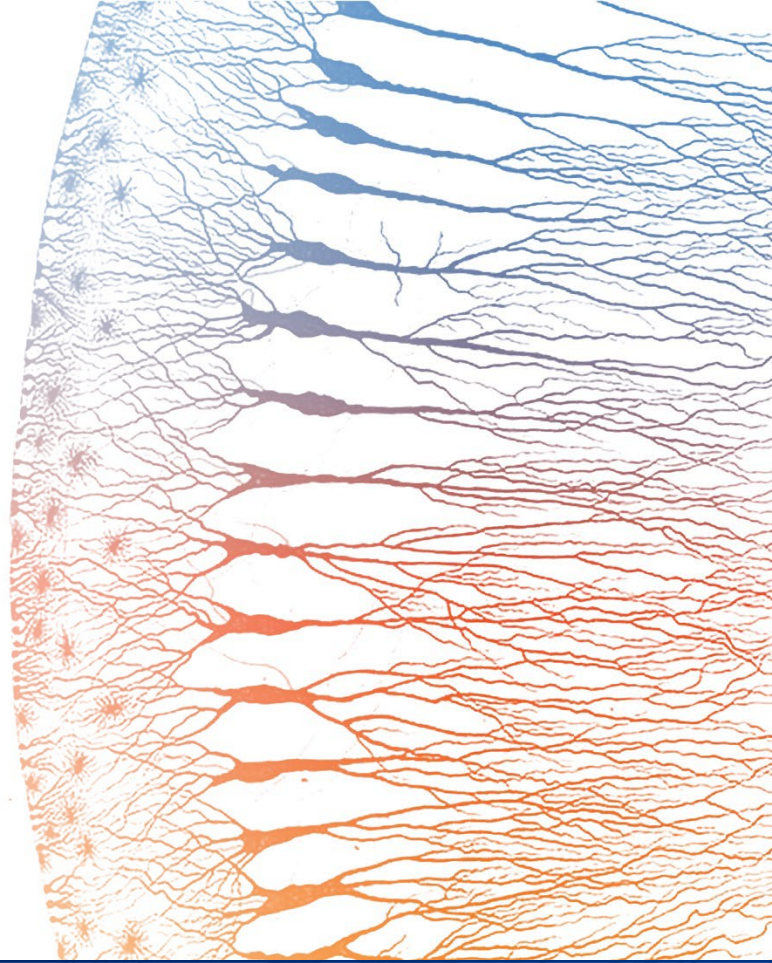
voyager therapeutics

Leveraging Genetics to Treat Neurological Diseases

Citi 2025 Biopharma Back to School Conference
September 2, 2025



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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 “anticipate,” “expect,” “believe,” “plan,” “estimate,” “may,” or “potential,” 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 the identification of lead development candidates, IND and CTA filings, the initiation of clinical trials, and the generation of clinical data and proof-of-concept; the potential for third-party clinical data to inform Voyager’s product development programs; Voyager’s ability to expand from gene therapy and antibodies into other modalities of neurogenetic medicine; 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, and to obtain data regarding the performance of its TRACER-derived capsid families licensed to its collaborators and partners under such agreements; Voyager’s ability to maintain and advance product development programs under its current partnerships and collaborations, including the anticipated timing of regulatory submissions by collaborators; 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 based on estimates and assumptions by Voyager’s management that, although Voyager believes such forward-looking statements to be reasonable, are inherently uncertain and 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 outcomes of Voyager’s preclinical studies and clinical trials; the availability of data from internal or third-party clinical trials; the success of Voyager’s product candidates; 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 non-viral discovery platform; Voyager’s scientific approach and program development progress, and the restricted supply and increased costs of critical research components; the development by third parties of capsid identification platforms and capsids 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 and non-viral platforms, the capsids and ligands identified by the platforms, 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 licensing or collaboration agreements with other parties on terms acceptable to Voyager and the third parties; the success of programs controlled by third-party collaborators in which Voyager retains a financial interest; the ability to attract and retain talented directors, employees, and contractors; and the sufficiency of Voyager’s 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 (NASDAQ: VYGR) Investment Rationale

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Cash runway into 2028, not including $7.4B in potential milestone payments from existing partnerships[1]

NEURO PIPELINE	Expect 4 programs in clinic in 2026; VY7523 data in AD patients expected H2 2026	4 wholly-owned Alzheimer's programs covering amyloid, tau, APOE
STRATEGY TO MITIGATE NEURO RISK	Focus on validated targets, biomarker-based path to POB/POC, transformative effects for high unmet needs	I.V. AAV and shuttles designed to optimize delivery of therapeutics to the CNS
TOP PEOPLE + PARTNERS	Validation and non-dilutive funding ($500M+) from partners including Novartis, Neurocrine, Alexion	Neuro team with track record of successful CNS drugs

[1] Based on our current operating plans, cash and cash equivalents and marketable securities as of June 30, 2025, along with amounts expected to be received as reimbursement for development costs under the Neurocrine and Novartis collaborations and interest income.

