Optimization and preclinical development of soluble gamma-secretase modulators for AD

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Contact information of lead PI
Country

USA

Title of project or programme

Optimization and preclinical development of soluble gamma-secretase modulators for AD

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 4,151,767.89

Start date of award

15/05/2016

Total duration of award in years

1

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

Acquired Cognitive Impairment... Aging... Alzheimer's Disease... Alzheimer's Disease including Alzheimer's Disease Related Dementias (AD/ADRD)... Brain Disorders... Dementia... Neurodegenerative... Neurosciences... Translational Research

Research Abstract

? DESCRIPTION (provided by applicant): Alzheimer’s disease (AD) is defined neuropathologically by extracellular plaques composed of ??amyloid (A?42) and intracellular tangles consisting of hyperphosphorylated forms of the microtubule?associated protein tau. A? accumulation and hyperphosphorylation of tau are recognized as key events leading to full blown AD neuropathology. Here we propose to further optimize a unique set of small molecule drugs known as soluble gamma?secretase modulators (SGSMs) to further explore novel AD therapeutics. This proposal will focus on the medicinal chemistry lead optimization and the testing of the efficacy of these drugs aimed at halting A?42?related pathologies in AD transgenic mice. Our overarching hypothesis is SGSM therapy aimed to disrupt production of A?42 will be an efficacious treatment approach for prodromal or early AD as well as sporadic late?onset AD. The goal of this project is to complete all of the necessary IND-enabling studies and to file an IND on a very potent and safe SGSM.

Lay Summary
PUBLIC HEALTH RELEVANCE: Alzheimer’s disease (AD) is defined neuropathologically by extracellular plaques composed of ??amyloid (A?42) and intracellular tangles consisting of hyperphosphorylated forms of the microtubule?associated protein tau. A? accumulation and hyperphosphorylation of tau are recognized as key events leading to full blown AD neuropathology. The ultimate goal of this project is to complete all of the necessary IND?enabling studies and to file an IND on a very potent and safe soluble gamma?secretase modulator (SGSM) for Alzheimer’s disease.

Further information available at:

Types:
Investments > €500k

Member States:
United States of America

Diseases:
Alzheimer's disease & other dementias

Years:
2016

Database Categories:
N/A

Database Tags:
N/A