Imaging cerebral vascular alterations and their modulation in experimental models: a translational approach

https://www.neurodegenerationresearch.eu/survey/imaging-cerebral-vascular-alterations-and-their-modulation-in-experimental-models-a-translational-approach/

Principal Investigators

Karen Horsburgh

Institution

University of Edinburgh

Contact information of lead PI
Country

United Kingdom

Title of project or programme

Imaging cerebral vascular alterations and their modulation in experimental models: a translational approach

Source of funding information

Alzheimer's Research UK

Total sum awarded (Euro)

€ 136,710

Start date of award

01/09/2013

Total duration of award in years

3

Keywords
Research Abstract

Alterations in the vascular system, supplying blood to the brain, may be the primary trigger in the development of sporadic Alzheimer’s disease (AD) and cause memory loss. The ability to detect and improve vascular alterations could be critical to improve the prognosis of the disease. A brain imaging technique known as magnetic resonance angiography (MRA) is commonly used to visualise human brain vasculature. This approach has been modified for

imaging rodent vasculature, known as contrast enhanced MRA, (CE-MRA) where it may have utility to study vascular changes in mouse models relevant to AD. This studentship will employ well-characterised models relevant to AD which we have evidence cause vascular alterations and now wish to determine whether we can visualise these changes in the brain using in vivo imaging. The effect of drugs that act on the vasculature will also be studied. As part of the project it will be determined whether in vivo imaging approaches are sufficiently sensitive to detect alterations in the brain vasculature in these models. The overarching aim of the proposal is to develop CE-MRA as a non-invasive tool to visualise vascular alterations and to test the effectiveness of putative disease modifying interventions in models of disease.

Further information available at:

Types:
Investments < €500k

Member States:
United Kingdom

Diseases:
N/A

Years:
2016

Database Categories:
N/A

Database Tags:
N/A