The Singapore Bioimaging Consortium (SBIC)
presents a seminar

on

"Preclinical Cardiovascular Magnetic Resonance Phase Contrast Imaging"

Speaker: **Dr Moritz Braig**
Medical Physics
Department of Radiology
University Medical Center Freiburg

Host : Dr Lee Kuan Jin
Date : Tuesday, 3 May 2016
Time : 2.00pm – 3.00pm
Venue : SBIC Seminar Room
11 Biopolis Way
Level 2, Helios Building, Singapore 138667
(Please enter via Level 1)

Abstract

Magnetic Resonance Imaging (MRI) is a viable tool in preclinical imaging to study diseases and monitor their progress as it is not invasive. Commonly magnitude images are used. However so called phase contrast MRI does not simply use the magnitude information but utilizes the phase of the MRI signal to measure tissue and blood velocities. It can derive valuable information for the study of cardiovascular pathomechanisms and assess cardiovascular functionality. The talk will introduce general cardiovascular MRI principles and review the main applications of 4D flow imaging: its role in the analysis of embolic stroke, valve impairment and atherosclerosis. One focus of the talk will be the - non trivial - translation of this method to preclinical MR imaging. Here it could evolve as a promising method for preclinical cardiovascular research using mouse models of cardiovascular disease.

About the Speaker

Dr Moritz Braig studied physics at the University of Freiburg, Germany. In 2012, he started his research at the department of Medical Physics lead by Prof H.C.J. Hennig. In 2015, Dr Braig joined National Sun Yat-Sen University (國立中山大學) in Taiwan as a visiting researcher under supervision of Prof. Cheng-Wen Ko. His current work as a PhD candidate in the department of Medical Physics in Freiburg focuses on the analysis of blood flow in the murine aorta.

--- Admission is free and all are welcome ---