
ALLYX
THERAPEUTICS
Protecting Synapses to Treat Neurodegenerative Diseases
Yale Innovation Summit | 2021

Allyx Therapeutics Founding Team

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TAVANTA ACHILLION

ALZHEIMER'S DISEASE
BY THE NUMBERS

5.8
Million Patients in the US

40%
Patients in MCI Stage of Disease

6th
Leading Cause of Death in US

17
Million Patients in US by 2050

Currently No Disease Modifying Therapies Available

Tenets of Allyx

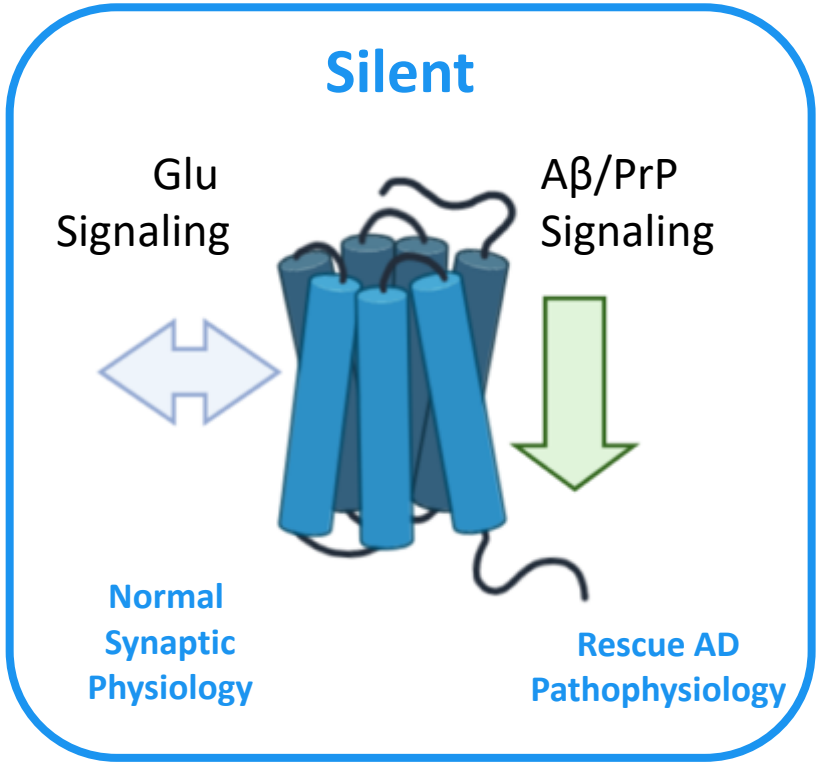
Path to Developing a Disease Modifying AD Therapy

1. Targeting synapse loss is required as it is the underlying driver of disease progression
2. Conduct animal studies in a manner that best models human disease progression and clinical treatment paradigms with replication across multiple models
3. Utilize PET imaging biomarkers as a powerful means to de-risk clinical development and validate mechanism of action
4. Leverage non-dilutive funding available from the NIH at each stage of the development process to maximize investor equity and returns

ALX-001 – mGluR5 Silent Allosteric Modulator (SAM)

Optimized Mechanism of Action and TPP for AD Therapy

mGluR5 is Essential for Cognition
Central Receptor for Pathophysiological Synapse Dysfunction and Loss



- In-licensed portfolio of mGluR5 allosteric modulators from BMS
- Highly potent and selective small molecule. Preferentially delivered to the brain.
- Solid oral formulation and expected QD dosing
- Disease reversal demonstrated in *3* different mouse models of Alzheimer's disease
- Wide therapeutic window validated by primate receptor occupancy study
- **IND activated March 2021 with Phase 1a currently underway at the Yale Alzheimer's Disease Research Center**

