



STEM CELL SOCIETY
SINGAPORE

STEM CELL SOCIETY SEMINAR ANNOUNCEMENT

27 February 2013, Wednesday, Aspiration Theatre, Matrix Building Level 2M
30 Biopolis Street, Singapore 138671

PROGRAMME

4.30 - 5.30pm

Dr Stuart COOK

Professor of Clinical and Molecular Cardiology, Duke-NUS & Senior Consultant, NHC

" Cardiac myocytes derived from induced pluripotent stem cells for disease modelling of the heart – what next?"

5.30pm onwards

Networking (brought to you by Stem Cell Society Singapore)

Hosted by

Huck Hui NG

President, Stem Cell Society and ED, Genome Institute of Singapore



SPEAKER

Dr. Stuart Cook, *Duke-NUS & NHC*

Cardiac myocytes derived from induced pluripotent stem cells for disease modelling of the heart – what next?

Abstract

Cardiac myocytes derived from induced pluripotent stem cells (iPSCs) have been the subject of great interest over the last few years. There have been notable successes in the modelling of inherited cardiac conditions that describe Mendelian inheritance defined by highly penetrant mutations. These studies have recapitulated many cardinal cellular phenotypes underlying electrical and mechanical dysfunction of the heart. However, there are limitations to use of iPSC-derived cardiac myocytes that are immature with regard to electrical, metabolic and contractile properties. In addition, the question arises as to what can be achieved using these cellular models of human heart disease now that they had been established. In this talk I will review the current state of play and discuss future possibilities and pitfalls for the field of iPSC-derived cardiac myocyte research.

Biography

Prof Cook qualified in medicine at St Bartholomew's hospital. He completed house jobs in London, obtained his MRCP and then did a PhD at the National Heart and Lung Institute. He undertook a three-year Post-Doctoral training post at Harvard funded by a Wellcome Trust International Prize Travelling Fellowship. He returned to the UK to complete his training in clinical Cardiology and was awarded a Department of Health Clinical Scientist Award in 2004. In 2008 he was appointed to Senior Lecturer at Imperial College, Group Head in Molecular Cardiology at the MRC Clinical Sciences Centre and Honorary Consultant at the Hammersmith Hospital. In 2009 he was appointed as Head of Genetics at the Cardiovascular Biomedical Research Unit at the Royal Brompton NHS Trust and was made Professor of Clinical and Molecular Cardiology at Imperial College in 2010.

In 2012 he was granted a Singapore Translational Research Investigator (STaR) Award and appointed as Professor of Clinical and Molecular Cardiology at Duke-NUS and senior consultant at the National Heart Centre Singapore. He heads a cross-disciplinary research team with the overarching goal of identifying new genes and pathways for heart disease to reveal new biology and inform the development of diagnostics and therapeutics.