

# Targeting perivascular innervation and vascular tone for improved clearance of $\beta$ -amyloid from the brain

<https://neurodegenerationresearch.eu/survey/targeting-perivascular-innervation-and-vascular-tone-for-improved-clearance-of-s-amyloid-from-the-brain/>

## Principal Investigators

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## Institution

The Open University

## Contact information of lead PI Country

United Kingdom

## Title of project or programme

Targeting perivascular innervation and vascular tone for improved clearance of  $\beta$ -amyloid from the brain

## Source of funding information

Alzheimer's Research UK

## Total sum awarded (Euro)

€ 501,318

## Start date of award

01/11/2015

## Total duration of award in years

4.0

## The project/programme is most relevant to:

Alzheimer's disease & other dementias

## Keywords

### Research Abstract

Cerebral amyloid angiopathy (CAA), the accumulation of the toxic protein  $\beta$ -amyloid (A $\beta$ ) in the blood vessels of the brain, is observed in the majority of Alzheimer's disease (AD) patients.

CAA damages blood vessels and contributes to dementia but the cause of CAA is unknown. Maintaining a constant removal of A $\beta$  from the brain is important to prevent the development of CAA and AD. A $\beta$  is removed from the brain along the walls of healthy blood vessels by an as-of-yet unidentified driving force that may be related to cerebral blood flow (CBF). CBF is controlled by the release of chemicals onto blood vessels from nerve cells that die during the early stages of AD. This project will determine whether CAA results from a loss of communication between nerve cells and blood vessels, which reduces the driving force of clearance and leads to accumulation of A $\beta$  as CAA. It will also evaluate whether drugs that increase levels of nerve cell chemicals improve the function of the blood vessels and decrease CAA. The results from this project will provide new insights on how blood vessels mediate the removal of A $\beta$  and highlight novel strategies in the treatment of CAA and AD.

### **Lay Summary**

**Further information available at:**

#### **Types:**

Investments > €500k

#### **Member States:**

United Kingdom

#### **Diseases:**

Alzheimer's disease & other dementias

#### **Years:**

2016

#### **Database Categories:**

N/A

#### **Database Tags:**

N/A