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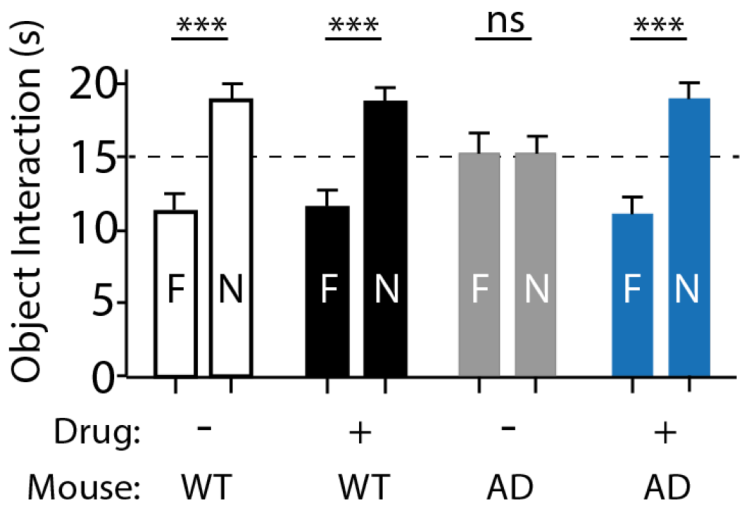
ALX-001 Restores Learning and Memory Deficit in Mouse Model of AD and Reverses Synapse Loss

Model: APP/PS1
Age: 12-month old
Status: Established AD Phenotype
Treatment: 3.75 mg/kg BID
Duration: 1-Month

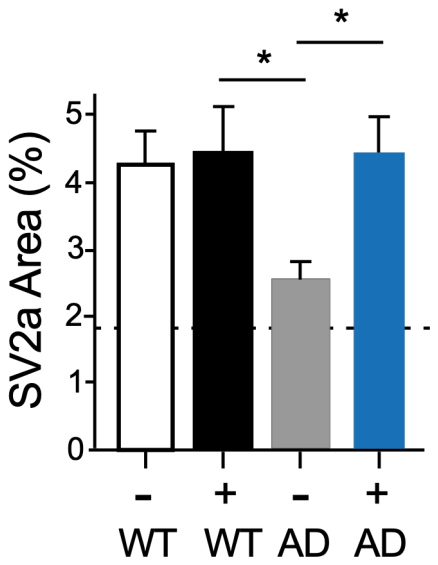
Rescues Memory Deficit

Novel Object Recognition



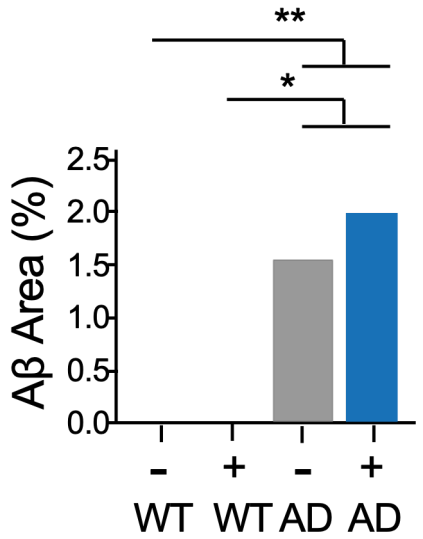
Reverses Synapse Loss

Synapse Quantification



Aβ Plaque Levels Are Unchanged

Plaque Quantification



ALX-001 Reverses Disease In Preclinical Models

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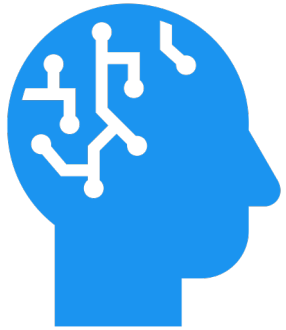
Haas et al, Cell Reports 20:76-88 (2017)

Translatable Imaging Technologies Mitigate Clinical Risk

Non-Clinical	Phase 1a	Phase 1b	Phase 2
	Safety Study in HV	Safety Study in AD Patients	PoC Study in AD Patients
	Ongoing		

mGluR5 PET
Early Clinical Development

Measure ALX-001 target engagement at predicted therapeutic concentrations and relationship with safety



Synapse Targeting PET
Late Clinical Development

Establish proof of concept by tracking synapse preservation with ALX-001 treatment in patients

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- Focus on neuronal synapse protection and rescue
- Distinct mechanism of action from Aβ or Tau lowering technologies
- Genetic link to GWAS AD risk variant
- Expedited and capital efficient plan to Proof of Concept

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