EASTERN MICHIGAN UNIVERSITY

Chemistry Department

Seminar

Prof. Jennifer Stockdill,

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Monday, Nov. 4th 4:00-5:00 pm Strong Hall 200

Three-Ring Circus: Strategies for Polycyclic Alkaloid Synthesis

Abstract

Tertiary aliphatic amines are a privileged functional group in pharmaceuticals. For example, 51% of FDA approved nervous system drugs possess a tertiary aliphatic amine. However, there is only one neurologic agent with this functionality disposed at a ring junction. This imbalanced representation of structural space likely points to a need for more efficient strategies for the synthesis of these compounds, rather than an inherent problem with these structures as drug agents. We have devised a general strategy to access a variety of such compounds, and in this seminar, a successful example of our approach is discussed in the context of the total synthesis of the plant alkaloids daphniyunnine C and daphnicyclidin A.