

# UTILIZING HUMAN PLURIPOTENT STEM CELLS FOR DISEASE MODELLING AND TISSUE REGENERATION

Human pluripotent stem cells are important biotherapeutics for regenerative medicine because of their innate ability to self-renew and to restore the structure and function of damaged adult tissues. As such, they are instrumental for both basic and translational biomedical sciences as they enable human diseases to be modelled in vitro and to provide a potential source of tissue specific cell types for cell-based therapy. In this talk, I will summarize some of our previous work, as well as on-going studies on how we can utilize human pluripotent stem cells for tissue repair, disease modelling and therapeutics development.

## ABOUT THE SPEAKER

Dr Soh Boon Seng obtained his B.Sc. (1st Class Honours) from NUS. As an A\*STAR Graduate Scholarship (Overseas) recipient, he did his Ph.D. thesis on the optimization of hES cell culture and differentiation towards pulmonary stem cells under the co-supervision of Prof Athanasios Mantalaris, Ph.D. (Imperial College) and Prof Bing Lim, MD, Ph.D. (Genome Institute of Singapore). In 2011, he joined the laboratory of Prof Kenneth Chien, MD, Ph.D. at Harvard University to work on the biology of multipotent cardiac stem cells, in both murine and human based model systems. His research focus has always been clinically driven with emphasis on understanding the underlying molecular and cellular mechanisms in diseases and development of therapies. His current research interests focus on modelling human diseases of the heart and lung, and establishing both in vitro and in vivo therapeutic screening platforms.

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Seminar Room  
MD10, Level 2, Anatomy Museum