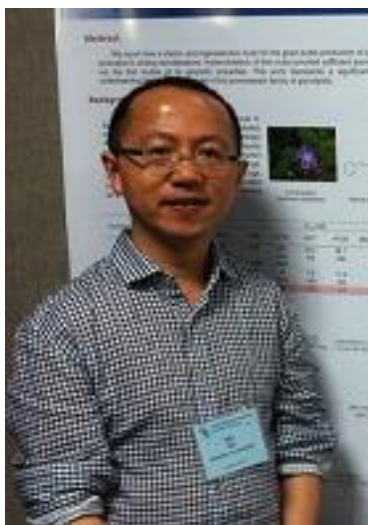




Department of Chemistry and Biochemistry Colloquium Speaker



Prof. Wei Q. Shi

Department of Chemistry and Biochemistry
University of Arkansas, Fayetteville, AR

"Chemistry and Biology of Ipomoeassin Natural Products"

Abstract: Bioactive natural products are a rich source of drug candidates as well as important tools for investigating biological systems. Ipomoeassin F is a flagship congener of a plant-derived macrolide resin glycoside family with an embedded carbohydrate core. It possesses potent cell growth inhibition activity with IC₅₀ values in the single-digit nanomolar range against several cancer cell lines. In the NCI 60-cell line screen, ipomoeassin A, a structural homolog of ipomoeassin F, demonstrated a unique cytotoxicity profile; however, its mode of action remains largely unexplored. We recently accomplished the gram-scale production of ipomoeassin F and have been carrying out systematic studies to understand its structure-activity relationship. To further harness scientific values of this special chemical space, we are currently focusing on chemical proteomics studies of ipomoeassin F to understand its novel mode of action. Results obtained in due course will bring ipomoeassin research to a new phase in the field of chemical biology for drug discovery.

Friday October 21st, 2016

4:00 pm

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**Inquiries can be made of:
Dr. Peter R. Andreana @ 419-530-1930
peter.andreana@utoledo.edu**