



The Singapore Bioimaging Consortium (SBIC)
presents a seminar

on

"Clinical Applications of MR Spectroscopy : A Critical Review"

Speaker: Prof Patrick Cozzone
Centre de Résonance Magnétique Biologique et Médicale
Marseille University
France

Date : Thursday, 15 Aug 2013
Time : 11.00am – 12.00pm
Venue : Aspiration Theatrette
30 Biopolis Street
Level 2M, Matrix Building

Abstract

After a brief presentation of the main research activities and strategies conducted at CRMBM in preclinical (rodents) and clinical multimodal MR, the current status of clinical Magnetic Resonance Spectroscopy (MRS) will be reviewed. Applications to brain, heart, skeletal muscle, breast and prostate will be illustrated, drawing from expertise acquired over the years at CRMBM. By providing non-invasively detailed information on the biochemical processes taking place in living tissues, MRS, as a molecular imaging method, has significantly contributed to advancing scientific knowledge of the metabolic underpinnings of a number of pathologies. It also plays a role in the quantitative assessment of various therapeutic interventions (clinical trials). In most cases, clinical MRS exploration on humans has to be performed in conjunction with other MR modalities (the "multimodal MR approach") in order to provide useful pronostic and diagnostic information. MRS real impact and added value in advancing human health will be discussed.

About the Speaker

Patrick J. Cozzone is Professor of Biophysics at the Faculty of Medicine, Aix-Marseille University (AMU) and a consultant in medical imaging at the University Hospital. He holds a PhD in Biochemistry (Marseille) and a MBA (Chicago). He has previously held research/faculty positions at Stanford University, the University of Tunis (Tunisia) and the Institute of Biological Chemistry in Marseille. He is the founder and director of CRMBM (Centre de Résonance Magnétique Biologique et Médicale), a research unit with a staff of 80 specializing in biomedical MR (animals and humans), jointly operated in Marseille by CNRS, AMU and the University Hospital. He is the south of France coordinator of the French Life Imaging initiative to develop multimodal *in vivo* bioimaging. P. J. Cozzone has co-authored over 400 peer-reviewed papers and directed 40 PhD theses. He has served in several

French research agencies (CNRS, INRA, ANR, etc.) and international organizations, was a bioscience adviser to the French Minister of Research, has presided ESMRMB, and is currently a member of the IUPAB Executive Committee. He is the Editor-in-chief of MAGMA and a fellow of ISMRM. He is a honorary member of the Academic Institute of France and was knighted in the French national order of the Legion of Honor in 2013.

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