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Building on First-Generation Transferrin Receptor (TfR) Shuttles

1st-Generation TfR Shuttles Show Transformative Benefit for CNS Biotherapeutics…

Un-Shuttled (gantenerumab)		**Shuttled** (trontinemab)	
~28% of patients => amyloid PET negative[1]	**24.9%** of treated patients with ARIA-E	**91%** of patients => amyloid PET negative[2]	**<5%** of all participants with ARIA-E

…Yet there is room for improvement and expansion

Each BBB transporter target offers unique properties:

- **Pharmacokinetics of delivery**
  (e.g. TfR provides rapid uptake with fast clearance)
- **Biodistribution throughout the body**
  (e.g. TfR has high expression peripherally and within the CNS)
- **Safety considerations – endogenous transporter function**
  (e.g. TfR is a critical regulator of iron homeostasis)

Utilizing multiple unique BBB transporters enables fit-for-purpose delivery of diverse therapeutic modalities

1. Bateman, et al. N Engl J Med 2023;389:1862-1876. 2. Kulic, et al. Latest results from the dose-expansion part (Part 2) of the Brainshuttle™ AD study of trontinemab in people with Alzheimer's disease. AAIC 2025.

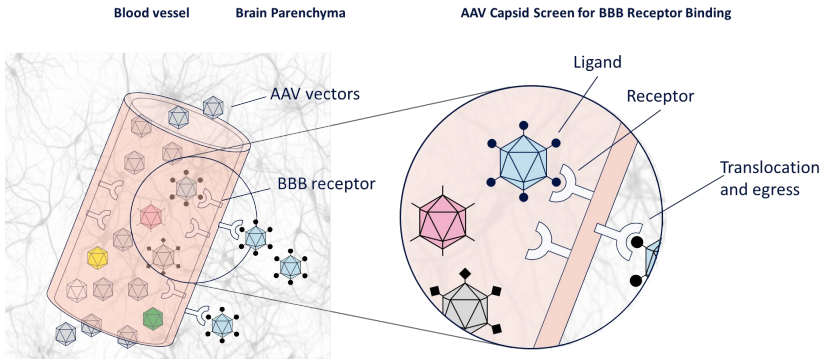
VYGR-NeuroShuttle: Next-Gen Approach to Neurotherapeutics

voyager NeuroShuttle™

Voyager NeuroShuttle™ (VYGR-NeuroShuttle) is a non-viral delivery platform leveraging novel receptor-binding molecules to transport multiple modalities of neurotherapeutics across the blood-brain barrier (BBB).

TRACER™ AAV capsid discovery platform → Capsid family crosses BBB → Receptor ID: **ALPL** → ALPL ligands identified

TRACER engine for receptor discovery



Receptor Y, Receptor 7, etc.

ALPL-VYGR-NeuroShuttle

Potential to deliver a diversity of therapeutic modalities:

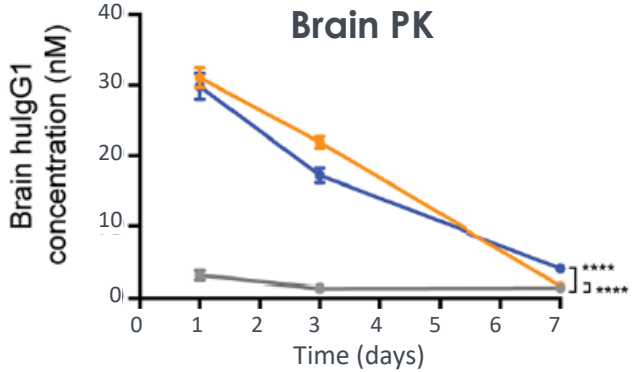
- Antibodies
- Enzymes
- Genome editors
- ASOs
- siRNAs
- Peptides

