

## “Towards the Total Synthesis of Lancifodilactone G”

Lancifodilactone G is a unique nortriterpenoid first isolated from the Chinese plant *Schisandra lancifolia* in 2005 by Sun and coworkers. It exhibits moderate *anti*-HIV activity and mild cytotoxicity, highlighting its potential for further studies. Moreover, it also features the first isolated aliphatic enol within a complex natural product, making it both structurally intriguing and synthetically challenging. Due to its limited natural availability, we aimed to develop a scalable synthesis to enable further biological evaluation and to explore the enol motif's origin and stability.

The seminar will outline our work leading to the development of a convergent first-generation synthesis approach for the complete polyoxygenated carbon skeleton of lancifodilactone G. This includes a concise synthesis of the western and eastern fragments, followed by the endgame synthesis, which successfully assembles the challenging eight-membered ring.

