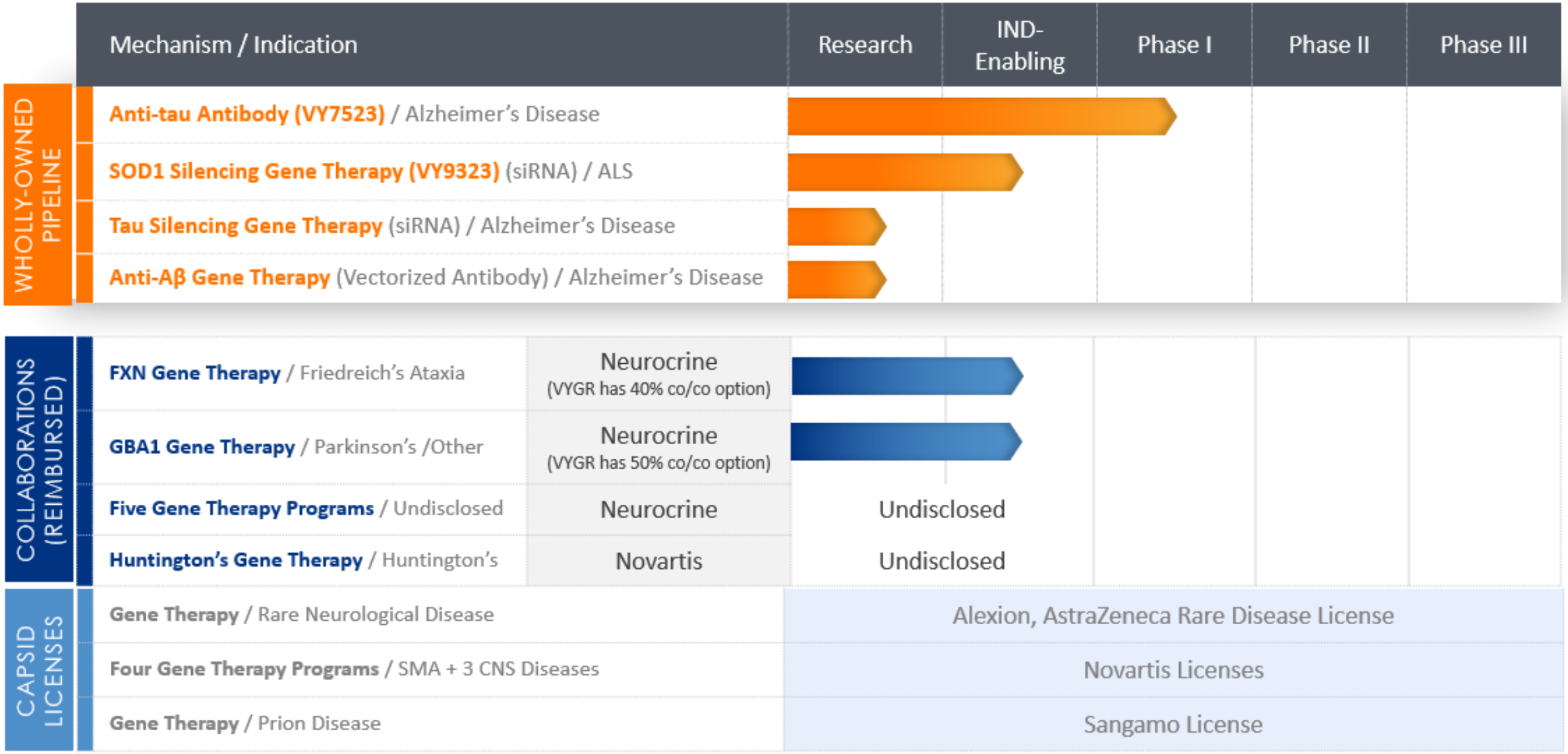


Two Approaches to Targeting Tau for Alzheimer's Disease

~7M Alzheimer's disease patients in the U.S.[1]

