Metabolic and vascular contributors to dementia'

Principal Investigators

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Institution

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Contact information of lead PI
Country

United Kingdom

Title of project or programme

Metabolic and vascular contributors to dementia'

Source of funding information

Alzheimer's Society

Total sum awarded (Euro)

€ 469,107

Start date of award

01/10/2015

Total duration of award in years

3

Keywords
Research Abstract
There is compelling evidence to suggest that Alzheimer's disease (AD) is fundamentally a metabolic disease
resulting from progressive deficits in cerebral energy metabolism, triggered by vascular pathologies. It is vital that
the underlying mechanisms are determined to identify targets amenable to intervention. To address this requires
development and training of the next generation of dementia researchers with the skills to tackle this growing
problem. Our universities have pledged their support and committed additional funding to

enable the training of 8
PhD students. We propose to encompass the students within a co-ordinated and planned training programme
supported by an existing network of research groups with specific expertise in metabolic and vascular disease
from molecule to Man. State-of-the-art and new technologies will be employed that span from cellular and brain
energetics, metabolomics (including proteomics and lipidomics), novel biophotonic technology for manipulation
and imaging the brain from the cellular level of the neurovascular unit (confocal and light sheet imaging) to whole
brain (MR/DTI), measurements of rodent cognition and from cellular to transgenic animals through to human
studies. The overall outcome will be to provide new insights as to how vascular and metabolic factors lead to
dysfunction of neuronal networks and progressive cognitive decline.

Further information available at:

Types:
Investments < €500k

Member States:
United Kingdom

Diseases:
N/A

Years:
2016

Database Categories:
N/A

Database Tags:
N/A