

CHEMISTRY Departmental Seminar

Fall 2017
CHEM 285 Schedule
Tuesdays at 4:30-5:45PM
Room Duncan Hall 250

December 5, 2017

Professor Justin Du Bois
Stanford University

The Molecular Mystique of Nature's Poisons

Small molecule neurotoxins serve as important chemical and pharmacologic tools for studies aimed at understanding the highly complex ionic mechanisms of electrical transmission in cells. The voltage-gated sodium ion channel is a primary site of action for many of these poisonous substances. No less than six discrete receptor sites for neurotoxins have been identified on the pore-forming alpha-subunit of the channel. This lecture will attempt to illustrate how molecular design and chemical synthesis of toxins and toxin derivatives, together with the tools of molecular biology and electrophysiology, can be used to interrogate sodium channel structure and function.