- Tau pathology closely correlates with disease progression and cognitive decline[1]
- Tau PET tracers enable imaging of tau pathology and use as clinical trial biomarkers
- Third-party clinical data showed reducing tau led to reduced tau pathology (per tau PET imaging) and produced favorable trends in cognition[2]

VY7523 ANTI-TAU ANTIBODY (formerly VY-TAU01):

- **Modality:** monoclonal antibody, IV-delivered.
- **Approach:** inhibit cell-to-cell spread of pathological tau.
- **Differentiation:** targets C-terminal domain of pathological tau. Multiple failed approaches had targeted N-terminal.
- **Data:** inhibited spread of human pathological tau by >70% in mouse seeding model (AAIC 2022).

STATUS: Single ascending dose trial ongoing

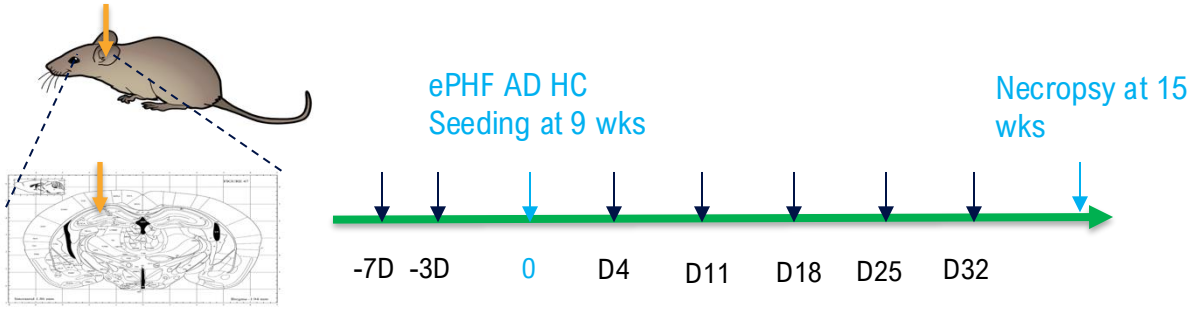
TAU SILENCING GENE THERAPY

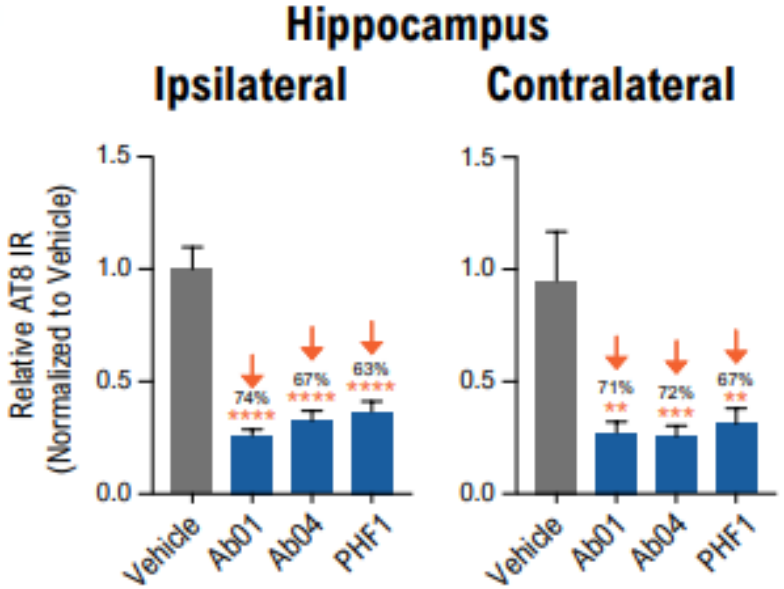
- **Modality:** gene therapy, IV-delivered single dose.
- **Approach:** inhibit expression level of tau mRNA and protein.
- **Differentiation:** gene therapy approach could offer potential for single dose treatment.
- **Data:** single IV administration robustly reduced tau mRNA and protein in brain of mice expressing human tau (ASGCT 2024).

