SIgN Research Centre

Singapore Immunology Network
A*STAR

# SIgN Immunology Seminar

## Prof Jonathan Sprent
## Garvan Institute of Medical Research

## Selective stimulation of T cell subsets in vivo with IL-2/Mab complexes.

*Host*
Prof Paola Castagnoli
Singapore Immunology Network, A*Star

*Date*
Wednesday,
30 May 2012

*Time*
5pm – 5.45pm

*Venue*
SIgN Seminar Room,
Immunos Building
Level 4
Biopolis

Past work showed that the biological activity of cytokines, especially IL-2, in vivo can be augmented by association with specific mabs. Injection of IL-2 bound to certain IL-2 mabs, eg S4B6, leads to selective expansion of cells expressing low-affinity βγ IL-2R, notably memory CD8 cells and NK cells. IL-2/S4B6 complexes have more potent anti-tumor activity in vivo than soluble IL-2 and, unlike IL-2, are relatively non-toxic and fail to cause expansion of suppressive CD4 T regulatory cells (Tregs). By contrast, IL-2 complexed with other IL-2 mabs such as JES6-1 induces selective expansion of cells expressing high-affinity αβγ IL-2R, notably Tregs and NKT cells. The use of IL-2/ES6-1 complexes to induce prolonged tolerance of tissue allografts in mice without the need for immunosuppression will be discussed.