

Quo Vadis Chemie

Synthesis of Natural Products and Designed Non-natural Bioactive Molecules



which will be delivered by

Prof. Hans-Günter Schmalz

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on 27.11. at 15:00

the Lecture Hall CH2, the School of Chemistry Building, FoS CU, Hlavova 8, Praha 2

Abstract: New insights into bio-molecular mechanisms challenge chemists to design and synthesize small molecules, which influence biological systems as enzyme inhibitors, signaling molecules or specific modulators of macromolecular interactions.

The lecture will highlight the application of enantioselective metal catalysis in synthesis of some bioactive marine diterpenoids such as the pseudopterosines. A second part of the lecture will focus on the synthesis of the antibiotic pestalone. As a third topic, the design and stereoselective synthesis of proline-derived polycyclic scaffolds and their use for the development of low-molecular weight inhibitors of protein-protein interaction. Finally, a short view on the development of enzyme-triggered carbon monoxide-releasing molecules (ET-CORMs) as potential therapeutic agents will be given.