

# The role of apoE in mild traumatic brain injury

<https://neurodegenerationresearch.eu/survey/the-role-of-apoe-in-mild-traumatic-brain-injury/>

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### Country

Canada

## Title of project or programme

The role of apoE in mild traumatic brain injury

## Source of funding information

CIHR

## Total sum awarded (Euro)

€ 500,144

## Start date of award

01/10/2012

## Total duration of award in years

5.0

## The project/programme is most relevant to:

Alzheimer's disease & other dementias

## Keywords

### Research Abstract

In North America, traumatic brain injury (TBI) is the leading cause of death and disability for people under 40 years of age. We are only now beginning to understand that concussion is indeed a mild TBI that can have long-term consequences, including an increased risk for Alzheimer's Disease (AD). AD and TBI have similarities and differences that are important to understand. For example, amyloid plaques and neurofibrillary tangles are always found in AD brains, but TBI brains mostly contain tangles with only about 30% also containing plaques. Understanding how TBI triggers amyloid and tangle formation is very important, because

treatments originally designed to block amyloid or tangle formation in AD may also be useful for TBI. Additionally, apoE is by far the most important genetic risk factor for AD and has also been suggested to affect TBI outcome. A major role for apoE in AD is getting rid of amyloid plaques. However, it is not known whether apoE also functions in this way after TBI. Finally, a key question is whether the consequences of TBI are different if the injury is experienced in youth compared to mid-life. The Wellington laboratory will use their unique animal model of concussion to begin to answer these questions.

### **Lay Summary**

**Further information available at:**

#### **Types:**

Investments > €500k

#### **Member States:**

Canada

#### **Diseases:**

Alzheimer's disease & other dementias

#### **Years:**

2016

#### **Database Categories:**

N/A

#### **Database Tags:**

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