

SCHOOL OF CHEMISTRY AND PHYSICS

Research Seminar

FRIDAY NOVEMBER 6TH, 2009

2:10 PM

RENNIE LECTURE THEATRE



THE UNIVERSITY
OF ADELAIDE
AUSTRALIA

MOLECULAR IMAGING: THE ROLE OF CHEMISTRY IN MEDICAL DIAGNOSTIC IMAGING

By

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Abstract:

Molecular imaging is a clinical and biomedical research discipline that utilises signals from molecular probes to generate non-invasive images of living subjects. These images allow the localisation, characterisation and quantification of molecular and cellular processes in normal or diseased tissue in-vivo. The molecular probes are useful for imaging through physical processes such as radioactive decay (nuclear imaging), emission of light (fluorescence or bioluminescence), or via interaction with sound (ultrasound) or magnetism (MRI). Chemists play an important role in molecular imaging through rational design, synthesis and analytical quality control of molecular imaging probes such as radiopharmaceuticals. In this presentation, examples of radiopharmaceuticals in routine clinical use and at the frontiers of research will be highlighted.

Recently, the SA Government earmarked placing major molecular imaging infrastructure in the new South Australian Health & Medical Research Institute (SAHMRI) to be built on North Terrace in 2012. If the SA Government commits to establishing these resources, the door will open for new and exciting Adelaide-based research and career opportunities for chemists in the field of molecular imaging.

EVERYONE WELCOME

For all other seminar enquiries please contact Tara Pukala at 8303 5497 or tara.pukala@adelaide.edu.au