



Nanoscale Organisation
and Dynamics Group

Magnetic Resonance in life Sciences: Progress and Future Quests

Saad Ramadan, PHD

**School of Health Sciences, Faculty of Health and Medicine, University of Newcastle
Hunter Medical Research Institute, New Lambton Heights**

Abstract

Magnetic resonance has changed the way healthcare is delivered. Whether it is magnetic resonance imaging (MRI), spectroscopy (MRS), or NMR, the role of magnetism in healthcare, science and basic research is becoming more prominent and has the ability to influence our lives in unimaginable ways. Recent progress and findings in cutting edge MR research in breast cancer, multiple sclerosis, and prostate disease at UON will be presented and discussed. Focus will be on novel pulse sequences and their application to human disease.

Profile

Saad Ramadan is the Facility Manager of Hunter Medical Research Institute and University of Newcastle MRI Imaging Center, and a senior lecturer at the School of Health Sciences. He received his PhD from the School of Chemistry, The University of Sydney. Amongst the subjects that he has studied and researched are: metabolism of red blood cells by NMR techniques, stomach ulcer metabolism using NMR, in vivo pulse programming on Siemens (Syngo) platforms (1D and 2D magnetic resonance spectroscopy), In vivo correlation spectroscopy (COSY), in vivo editing sequences, MRI diffusion weighted sequences and MRS of in vivo breast cancer. His research activities are focussed on utilising MR technology and developing novel MR imaging and spectroscopic techniques for investigation of human disease, as well as analysis and data post processing. Current focus areas include: multiple sclerosis, prostate cancer, spectral sparse sampling as well as method and technique development.

Staff and students at all levels are welcome to attend.

Venue and Time:

2 pm Friday 24 June at the Campbelltown Campus in Lecture Theatre 5 (CA-21.G.03).

Enquiries:

Prof. William S. Price

Ext. 3336

e-mail: w.price@uws.edu.au