STATUS: IND filing anticipated in 2026

[1] Alzheimer's Facts and Figures Report | Alzheimer's Association
[2] Clinical Trials on Alzheimer's Disease (CTAD) 2023. Exploratory clinical outcomes from BIIB080 (MAPT ASO) phase 1b multiple ascending dose and long-term extension study in mild Alzheimer's disease. N. Ziogas, et al.

Why we chose to move forward with VY7523, our anti-tau antibody currently in a Phase 1 SAD trial



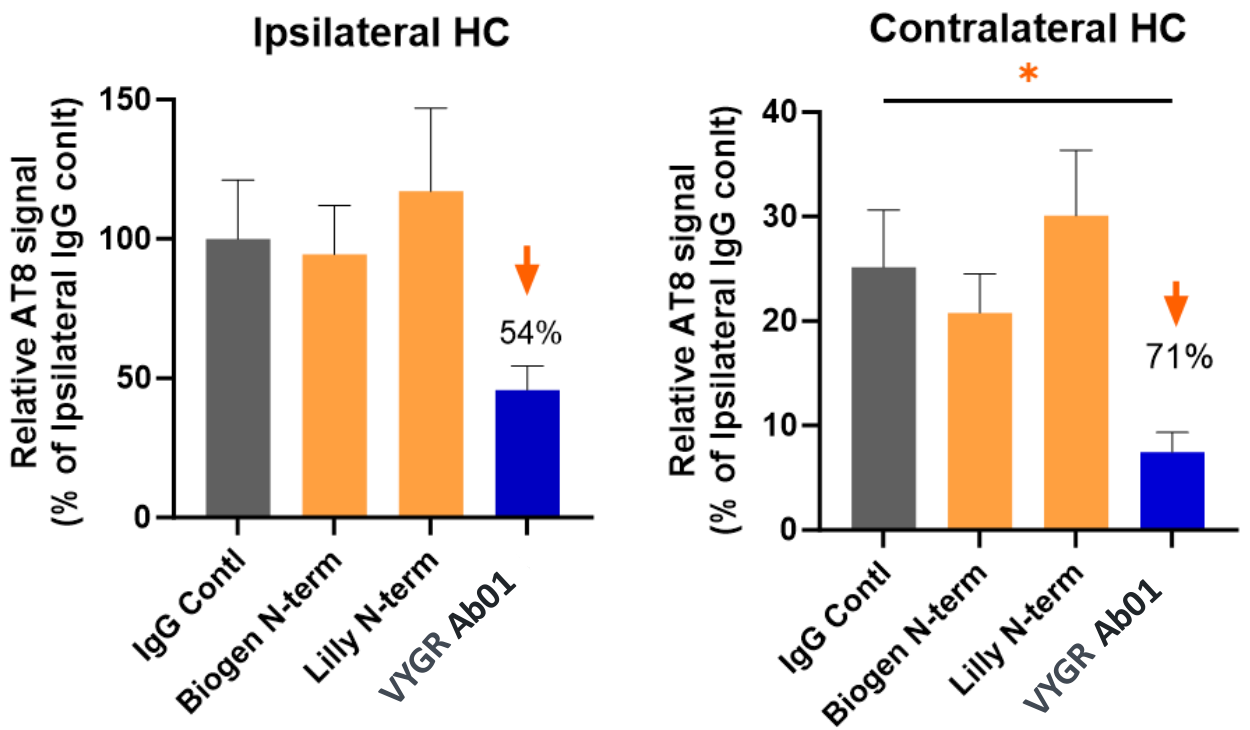


Ab01 = murine surrogate of VY7523

Vehicle = negative control. PHF1 = positive control. Ab01 and Ab04 = Voyager murine antibodies; **Ab01 is murine surrogate of VY7523**. *, **, *** and **** indicate $p < 0.05$, 0.005, 0.0005 and 0.0001, respectively, compared to the vehicle control group. Ab01 data presented at AAIC 2022 and ADPD 2023 by Liu, et al. Data supporting points #2 and #3 above from data on file at Voyager.

