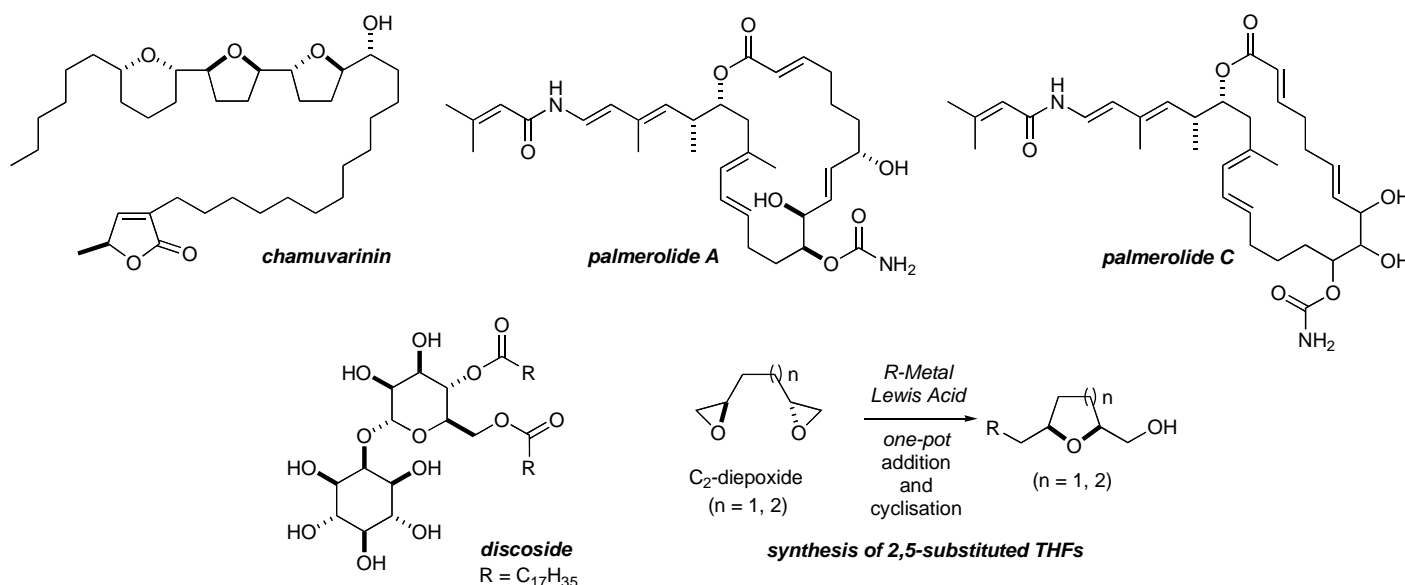




Research Interests: organic synthesis; bioactive natural products and structural analogues; new methods and strategies for asymmetric stereocontrol

Research in our group is concerned with the development of new methods and strategies for the practical synthesis of bioactive natural products. The targets we select represent an exciting range of secondary metabolites that display startling bioactivity in preliminary biological screening, but due to their scarcity, require practical synthetic routes to enable structure determination and allow further biological evaluation of their properties in the quest for new therapeutic agents, while providing platforms for the development of new synthetic methodology. For example, the Annonaceous acetogenin *chamuvarinin* is a potent cytotoxic agent which contains a unique tricyclic THP-bis-THF ring system with undefined stereochemical arrays, while *palmerolide A* and *C* are highly potent and selective cytotoxic marine macrolides for human skin cancer cells, available in trace amounts from an Antarctic tunicate. These target compounds also provide the opportunity to generate novel structural analogues in order to probe the features responsible for their biological activity and mode of action, which in turn can aid future pharmaceutical design.



## SELECTED RECENT PUBLICATIONS

1. "Synthesis of the marine glycolipid octadecanoyl discoside" G. J. Florence, T. Aslam, G. Miller, G. D. S. Milne, S. J. Conway *Synlett* **2009**, 3099-3102.
2. "Efficient access to 2,5-substituted tetrahydrofurans via a one-pot cyclization of di- and triepoxides" G. J. Florence, R. Cadou, *Tetrahedron Lett.* **2008**, 49, 6784-6786.
3. "Total synthesis of reidispongiolid A" I. Paterson, K. Ashton, R. Britton, G. Cecere, G. Choraquai, G. J. Florence, J. Stafford *Angew. Chem. Int. Ed.* **2007** 46, 6167-6171.