



Nanoscale Organisation
and Dynamics Group

Developing Streamlined Flow Synthetic Methodologies

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Abstract

It is estimated that for every kilogram of a fine chemical produced by the pharmaceutical industry 5-100 times that amount of chemical waste is generated. Making the transition from inefficient and waste intensive processes requires a significant change in approach and technologies. In this respect, flow reactors and continuous flow processing technologies are an emerging and potentially viable alternative to wasteful conventional synthetic processing. However, if flow chemistry is to be embraced by the broader synthetic community, several significant limitations need to be addressed.

In this presentation, we will describe the development and practical applications of several flow protocols which we have employed to access an array of biological import chemical scaffolds. Recently, our group have reported a variety of protocols to effect chemoselective reductions, cycloadditions palladium-based aryl-aryl couplings, $C(sp^3)$ - $C(sp^3)$ couplings, and expedited protocols for peptide assembly.

Profile

Christopher Gordon obtained his Ph.D. from the University of Wollongong under the guidance of Prof. Paul A Keller in 2007. Following a postdoctoral position at the University of Newcastle within the McCluskey laboratories, he moved to the University of Nottingham where he gained an interest in bacterial quorum sensing. In 2013 Christopher returned to Australia under an ARC DECRA fellowship to pursue an ongoing interest in the applications of flow chemistry within the medicinal chemistry sphere. Currently, Christopher is appointed as a Senior Lecturer of Organic and Medicinal at Western Sydney University Australia.

Staff and students at all levels are welcome to attend.

Venue and Time:

This talk will be held on **Thursday 26 November at 1 pm** via ZOOM

Meeting URL: <https://uws.zoom.us/j/83007679445>

Meeting ID: 830 0767 9445

Password: 287657

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