

Neurovascular dysfunction in Alzheimer's disease: the search for early biomarkers

<https://www.neurodegenerationresearch.eu/survey/neurovascular-dysfunction-in-alzheimer%c2%92s-disease-the-search-for-early-biomarkers/>

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Country

United Kingdom

Title of project or programme

Neurovascular dysfunction in Alzheimer's disease: the search for early biomarkers

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Alzheimer's Research UK

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Research Abstract

More than any other organ of the body, the brain is dependent on a continuous blood supply to deliver nutrients. If blood supply is halted, even temporarily, severe and irreversible damage can occur. Active brain regions have high energy demands, and the brain has important mechanisms that act to increase blood supply to areas that need it most. One theory suggests that a major contributory factor to the development of Alzheimer's disease (AD) is a breakdown in the control of blood flow, which causes increased stress to vulnerable brain cells. This project will investigate whether blood flow regulation in the brain is failing in a mouse model of AD over the life span of the animal. We will use powerful methods to measure changes in blood flow that

can also be used on humans. It is possible that a breakdown in the regulation of blood flow could be happening early in the disease process. If true, we will be able to develop imaging techniques to detect these changes before the patients know they have the disease, similar to the screening done for cervical cancer. In this way treatments could be given much earlier and with a greater chance of success.

Further information available at:

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Investments < €500k

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United Kingdom

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