Investigating the mechanism of Amyloid-beta GxxxG-motif-targeting agents

https://neurodegenerationresearch.eu/survey/investigating-the-mechanism-of-amyloid-beta-gxxxg-motif-targeting-agents/

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Country

Canada

Title of project or programme

Investigating the mechanism of Amyloid-beta GxxxG-motif-targeting agents

Source of funding information

CIHR

Total sum awarded (Euro)

€ 543,816

Start date of award

01/04/2014

Total duration of award in years

5.0

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords
Research Abstract

Alzheimer disease (AD) is the most prevalent neurodegenerative disorder, estimated to currently affect over 35 million people worldwide. As the most common form of AD is age-related and life expectancy continues to increase, a dramatic rise in the incidence of AD is anticipated and the number of people suffering from this debilitating disease is expected to nearly double every 20 years. This clearly demonstrates that AD is among the most significant

social, health and economic burdens of the 21st century. The degenerative process is made worse by the toxic actions of a specific protein that accumulates inside the Alzheimer brain, known as amyloid (Abeta). Since healthy aging is possible, we assume that cognitive decline is not an inevitable outcome. Given the significance of toxic amyloid aggregates for the pathogenesis of AD, our exciting new approach is that we propose to test selected drugs active in inhibiting and/or neutralizing the neurotoxic properties. The overarching objective of this proposal is to find out exactly how such agents target the toxic amyloid and how they interfere with the formation of these disease-causing aggregates. In summary the proposed studies are a direct response to (i) the new interest in understanding molecular processes of amyloidogenesis and (ii) the recent developments in prevention and early detection of amyloid aggregates. The anticipated results could generate novel therapeutic approaches based on a better mechanistic understanding of amyloid sequence interactions. This work will lead to the development of novel preventive or curative AD treatments and contribute towards a better understanding of AD pathogenesis.

Lay Summary
Further information available at:

Types:
Investments > €500k

Member States:
Canada

Diseases:
Alzheimer's disease & other dementias

Years:
2016

Database Categories:
N/A

Database Tags:
N/A