

# Ultra-high field MRI in early Alzheimer's disease: characterising iron deposition

<https://www.neurodegenerationresearch.eu/survey/ultra-high-field-mri-in-early-alzheimer%c2%92s-disease-characterising-iron-deposition/>

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### Country

United Kingdom

## Title of project or programme

Ultra-high field MRI in early Alzheimer's disease: characterising iron deposition

## Source of funding information

Alzheimer's Research UK

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€ 40,538

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01/03/2013

## Total duration of award in years

3.5

## Keywords

### Research Abstract

Iron is essential for healthy brain function but has also been implicated in the progressive brain damage of Alzheimer's disease. This project will use advanced MRI brain imaging techniques, performed on a state of the art MRI scanner, to form detailed pictures to map iron in the brain and look at the way this is related to the structure and functional pathways in the brain. It is known that certain areas of the brain have increased iron deposition in Alzheimer's disease and with highly detailed scanning, provided by our new scanner this can be characterised. Specific regions of the brain have been shown to work together, forming networks. One such network is called the default mode network and this has been found to be altered in Alzheimer's disease.

We will also look at how the iron deposits relate to and interact with the alterations in this network. By gaining greater understanding this may help us find an early iron based MRI marker for detecting and monitoring Alzheimer's disease as well as providing insights into the effect the disease has on the brain.

**Further information available at:**

**Types:**

Investments < €500k

**Member States:**

United Kingdom

**Diseases:**

N/A

**Years:**

2016

**Database Categories:**

N/A

**Database Tags:**

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