



Special Seminar:

Dr Shiang Yong Lim PhD,
Cardiac Regeneration Laboratory,
O'Brien Institute Department,
St Vincent's Institute of Medical Research,
Department of Surgery, University of Melbourne.

Title: Human stem cells for cardiac repair and tissue engineering.

Abstract: Novel cardioprotective strategies to improve clinical outcomes in patients with ischaemic heart disease are an important unmet medical need. Stem cell-based therapies to repair and regenerate lost myocardium are exciting new avenues for treatment of MI. Transplantation of stem cells has been proposed to exert their therapeutic effects through trans-differentiation into cardiovascular cells, or release of trophic paracrine factors. Cardiovascular cells derived from stem cells can also be used to engineer 3D heart tissues that might then be developed to replace and support damaged hearts through surgical transplantation and to test new drugs for heart disease. However, much effort is still needed for clinical realization of these strategies, in particular more efficient and clinically adaptable methods to: 1) obtain human source of cardiovascular cells from stem cells efficiently, 2) promote maturation of cardiomyocytes derived from stem cells, 3) enhance the paracrine activity and survival of transplanted cells, and 4) deliver cells to the infarcted myocardium. My group's research interests consist of multi-disciplinary approaches aim to improve these abovementioned shortcomings and to allow smooth flow of ideas from cell to tissue to animal.

Biography: Dr Shiang Yong Lim completed his PhD in Physiology and Pharmacology from University of Strathclyde (UK). He spent 4 years post-doc research at The Hatter Cardiovascular Institute (University College London, UK) focused on cardioprotection research, in particular the role of the mitochondrial permeability transition pore and the translational value of ischemic conditioning. In 2010, he joined the O'Brien Institute (and now St Vincent's Institute of Medical Research) and was appointed as the head of the Cardiac Regeneration team in 2012. His group focuses on combining stem cell technology and tissue engineering approach to repair and regenerate damaged heart.

Date & Time: Thursday 30 November at 11.00 am.

Venue: Lowy Cancer Research Centre, Level 2, Room 223.

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