

# SIgN Immunology Seminar

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## The Non-Inhibitory Serpin Maspin in Heart Disease & Cancer

### *Host*

Dr Anna-Marie Fairhurst  
Singapore  
Immunology  
Network, A\*Star

### *Date*

**Monday,  
30 September 2013**

### *Time*

11am – 12pm

### *Venue*

SIgN Seminar Room  
Immunos Building  
Level 4  
Biopolis

Maspin (Serpine B5) is a non-inhibitory member of the serpin family first identified as a tumour metastasis suppressor in breast cancer. Maspin has cellular effects consistent with this role, it decreases cell migration, proliferation and angiogenesis while increasing adhesion and the tendency to undergo apoptosis. Most commonly studied in cancer models we have a long standing interest in how maspin impacts on VSMC (vascular smooth muscle cells), important in the pathogenesis of atherosclerosis. The mechanisms of action of this multifunctional protein have been widely researched and a number of functions are becoming well established. We are working to identify structural motifs of maspin that are involved in the different influences on cellular behaviour; so far we have identified that the G-helix of maspin is essential and sufficient for reducing cell migration. I will present recent data on screening novel bioactive peptides and how this has provided insights into the mechanism of action of this multifaceted molecule.