



Masterclass in Basic Immunology

To be held at the Woodruff lecture Theatre, University of Melbourne, 17 June, 2009.

Registration details: www.microbiol.unimelb.edu.au/IgV

Speakers:



The makings of a killer. CD8 + T cells are important for the control and clearance of infected cells and tumours. **Stephen Turner, (Pfizer Senior Research Fellow, University of Melbourne)** will provide an update on factors that determine CD8+ T cell immunodominance hierarchies, acquisition of CTL signature gene expression and establishment of CD8+ T cell memory.



Understanding the structural and biophysical basis of MHC-restriction and TCR engagement is important for the careful dissection of adaptive immunity. **Jamie Rossjohn (ARC Federation Fellow, Monash University)** will address these issues and discuss the structural basis of T-cell allorecognition and T-cell mediated autoimmunity to provide clear insights into immune dysfunction.



B cell differentiation to plasma cells. Antibody secreting plasma cells are the terminally differentiated effector cells of the humoral immune system. **Lynn Corcoran (NHMRC Senior Research Fellow, WEHI)** will discuss plasma cell generation from B cells under T cell-independent and T cell-dependent conditions, as controlled by intrinsic factors (nuclear transcriptional regulators) and extrinsic signals (antigen, T cells and cytokines).



Regulatory T cells: You can't live without them. Regulatory T cells prevent immune-mediated tissue damage by controlling immune responses to self antigens and pathogens, and may also hamper tumour rejection. **Ian van Driel (Laboratory Head, Bio21, University of Melbourne)** will review what is known about regulatory T cell development, function and mechanisms of action



Joe Trapani (NHMRC Senior Principal Research Fellow, Peter Mac) will provide an update on the molecular and cellular mechanisms of how cytotoxic cells kill cancerous and virus-infected cells. His talk will focus on effector molecules, most notably perforin and a family of proapoptotic serine proteases (granzymes), which are secreted by cytotoxic lymphocytes.



Dendritic cells (DCs) are specialized bone marrow-derived antigen-presenting cells essential for initiating primary T cell immune responses. **Ken Shortman (NHMRC Senior Principal Research Fellow, WEHI)** will review mouse and human DC subtypes and discuss their function in response to various invading pathogens.