BIOCHEMISTRY SEMINAR

Nevin Lambert

Professor | Department of Pharmacology & Toxicology | Augusta University

"Lighting up endogenous G proteins and effectors in cells"

Abstract: Heterotrimeric G proteins signal downstream from hundreds of G protein-coupled receptors (GPCRs) and upstream from dozens of effectors. The spatiotemporal organization of these signaling molecules is important for signal transduction but can be difficult to study in living cells with endogenous proteins. We have used genome editing to add fluorescent or luminescent tags to endogenous G proteins and effectors, allowing us to study their localization and movement in living cells in real time. I will give an overview of our studies of endogenous G protein subcellular localization and trafficking and G protein-dependent translocation of downstream effectors.

Bio: Nevin A. Lambert obtained his B.S. at Youngstown State University and his Ph.D. at Kent State University. Following postdoctoral training at Duke University Dr. Lambert joined the faculty of the Medical College of Georgia at Augusta University, where he is Regents' Professor and vice-chair of the Department of Pharmacology and Toxicology. His research focuses on G protein-coupled receptor complexes and regulation of G protein signaling in living cells.

PURDUE UNIVERSITY | James Tarpo Jr. and Margaret Tarpo Department of Chemistry

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