

# Atomic details of antimicrobial peptides at work in live cells

<https://www.neurodegenerationresearch.eu/survey/atomic-details-of-antimicrobial-peptides-at-work-in-live-cells/>

## Principal Investigators

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## Institution

The University of Melbourne

## Contact information of lead PI

### Country

Australia

## Title of project or programme

Atomic details of antimicrobial peptides at work in live cells

## Source of funding information

Australian Research Council

## Total sum awarded (Euro)

€ 330,000

## Start date of award

01/01/2014

## Total duration of award in years

3.0

## The project/programme is most relevant to:

Alzheimer's disease & other dementias

## Keywords

### Research Abstract

Membrane-active peptides, such as antimicrobial and amyloid (Ab) peptides, play an important role in disease. With the growth of antibiotic resistance and increase in Alzheimer's disease, which is epitomised by plaques of Ab, new drugs are required. Although Ab is toxic in neuronal cell cultures and disrupts cell membranes, the mechanism is unknown. Antimicrobial peptides that target bacterial membranes have evolved as a defence mechanism against infection and,

since membranes show little genetic adaptation, could be drug candidates. Model membranes will be developed to elucidate the mechanism of action and key molecular features that determine affinity for membrane lipids of an antimicrobial peptide and full length Ab peptides.

### **Lay Summary**

**Further information available at:**

#### **Types:**

Investments > €500k

#### **Member States:**

Australia

#### **Diseases:**

Alzheimer's disease & other dementias

#### **Years:**

2016

#### **Database Categories:**

N/A

#### **Database Tags:**

N/A