



The Singapore Bioimaging Consortium (SBIC)
presents a seminar

on

“Metabolic markers of disease assessed by MRI”

Speaker: Xavier Golay
Professor of Neurophysics and Translational Neuroscience
Institute of Neurology
University College of London, UK

Date : Thursday, 3 May 2012
Time : 11.00am – 12.00pm
Venue : SBIC Seminar Room
11 Biopolis Way
Level 2, Helios Building
Singapore 138667
(Please use Level 1 entrance)

Abstract

Magnetic resonance imaging is used more and more to measure physical parameters in a reliable way, rather than simply provide images for the radiologist. One of the main driving forces behind this shift has been the recognition of its role in establishing imaging biomarkers in several diseases. Such biomarkers have been increasingly used as secondary outcome measures in clinical trials, and might one day be used as primary outcome measures. Among all MRI methods, those accessing several parts of the metabolic pathway (such as ¹H or ³¹P MRS, measurement of oxygenation or perfusion, total sodium imaging or more recently direct visualisation of glucose uptake) play an important role, as they are likely to be similar in both experimental animal models and human diseases. In this presentation, I will show examples of such MRI-based biomarkers, producing parameters that can be estimated, together with its precision and potential bias. I will also demonstrate how such parameters can serve as important tool to reduce the translation time from bench to bedside in experimental medicine.

About the Speaker

Xavier Golay is a Professor of Neurophysics and Translational Neuroscience at the UCL Institute of Neurology. He received his PhD on Functional MRI at the Swiss Federal Institute of Technology of Zurich (ETHZ), where he worked as a research assistant in the group of Professor Peter Boesiger. His research interests include the development of MRI as a translational tool for neurological diseases, aiming at measuring identical image-based biomarkers from mouse to human, and from the

laboratory to the clinical settings. Dr Golay has served on many committees of the ISMRM and ESMRMB including on the Board of Trustees, he is author on more than 100 journal articles and a member of the Editorial Board of NMR in Biomedicine and Magnetic Resonance Materials in Physics, Biology and Medicine.

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