Abstract

Dendritic cells (DC) use a variety of cell surface receptors to monitor the environment for potential dangers, including cells that have died of non-homeostatic causes (eg. infected cells), to induce appropriate immune responses. One such example is the DC-specific Damage-Associated Molecular Pattern receptor, Clec9A, that is expressed by mouse and human cross-presenting DC.

Clec9A recognises dead cells and facilitates cross-presentation of dead cell-derived Ag and the induction of immune responses. Our research is focussed on elucidating the molecular interactions that underpin Clec9A function, the role of these interactions in mediating immune responses, and on developing Clec9A-mediated approaches for immune modulation.

About the Speaker

Associate Professor Mireille Lahoud heads a research group focussed on Dendritic Cell Receptors, their role in pattern recognition and their application for immune modulation.

Prof. Lahoud completed her PhD and her early postdoctoral training at Monash University, where she focussed on identification of novel DNA binding proteins. She then applied her molecular expertise to the molecular analysis of dendritic cell (DC) subsets in Professor Shortman’s team at The Walter and Eliza Hall Institute. Assoc. Prof. Lahoud’s research focussed on the identification of DC-surface molecules that underpin DC function in mouse and human, and as DC targets for immune modulation. In 2012, she established a research team to focus on Dendritic Cell Receptors at Burnet Institute. In 2015, she relocated her team to Monash University. She is also an Honorary Lecturer of the Mater Resarch Institute-UQ and an Honorary Burnet Institute Senior Fellow.