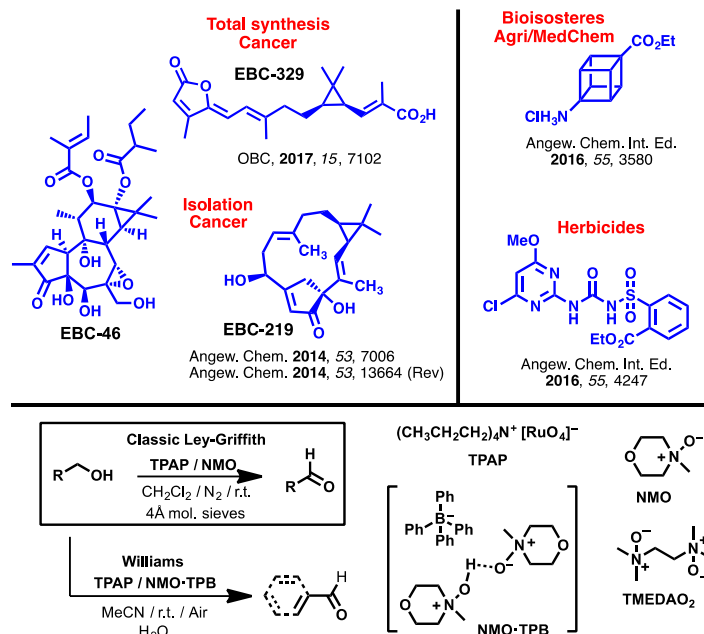


Aspects of Natural Products, Caged Hydrocarbon Bioisosteres, and Synthetic Methodology

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Human health and agriculture have benefitted greatly from both natural products and *de novo* synthetics in terms of medicines in the clinic and the control of food security. Behind the scenes natural product isolation has provided exquisite molecules, with human kind developing elegantly simple compounds, both being very effective in controlling numerous biological pathways. Organic synthesis continues to be a crucial part of these endeavours through total and target orientated synthesis, underpinning biological evaluation (SAR), candidate development and process chemistry. Omnipresent in this field are opportunities to provide student training, discover technical innovations and stimulate academic learning, not to mention opening tangential opportunities in discovering new synthetic methodology, physical organic and medicinal/agri chemistry. The lecture will canvas some of these concepts using select examples above and more.

Biography: Prof. Williams obtained a B.Sc. (Hons) and Ph.D (1997) in synthetic organic chemistry from Flinders University (South Australia) under the supervision of Prof. Rolf Prager. He held an Alexander von Humboldt post-doctorial appointment at the University of Göttingen in Germany (Prof. Armin de Meijere, 1997-1999) and an Australian National University post-doctorial fellowship in Canberra (Prof. Lewis N. Mander, 1999-2000) before being appointed as a Lecturer in Organic Chemistry at the University of Queensland in 2000. Currently he holds the position of Professor and recently finished a 4 year period as an Australian Research Council Future Fellow. Williams has published over 125 scientific papers, patents, review articles and book chapters, and supervised over 115 researchers to date. His research interests include natural products (total synthesis and isolation), and the medicinal chemistry associated within those areas. He is also interested in developing the area of caged carbocycles to escape flatland and develop new bioisosteres, along with developing acetoxyacid synthase inhibitors.

