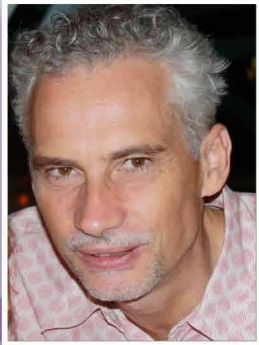


IMCB Invited Speaker



Speaker : **Assoc. Prof. Edward Manser**
*Principal Investigator, Neuroscience Research Partnership, A*STAR*

Date : 5 September 2012 (Wednesday)

Time : 11:00AM - 12: 00 PM

Venue : Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Host : Prof. Wang Yue

Seminar :

PAK to the future: a kinase family whose time has come?

The p21-activated kinases (PAKs) are a family of Ser/Thr protein kinases that are represented by six genes in humans (PAK 1-6), and are found in all eukaryotes sequenced to date. Genetic and knockdown experiments in frogs, fish and mice indicate group I PAKs are widely expressed, required for multiple tissue development, and particularly important for immune and nervous system function in the adult. The enigmatic group II PAKs (human PAKs 4-6) are restricted to metazoans, and likely evolved to regulate signaling at cell-cell junctions. Careful analysis of PAK1 and PAK4 has revealed surprisingly different modes of kinase activation by the Cdc42-like small G-proteins. I will discuss how dis-regulation of PAKs is implicated in several human diseases. Understanding the structure of inactive and active forms of PAKs is, of course, key to developing specific inhibitors for clinical trials.