

# Short-term memory binding: a sensitive cognitive marker for Alzheimer's disease

<https://www.neurodegenerationresearch.eu/survey/short-term-memory-binding-a-sensitive-cognitive-marker-for-alzheimers-disease/>

## **Name of Fellow**

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## **Institution**

## **Funder**

Alzheimer's Society

## **Contact information of fellow**

## **Country**

United Kingdom

## **Title of project/programme**

Short-term memory binding: a sensitive cognitive marker for Alzheimer's disease

## **Source of funding information**

Alzheimer's Society

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

€ 253,692

## **Start date of award**

04/09/12

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

3.0

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

Alzheimer's disease & other dementias

## **Keywords**

## **Research Abstract**

Early accurate diagnosis of AD is essential in treatment selection, care planning and correct placement in therapeutic trials. Cognitive assessment is vital in the diagnosis of AD. Current assessment tools investigate functions which are also sensitive to the effects of healthy ageing and to non-AD dementias. Short-term memory (STM) binding has proved sensitive to AD but

insensitive to healthy ageing, depression or non-AD dementias. STM binding declines in the preclinical stages of familial AD. The present project investigates (a) whether STM binding declines in MCI, (b) the anatomical underpinnings of STM binding and (c) the functional implications of STM binding deficits. Eighty patients with MCI and 40 controls will be assessed longitudinally with a STM binding task and neuropsychological tasks. To investigate the neural correlates of STM binding, 20 MCI patients and 20 controls will be asked to perform the binding task within the fMRI scanner. To investigate the functional implications of binding deficits, performance of 60 patients with AD and 60 controls on a multimodal binding task (e.g., sounds-objects-locations) will be compared. The outcomes from this project will support the usefulness of STM binding as a marker for AD. Effective methodologies will be introduced in clinical practice

**Types:**

Fellowships

**Member States:**

United Kingdom

**Diseases:**

Alzheimer's disease & other dementias

**Years:**

2016

**Database Categories:**

N/A

**Database Tags:**

N/A