

Complement and microglial activation in mouse models of dementia

<https://www.neurodegenerationresearch.eu/survey/complement-and-microglial-activation-in-mouse-models-of-dementia/>

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Country

United Kingdom

Title of project or programme

Complement and microglial activation in mouse models of dementia

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Alzheimer's Research UK

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01/04/2015

Total duration of award in years

2.4

Keywords

Research Abstract

Complement describes a system of proteins present in blood and tissues that provides an important immune defence against infection; however, complement can also attack self tissues and cause disease. We and others have shown that complement is switched on in the brain in dementia and have suggested that it contributes to cell damage. Precisely how has been unclear but clues from our work in mouse models suggest that it acts on brain cells called microglia to drive damage. Here we propose a detailed study in mouse models of how complement causes changes in microglia and how important these changes are to the development of dementia in the mice. We will use animals engineered to lack crucial parts of

the complement system to test effect on development of dementia, and treat animals with drugs that target key parts of the complement system to identify potential therapies. This short pilot grant will enable us to establish all the models and obtain the preliminary data that will tell us where to focus attention in larger studies that can translate into man.

Further information available at:

Types:

Investments < €500k

Member States:

United Kingdom

Diseases:

N/A

Years:

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