Negative Predictive Value: Head-to-Head Study Comparing VY7523 to N-Terminal Targeted Antibodies (Murine Forms)

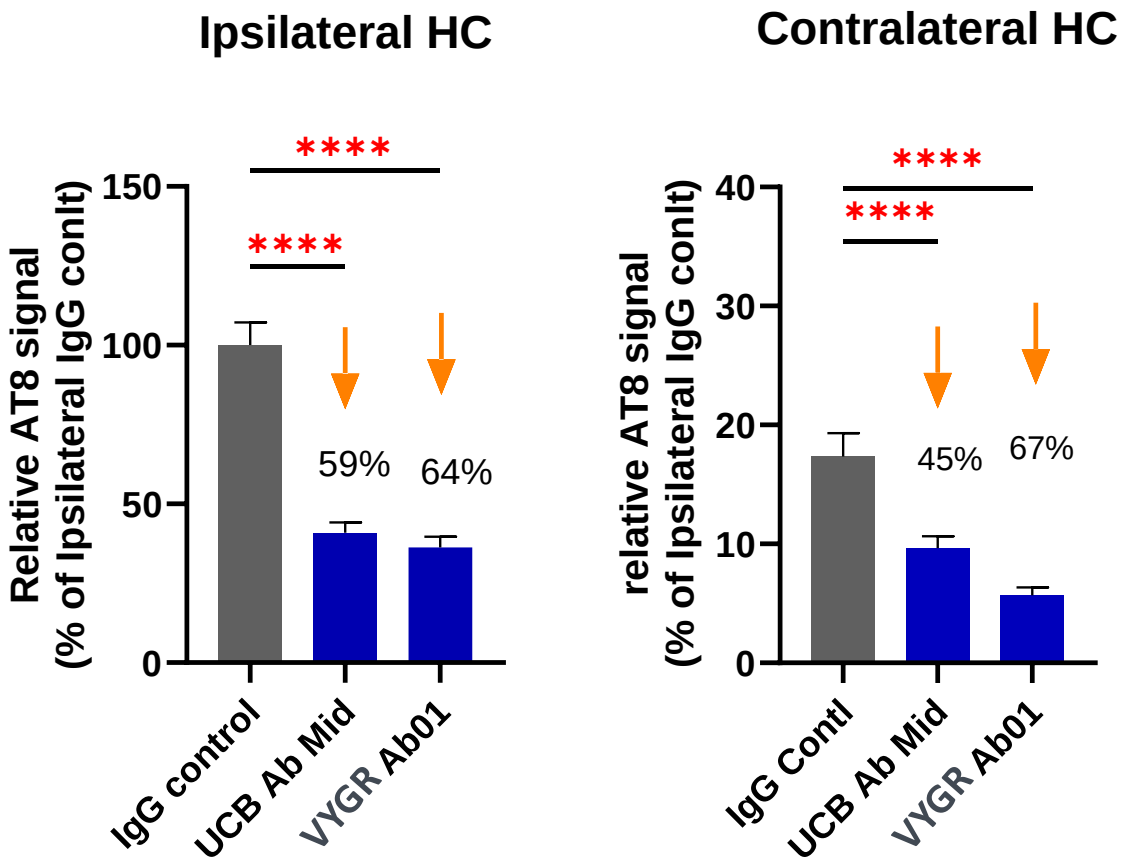
Antibody	Terminal	Outcome in Clinic	Outcome in Model
Ab01: murine Ab of VY7523 (Voyager)	C	SAD ongoing	Ipsilateral: 54 ± 8.7% Contralateral: 71 ± 1.9%*
Murine Ab of gosuranemab (Biogen)	N	Failed primary endpoint	No significant reduction
Murine Ab of zagotenemab (Lilly)	N	Failed primary endpoint	No significant reduction



Ab01 = Voyager murine antibody form of VY7523. * indicates $p < 0.05$..Head-to-head preclinical study at 40 mg/kg; from data on file at Voyager.

