

# Do inflammatory mechanisms cause Alzheimer's disease following brain injury?

<https://www.neurodegenerationresearch.eu/survey/do-inflammatory-mechanisms-cause-alzheimer%20s-disease-following-brain-injury/>

## **Name of Fellow**

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## **Funder**

Alzheimer's Society

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## **Country**

United Kingdom

## **Title of project/programme**

Do inflammatory mechanisms cause Alzheimer's disease following brain injury?

## **Source of funding information**

Alzheimer's Society

## **Total sum awarded (Euro)**

€ 252,096

## **Start date of award**

08/05/10

## **Total duration of award in years**

2.6

## **The project/programme is most relevant to:**

Alzheimer's disease & other dementias

## **Keywords**

## **Research Abstract**

Traumatic brain injury (TBI) is proposed to play a critical role in the development of Alzheimer's Disease. We have established in vivo models of brain injury that cause cognitive deficits and accelerate amyloid pathology. This project will build on this work to elucidate the mechanisms by which brain injury can lead to Alzheimer's Disease. The following hypothesis

will be tested: Chronic inflammation caused by mild TBI leads to amyloid and tau pathology and cognitive deficits.

We will address this hypothesis by studying the effects of mild TBI in mouse models of Alzheimer's disease and human post mortem tissue. We will exploit emerging, innovative proteomic technology to identify key protein changes following brain injury. The following aims will be investigated:

(1) To identify the key proteins and signalling pathways involved in inflammation in human brain injury and following in vivo brain injury in AD mouse models.

(2) To determine if a novel, multi-functional anti-inflammatory and anti-oxidant treatment can attenuate amyloid and tau pathology and cognitive decline following brain injury in AD mouse models

**Types:**

Fellowships

**Member States:**

United Kingdom

**Diseases:**

Alzheimer's disease & other dementias

**Years:**

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