Necessity is the Mother of Invention: Natural Products and the Chemistry They Inspire

The overarching goal of Professor Reisman's research program is to discover, develop, and study new chemical reactions within the context of natural product total synthesis.

Abstract
The chemical synthesis of natural products provides an exciting platform from which to conduct fundamental research in chemistry and biology. Our group is currently pursuing the synthesis of a number of structurally complex natural products, including the diterpenoids ryanodine and talatisamine, and the antibiotic pleuromutilin. The densely-packed arrays of heteroatoms and stereogenic centers that constitute these polycyclic targets challenge the limits of current technology and inspire the development of new synthetic strategies and tactics. This seminar will describe the latest progress in our methodological and target-directed synthesis endeavors.