Potential for Positive Predictive Value: Head-to-Head Study Comparing VY7523 to UCB/Roche's Bepranemab (Murine Forms)

Antibody	Terminal	Outcome in Clinic	Outcome in Model
Ab01: murine Ab of VY7523 (Voyager)	C	SAD ongoing	Ipsilateral: 64 ± 3.4%**** Contralateral: 67 ± 0.7 %****
Murine Ab of bepranemab (UCB/Roche)	Mid	Ph 2 data expected Q4 '24	Ipsilateral: 59 ± 3.3%**** Contralateral: 45 ± 1.0 %****



Ab01 = Voyager murine antibody form of VY7523. *, **, *** and **** indicate $p < 0.05$, 0.005, 0.0005 and 0.0001, respectively. .Head-to-head preclinical study at 80 mg/kg; from data on file at Voyager.

VY7523 Anti-Tau Antibody: UCB Data Offers Potential Derisking Event Q4 '24

Summary: 3 key findings on the effects of anti-tau antibodies in the mouse seeding model:

1. Murine surrogate of VY7523 (Ab01) consistently and robustly inhibits spread of human pathological tau in the mouse seeding model

2. N-terminal targeted anti-tau antibodies that failed in the clinic also FAILED in model

3. UCB/Roche mid-domain anti-tau antibody REDUCED SPREAD in model; clinical success could derisk VY7523

VY7523 Phase I Clinical Development Plan

- **First-in-human, dose-escalation trial to assess safety**
- **Single Ascending Dose (SAD) trial underway in healthy volunteers**
  - *Design:* Randomized, placebo-controlled, single dose trial in multiple cohorts with approximately 48 participants
  - *Timing:* top-line safety and pharmacokinetic data expected H1 2025
- **Multiple Ascending Dose (MAD) trial expected to be conducted in patients with early Alzheimer's disease**
  - *Timing:* expected to initiate in 2025; potential to generate initial tau PET imaging data to determine if treatment can slow the spread of pathological tau in H2 2026

Key Milestones:

✓ **Q2 2023:** Received pre-IND feedback from the FDA

✓ **Q1 2024:** Completed GLP toxicology studies

✓ **H1 2024:** Filed IND with FDA

✓ **2024:** Initiated Phase 1a single ascending dose (SAD) trial in healthy volunteers

Q4 2024: Phase 2 data expected on bepranemab (mid-domain anti-tau antibody from UCB/Roche); potential read-through to VY7523

