

2024 MIPS Seminar Program



19 Jun 2024



12:00 pm to 1:00 pm



LT3

ENTRY PATHWAYS INTO AND OUT OF CELLS

Professor Jennifer Stow, UQ/IMB



Professor Jennifer Stow is a molecular cell biologist and Group Leader at The University of Queensland's Institute for Molecular Bioscience (IMB) in Brisbane, Australia. She is an NHMRC Leadership Fellow, a member of the ARC Centre of Excellence in Quantum Biotechnology (QUBIC) and an Associate Member of EMBO.

Jennifer research explores trafficking and signaling pathways in cells, particularly for the regulation of inflammation, innate immunity and cancer. Stow group are known for their use of live cell imaging to reveal protein trafficking and the involvement of key organelles.

About this seminar:

Dissecting protein trafficking in vertebrate cells underpins our ability to understand and exploit fluid-phase and receptor-mediated pathways for the uptake of proteins, peptides, supplements, nutrients, nanoparticles, nucleic acids and pathogens. Our studies examine differential pathways and mechanisms for entry into macrophages and epithelial cells. Macropinocytosis is the main portal for fluid-phase uptake, with major pathophysiological consequences in immune cells and cancer cells. This is also a major portal for peptide and drug delivery into cells and the development of 3 and 4D live imaging and visualization, coupled with quantitative assays to measure cellular uptake, will be presented.