“Natural and not so Natural Products: From Medicinal Chemistry to Bed Bug Communication”

Résumé: Our research encompasses several aspects of natural product chemistry and drug discovery. Specifically, we are engaged in the structural identification and large scale synthesis of insect pheromones as well as the development of synthetic methods and strategies to access stereochemically rich heterocyclic natural products as leads for drug discovery. Central to our research philosophy is an emphasis on step economy and flexibility. This seminar will highlight some of our advances in deciphering and exploiting the chemical communication system of bed bugs, the development of convenient syntheses of stereochemically rich heterocyclic natural products, and the identification of C-H fluorination strategies for the late-stage modification of drug leads and synthesis of PET imaging agents.