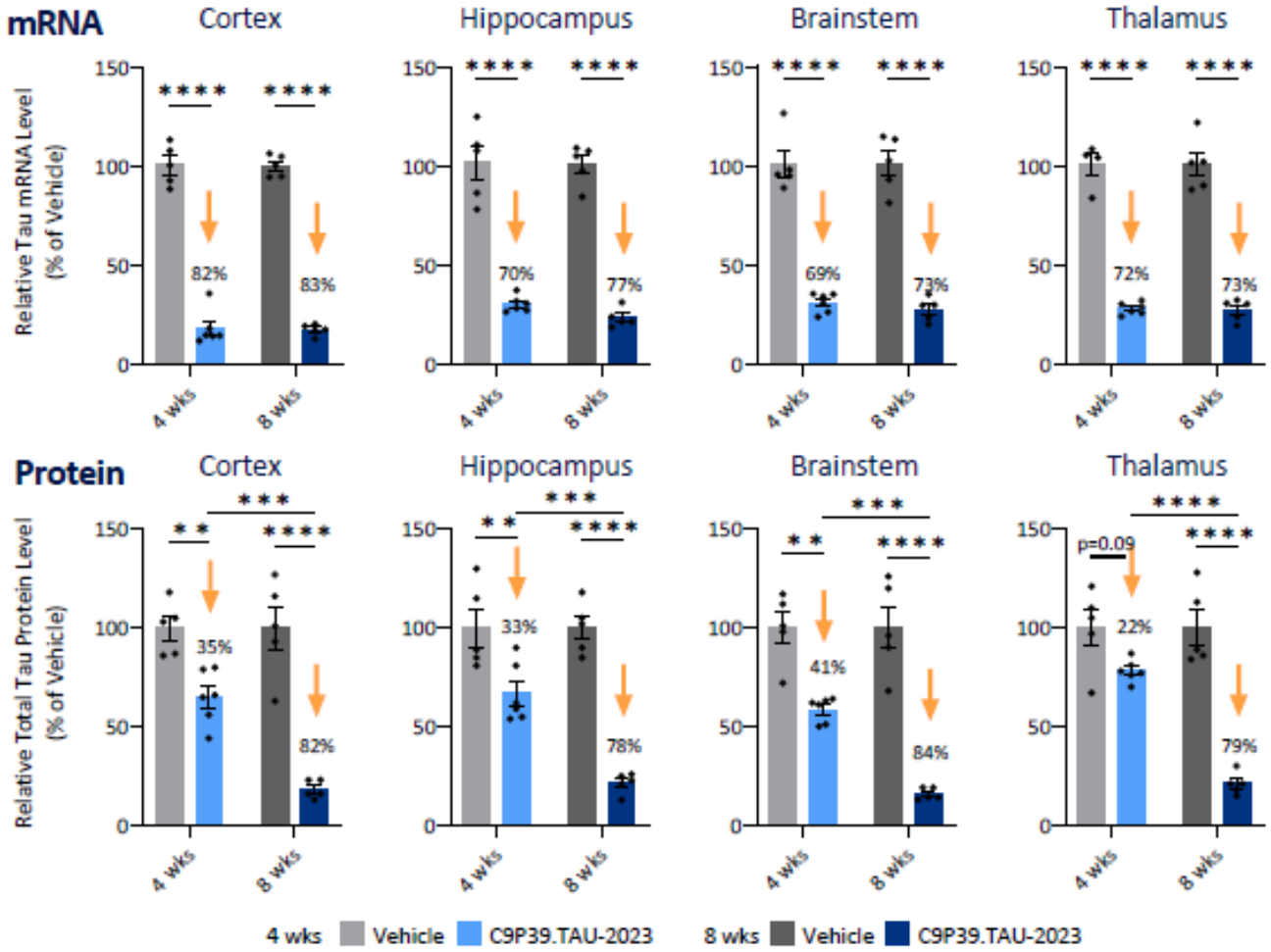
H1 2025: Topline safety/PK data expected from SAD trial

2025: Initiate Phase 1b multiple ascending dose study in early AD patients

H2 2026: Initial clinical data expected (Tau PET imaging)

Intravenous Administration of Tau Silencing Gene Therapy Robustly Reduced Tau mRNA and Protein in Brain of Mice Expressing Human Tau

Tau Silencing Gene Therapy offers knock-down approach and potential for single dose treatment



Robust reductions in human Tau mRNA and protein across multiple brain regions of hTau mice following a single intravenous administration; presented at ASGCT 2024

Anticipate IND filing in 2026

Vectorized primary artificial microRNA targeting human tau mRNA delivered by BBB-penetrant capsid administered by intravenous injection to hTau transgenic mice at 12-13 weeks of age; tissue harvested for analysis 4 weeks following administration; mRNA measured by RT-qRCR; protein measured in soluble fraction of brain regions by AlphaLISA. Asterisks correspond to statistical significance, with * indicating $p<0.05$ and **** indicating $p<0.0001$

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Thank You

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