Redefining Epithelial Cells as Immune Cells

Project duration:	Eight months
Description:	Mucosal epithelial cells in the lung, are uniquely positioned at the interface between the host immune system and an environment teeming with antigens. Decisions about whether to generate pro-inflammatory or tolerizing responses must be continuously made at the respiratory surface. Work from this lab and others has highlighted that respiratory epithelial cells have the appropriate machinery to process and present antigen and have the potential to act as non-professional antigen presenting cells. We are interested in looking at the pathways that regulate epithelial cell antigen presentation, their role and whether this is disrupted with age, making the elderly more susceptible to infection.
Expected outcomes and deliverables:	This project will be undertaken at UQ (Mater Research Institute) within the Translational Research Institute (TRI) which is a collaborative building that incorporates over 1200 research scientists and students. TRI also provides an exceptional research environment with access to state-of-art facilities including flow cytometry, microscopy and a strong network of research support professionals. There is support for PhD students, through UQ as well as Mater Student Committee (sMater). The honours student will learn a range of techniques, in particular, flow cytometry, histology, Confocal Microscopy and pre-clinical animal work. There is a potential of extending the honours project into a PhD project.
Suitable for:	Highly motivated individual with an interest in immunology and a willingness to progress work with further studies (PhD) after completing the Honours.
Primary Supervisor:	A/Prof Sumaira Hasnain
Further info:	If you would like applicants to contact your unit for further information, please provide the relevant contact details here. Please highlight if the supervisor wishes to be contacted by students prior to submitting an application. e: Sumaira.hasnain@mater.uq.edu.au