APP–Tau bispecific peptide inhibitor for Alzheimer's Disease

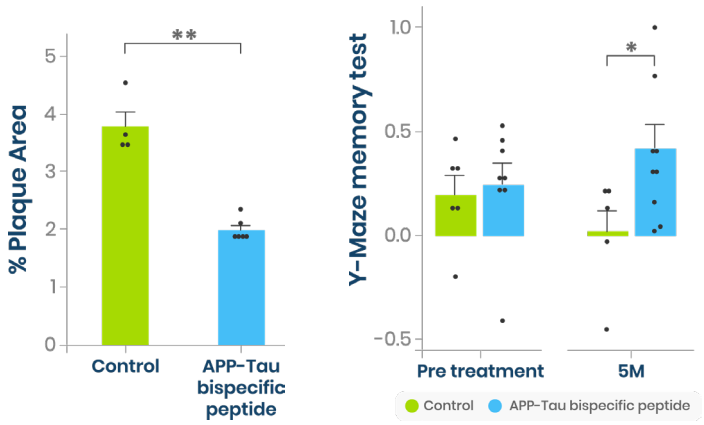
Therapeutics

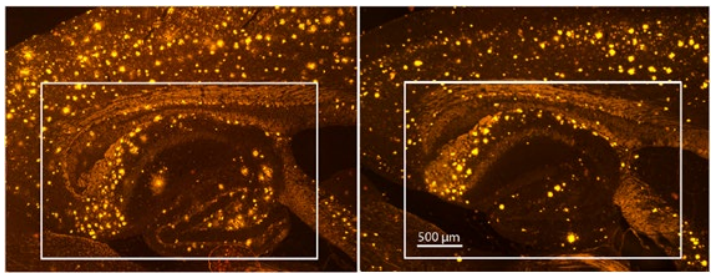
Reference Number: **2057** \ Principal Investigator: **Prof. Ruth Arnon** \ Patent Status: **US20220306710A1**

The interaction between APP and Tau, two central drivers of Alzheimer's pathology, is increasingly recognized as a critical factor in disease progression.

We developed a bispecific peptide therapy that disrupts the APP–Tau interaction, leading to reduced amyloid plaque burden and improved cognitive function in 5xFAD Alzheimer's mice.

APP-Tau bispecific peptide reduced Aβ plaques and improved cognitive function in Alzheimer mice





Control APP-Tau bispecific peptide

APPLICATIONS

- Disease-modifying treatment for Alzheimer's disease
- Preventive therapy for individuals at risk of developing AD
- Potential use in other neurodegenerative diseases involving protein aggregation

DEVELOPMENT STAGE

- Binding inhibition validated *in vitro*
- *In vivo* validation in 5xFAD Alzheimer mice showing reduced hippocampal plaque load and improved cognitive function

DIFFERENTIATION

Restores cognitive function, even after disease onset

Targets APP–Tau interaction, a key driver of Alzheimer's

Potential for non-invasive nasal administration

REFERENCES

- Maron et al., 2023, Int J Mol Sci