

CBC SEMINAR ANNOUNCEMENT



Professor Graham Jones
Northeastern University

Technology Assisted Synthesis of Biomedical Imaging Agents

Advances in flow and microwave technology have greatly accelerated discovery chemistry through optimization of syntheses and affording access to intermediates inaccessible via conventional methodologies. One aspect of current interest is the preparation of radiolabeled agents for subsequent application to *in vivo* SPECT and PET imaging in early stage preclinical screening. In this presentation we will firstly highlight a three component coupling method that allows rapid assembly of fluoroalkyl, fluorovinyl and fluoroalkynylated arenes from readily available precursors. Applications in the synthesis of CNS and cardiovascular agents will be presented, together with potential for ^{18}F labeled analogs to allow PET imaging. Flow methodology has also been applied for the radio tagging of proteins and antibodies to allow *in vivo* biodistribution studies to be undertaken using short and medium half-life radionuclides. In addition, flow methodologies are currently being applied to the construction of complex heterocyclic targets using a range of pericyclic and insertion reactions which will be discussed, together with future applications in the area of immobilized reagents / catalysts.

Date:	4th June 2012 (Monday)
Time:	2:00pm – 3:30pm
Venue:	NTU SPMS CBC Building Level 2, Conference Room
Host:	Assoc Professor Roderick Bates