Dementia
RESEARCH COMMUNITY

Research Project

Researcher
Dr Daryl Ariawan, Macquarie University

Project title
Target and prevent toxic effects of tau protein

About the researcher

Dr Ariawan completed her PhD at the University of NSW in the field of synthetic organic chemistry. Currently, Daryl is working at the Dementia Research Centre in Macquarie University with a focus on synthesising novel peptide sequence for disease therapeutics.

About the project
Alzheimer's disease, the most common form of dementia, is caused by abnormal clumps of amyloid-beta plaques and tau tangles, which lead to death of cells in the brains.

In this project, we aim to target and prevent the toxic effects of the tau protein, which we believe will lead to improved clinical outcomes in people with Alzheimer's disease.

Utilising advances in artificial intelligences, we have built models of tau protein complex. Using this information, we have designed novel chemical molecules to disrupt the toxic protein complex. This proposal is focused on testing and optimising these novel compounds in cellular models.