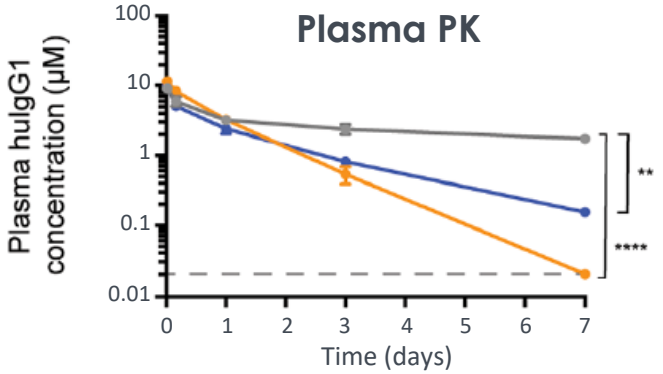
1st-Gen TfR Shuttles Show Rapid Brain Uptake, Short Half-Life

TfR Shuttle[1]

50 mg/kg IV, hTfR KI mice

- Anti-BACE1
- ATV35.21:BACE1
- ATV35:BACE1

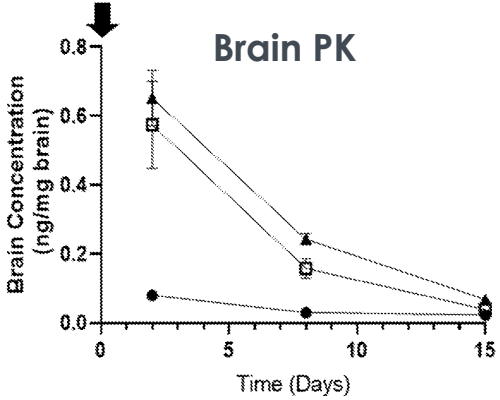


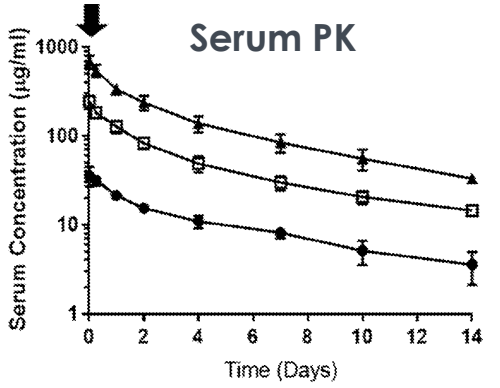


TfR Shuttle[2]

30, 10 or 2 mg/kg IV, NHP

- 2 mg/kg
- 10 mg/kg
- 30 mg/kg





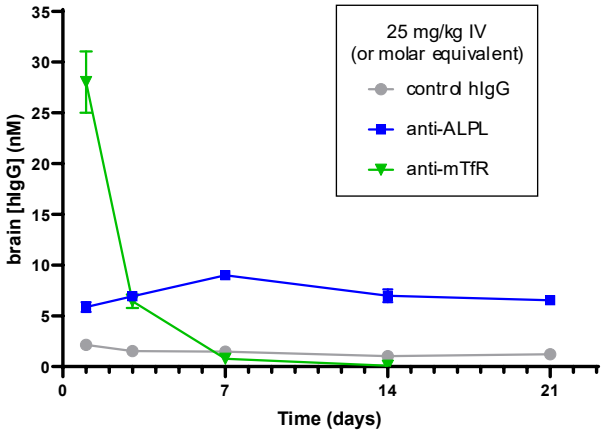
1. Kariolis et al STM 2020. [Denali] 2. US20230174646A1 [Aliada]

ALPL-VYGR-NeuroShuttle Demonstrates Sustained Brain Exposures

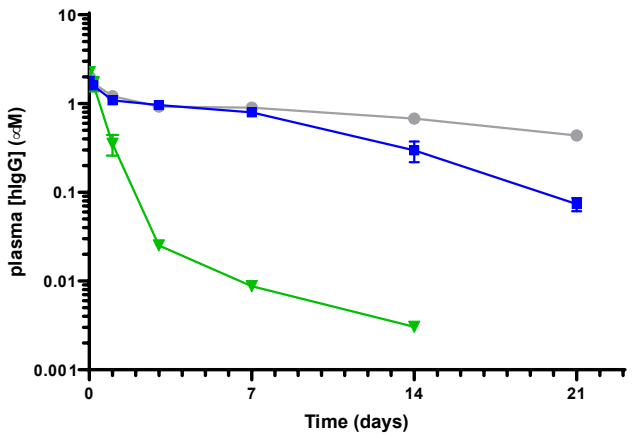
Proof of concept murine data[1] show sustained CNS exposure for ALPL versus TfR shuttles

- **Increased antibody concentration in brain; modest impact on peripheral clearance**
- **Brain uptake sustained for >3 weeks post-dose (vs <1 week for TfR shuttles)**

Brain PK



Plasma PK



1. Voyager data on file.

On-Target Risk of Anemia When Targeting TfR

TfR engagement is known to impact circulating reticulocytes, causing a risk of anemia.

