

Stopping the propagation of Alzheimer and other dementias

<https://neurodegenerationresearch.eu/survey/stopping-the-propagation-of-alzheimer-and-other-dementias/>

Name of Fellow

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Institution

Funder

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Country

Sweden

Title of project/programme

Stopping the propagation of Alzheimer and other dementias

Source of funding information

Total sum awarded (Euro)

€ 590,860

Start date of award

01-01-2014

Total duration of award in years

3.0

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

Alzheimer disease | Beta amyloid | disease progression | assay | high throughput screening | Protein Transport

Research Abstract

The hallmark of Alzheimer's disease is the continuous loss of cognitive functions. The progression is caused by the spread of the disease to more and more brain areas via anatomical connections. Our recent work has shown that the spread of Alzheimer's disease most likely depends on neuron to neuron of beta-amyloid oligomers, causing toxicity in the receiving cells. Now, we want to investigate the cellular mechanisms of transmission, compare it to other transmissible neurodegenerative proteins (alfa-synuclein and tau) and screen for

substances that interact with the spreading. To understand the mechanisms of progression is highly important for both Alzheimer's disease and related dementias. The proposed approach relies on our established and unique model of synaptic transmission between human neuronal like cells, something that has previously been difficult to target. To develop high-throughput screening of this phenomenon is very important to be able to find substances with an effect on transmission of neurodegenerative proteins. The long term goal is to find classes of chemical substances that have effect on the transmission. Through chemical analysis of these substances it will be possible to find both pre- and post-synaptic mechanisms that are involved. This will help us understand the mechanisms of transfer but also to search for potential drugs to stop the progression of Alzheimer's disease. We are currently in a unique position to accomplish this project.

Types:

Fellowships

Member States:

Sweden

Diseases:

Alzheimer's disease & other dementias

Years:

2016

Database Categories:

N/A

Database Tags:

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