UQ Summer Research Project 2026- SBMS

Project title:	Pathomechanisms in Alzheimer's disease
Hours of engagement & delivery mode	20 – 36 hours per week Onsite St Lucia: Skerman (65)
Description:	Neurodegenerative diseases, including Alzheimer's disease, currently lack a cure, mainly because the mechanisms behind these conditions are still unknown. This project will investigate the crosstalk between the nervous and immune systems in these diseases. Students will have the opportunity to work with neuronal and immune cell cultures, employing biochemical techniques such as western blotting and molecular cloning, as well as advanced imaging methods, including super-resolution microscopy, to uncover the underlying pathomechanisms. Students will work closely with Pranesh Padmanabhan and two postdocs in the lab, as well as with collaborators at the Clem Jones Centre for Ageing Dementia Research and the NHMRC Centre of Research Excellence in Alzheimer's disease at UQ.
Expected learning outcomes and deliverables:	Students will work with a highly interdisciplinary team of neuroscientists, biochemists, and mathematical biologists. The successful candidate will gain experience in cell biology and advanced imaging.
Suitable for:	This project welcomes applications from students with a background in biochemistry, cell biology, or related biological sciences, particularly those considering a PhD in neurodegenerative diseases.
Primary Supervisor:	Dr. Pranesh Padmanabhan p.padmanabhan@uq.edu.au https://biomedical-sciences.uq.edu.au/research/groups/molecular-and-systems-medicine
Further info:	The supervisor MUST be contacted by students prior to submission of an application