Administration of trontinemab induced transient and mostly mild anemia in 10-20% of trial participants.[1]

	PART 1 +2 (Combined) (n=114)	
Total number of participants with at least one AE (%)	**Cohort 3** 1.8 mg/kg or Pbo (n=76)	**Cohort 4** 3.6 mg/kg or Pbo (n=38)
Infusion related reaction (IRR)	**38 (50.0%)**	**20 (52.6%)**
Anemia	**15 (19.7%)**	**4 (10.5%)**

1. Klein et. al., Trontinemab ADPD 2025 as presented at Roche Virtual IR Event, April 2025.

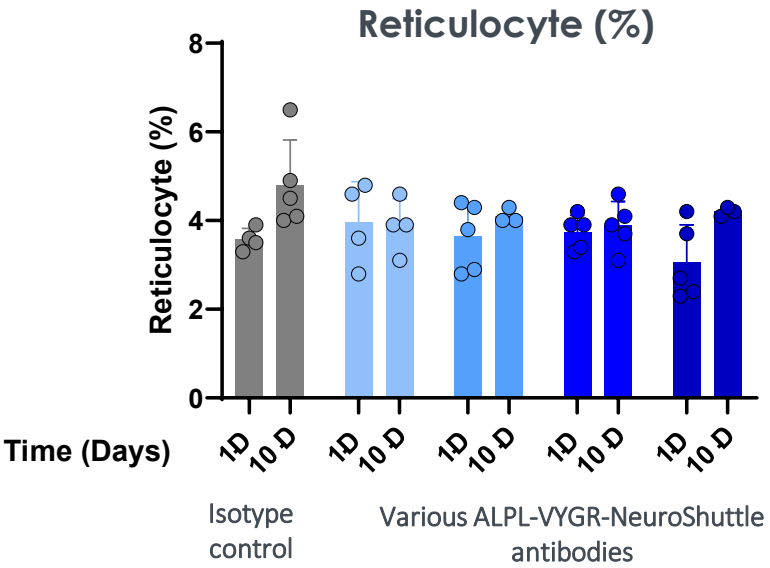
Potential for ALPL-VYGR-NeuroShuttle Differentiation on Safety

Proof of concept murine data show negligible anemia risk for ALPL

ALPL-VYGR-NeuroShuttle technology does not impact reticulocytes in mice; potential reduced anemia risk[1]

ALPL plays a key role in skeletal and dental mineralization, liver function, and neurotransmitter synthesis.[2]

- Decreased levels of ALPL (~30% residual activity) can result in bone hypomineralization or cardiovascular complications.[3]
- Genetic data indicate partial loss of function is tolerable.[3]
- Preclinical studies ongoing to identify potential safety profile of ALPL-VYGR-NeuroShuttle.



1. Voyager data on file. 2. Goettsch et al. Cardiovascular Research. 2022. 118:84-96. 3. Farman MR, et. al., The ALPL gene variant project: results of the first 100 reclassified variants. JBMR Plus. 2025 Mar 17;9(6):ziaf044. doi: 10.1093/jbmrpl/ziaf044. PMID: 40386289; PMCID: PMC12083982.

Market + Acquirers Appreciate Shuttle Opportunity and Value

Multiple potential opportunities for Voyager's NeuroShuttle platform to create value:

- Increase efficacy by increasing on-target delivery
- Improve safety by reducing peripheral exposure
- Lower COGS by reducing dose needed
- Expand opportunity for shuttles:
  ALPL first of multiple receptors identified

Select M&A / Licensing Deals in the Shuttling Technology Space

Partner	Target	Value ($mm)	# of Asset(s)	Indication	Phase
GSK	ablbio	$2,720	Platform	Neurodegenerative Disease	Preclinical
abbvie	ALIADA	$1,400	1 + Platform	Alzheimer's Disease	Phase I
Bristol Myers Squibb	BIOARCTIC	$1,350	2	Alzheimer's Disease	Preclinical
sanofi	ablbio	$1,060	1	Parkinson's Disease	Preclinical
NOVARTIS	BIOARCTIC	$800	1	Neurodegenerative Disease	Preclinical

Multiple $1bn+ M&A or licensing deals in recent years by large pharma to gain access to shuttle technology programs

M&A Deal with All Upfront

voyager NeuroShuttle™

VYGR-NeuroShuttle is a priority for Voyager.

Platform optimization and program development across therapeutic modalities ongoing, in rodents and non-human primates.

CNS Pipeline Focuses on Validated Targets with High Potential Value

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