Identification of insulin signalling factors that delay age-related memory impairment

Fact Sheet

Project Information

AGE-MEMORY

Grant agreement ID: 709015

Project website

DOI
10.3030/709015

Project closed

EC signature date
19 April 2016

Start date
1 June 2016

End date
31 May 2018

Funded under
EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions

Total cost
€ 164 653,20

EU contribution
€ 164 653,20

Coordinated by
IDRYMA TECHNOLOGIAS KAI EREVNAS
Greece

Objective

Elucidation of the biological mechanisms that govern ageing can facilitate the discovery of evolutionarily conserved factors, which denominate physiological deterioration in humans. Here we will study the effect of insulin/insulin like growth factor signalling (IIS), shown to delay ageing in several organisms, on age-related memory impairment (AMI). We will use both C. elegans and Drosophila as experimental platforms, to test evolutionarily conservation of findings. Longevity

combined with memory experiments will be applied in several IIS mutants. We will dissect IIS to find putative mediators of IIS effects on cognitive function. To identify relative mechanisms we will measure activity of known AMI regulators in IIS mutants. Depending on our results, our study will expand on transcription profiling worms and flies IIS mutants of different ages. Neuronal genes differentially affected by IIS will be further studied. We will use novel imaging techniques to characterize morphological changes that occur through ageing in the nervous system. This study is a first step to identify universal mechanisms that underlay cognitive function decline. Pharmacological manipulation of such mechanisms could delay AMI in humans.

Fields of science (EuroSciVoc)

natural sciences > biological sciences > neurobiology > **cognitive neuroscience**

medical and health sciences > basic medicine > neurology > dementia > **alzheimer**

natural sciences > biological sciences > molecular biology > **molecular neuroscience**

Programme(s)

H2020-EU.1.3. - EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions MAIN PROGRAMME

H2020-EU.1.3.2. - Nurturing excellence by means of cross-border and cross-sector mobility

Topic(s)

MSCA-IF-2015-EF - Marie Skłodowska-Curie Individual Fellowships (IF-EF)

Call for proposal

H2020-MSCA-IF-2015

See other projects for this call

Funding Scheme

MSCA-IF-EF-ST - Standard EF

Coordinator

IDRYMA TECHNOLOGIAS KAI EREVNAS

Net EU contribution

€ 164 653,20

Total cost

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Address

N PLASTIRA STR 100
70013 Irakleio
Greece

Region

Νησιά Αιγαίου > Κρήτη > Ηράκλειο

Activity type

Research Organisations

Links

Contact the organisation Website
Participation in EU R&I programmes
HORIZON collaboration network

Last update: 5 April 2023

Permalink: https://cordis.europa.eu/project/id/709015