



Department of Chemistry and Biochemistry Colloquium Speaker



Dr. Zhongwu Guo, PhD

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Gainesville, FL

"Synthesis and Biological Studies of GPIs and GPI- Anchored Proteins"

Abstract:

Glycosylphosphatidylinositol (GPI) attachment to the protein C-terminus is one of the most common and important posttranslational modifications, and many surface proteins are anchored to the cell membrane via GPIs to play an important role in various biological and pathological events. To explore these events, it is necessary to obtain GPIs and GPI-anchored proteins in homogeneous and structurally well-defined forms, which represents a great challenge. Our research program aims at establishing proper methods to access natural GPIs, GPI-linked peptides/glycopeptides/proteins, and related derivatives and applying them to the study of GPI biology. Accordingly, a series of new chemical and chemoenzymatic strategies have been developed for GPI and GPI conjugate synthesis, and the synthetic molecules have been used to investigate relevant biological problems, such as GPI-cell membrane interactions, GPI-bacterial toxin interactions, and GPI-anchored proteomics analysis.

Friday October 18th, 2019
4:00 pm
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