

Nanoscale Organisation and Dynamics Group

University of Western Sydney



Novel MR Molecular Imaging Development -From Spin and Molecular Dynamics to in vivo Studies

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Dr Dennis Hwang will present a lecture entitled “Novel MR Molecular Imaging Development - From Spin and Molecular Dynamics to in vivo Studies”.

MRI is one of the most important noninvasive methods in modern clinical diagnosis. Contrast improvement is a critical issue in the development of MRI techniques. Contrast enhancements can help physicians identify the lesion much easier and decrease the chances of misreading. There are two ways to enhance contrast in MRI: (1) the application of contrast agents such as paramagnetic nanoparticles and (2) the manipulation of spin dynamics. In this presentation, new contrast agent design, in vitro NMR relaxivity studies and hardware developments for MRI contrast enhancement will be presented. It is hoped that such developments will lead to significant improvements in the diagnostic ability of MRI.

Dr Dennis Hwang majored in physical chemistry. His research interests focus on NMR relaxation theory and MRI applications. He is also interested in the design of MRI consoles to enhance MRI contrast. His research spans basic theory to biomedical applications.

Staff and students at all levels are welcome to attend.

Venue and Time:

This talk will be held on Tuesday August 9 at 14:00 at the Campbelltown Campus in Building 21, Lecture Theatre 6 (C 21.G.18).

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