Disentangling the contributions of dopamine and amyloid burden to age-related changes in cognition and brain network connectivity in healthy older adults

Fact Sheet

Project Information

AMYDA

Grant agreement ID: 300217

Project closed

Start date
1 April 2013

End date
31 March 2016

Funded under
Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013)

Total cost
€ 258 766,20

EU contribution
€ 258 766,20

Coordinated by
UMEA UNIVERSITET
Sweden

Objective

Normal aging is associated with declines in episodic memory and executive functions. Research suggests that around 20-50% of clinically healthy individuals show significant accumulation of amyloid, one of the hallmark biomarkers of Alzheimer's disease but it has been difficult to establish the functional impact of amyloid burden in healthy older adults. Decreases in dopaminergic functioning in old age have been shown to mediate age-related changes in various cognitive domains. This project uses state-of-the-art positron emission tomography, functional magnetic resonance imaging and sensitive neuropsychological testing to disentangle the functional impact of amyloid pathology from those of dopaminergic effects on cognition in clinically healthy older individuals. It is hypothesized that dopamine and amyloid burden will have dissociable effects on cognition and brain network connectivity. The results of the proposed project will have important implications for characterizing the early preclinical phase of Alzheimer's disease and aid the development of strategies for early identification of incipient neuropathological processes. The research will take place during the 24-months outgoing phase at Harvard University and Massachusetts General Hospital in Boston, MA, USA, and be followed by a 12-months reintegration phase at the Umeå Center for Functional Brain Imaging in Sweden. This IOF will lead to new insights into the neurobiological processes of cognitive aging and early Alzheimer's disease, contribute to the accumulation of scientific skills and excellence in Europe, and enhance the career opportunities of a young female researcher in Europe.

Fields of science (EuroSciVoc)

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

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

medical and health sciences > basic medicine > **pathology**

engineering and technology > medical engineering > diagnostic imaging > **magnetic resonance imaging**

Programme(s)

FP7-PEOPLE - Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013)

Topic(s)

FP7-PEOPLE-2011-IOF - Marie Curie Action: "International Outgoing Fellowships for Career Development"

Call for proposal

FP7-PEOPLE-2011-IOF
See other projects for this call

Funding Scheme

MC-IOF - International Outgoing Fellowships (IOF)

Coordinator

UMEA UNIVERSITET

EU contribution

€ 258 766,20

Total cost

No data

Address

UNIVERSITETOMRADET
901 87 Umea
Sweden

Region

Norra Sverige > Övre Norrland > Västerbottens län

Activity type

Higher or Secondary Education Establishments

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/300217