

Activators of Nrf2 Translation in Alzheimers Disease

<https://www.neurodegenerationresearch.eu/survey/activators-of-nrf2-translation-in-alzheimers-disease/>

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Country

USA

Title of project or programme

Activators of Nrf2 Translation in Alzheimers Disease

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

143119.2661

Start date of award

01/05/2016

Total duration of award in years

1

Keywords

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

Research Abstract

? DESCRIPTION (provided by applicant): This study is designed to screen potent activators of nuclear factor-erythroid 2 related factor 2 (Nrf2) translation for the treatment or prevention of Alzheimer's disease (AD). Nrf2 regulates the expression of most genes involved with the intrinsic antioxidant response and it has been widely reported with in vivo studies, that activatio

of this transcription factor has the potential to ameliorate the progression of Alzheimer's disease. Most known activators of Nrf2 act indirectly by preventing its cytoplasmic degradation mediated by Kelch like ECH-associated protein 1 (Keap1). We recently found a novel regulatory mechanism of Nrf2 at the level of protein translation, and were able to create a biosensor to detect activators of Nrf2 translation. We propose testing this sensor to detect Nrf2 translational activators in 5040 natural-derived compounds library. After screening a library using this assay, those compounds found to activate Nrf2 translation will be examined in secondary screen for anti-AD activity. Our aim is to identify novel compounds that activate Nrf2 in cells lines involved with AD.

Further information available at:

Types:

Investments < €500k

Member States:

United States of America

Diseases:

N/A

Years:

2016

Database Categories:

N/A

Database Tags:

N/A