

SIgN Immunology Seminar

Prof Graham Le Gros

Director of Research
Asthma & Allergic Diseases Group Leader
Malaghan Institute of Medical Research



Host: Prof Paola Castagnoli
Singapore Immunology Network, A*STAR
Date: Tuesday, 6th December 2011
Time: 10.00am – 11.00am
Venue: SIgN Seminar Room, Immunos Building Level 4, Biopolis

The induction, expression and regulation of Th2 immune responses in allergic disease

Some of the critical unknowns in allergic diseases include, how is the primary Th2 responses first established in an individual, how are these responses maintained for a person's lifetime and why some allergens preferentially promote Th2 responses in only a subset of individuals. To address these questions we have developed a novel experimental system using GFP reporter IL-4 gene knock-in mice to look at the early events of Th2 sensitisation in response to common allergens such as house dust mites, cockroaches, peanuts and nematode worms. We have used this system to study novel physiological models of airway inflammation, skin sensitisation, and oral induced food allergy to describe some of the more salient features of allergic disease initiation and maintenance, with respect to the role of innate cytokines and IL-4 gene regulation.