

Celebrating Hispanic Heritage Month: The Southern California Section of the American Chemical Society (SCALACS) showcases seminars by two distinguished scientists as role models for our next generation (funded by the LSAC-DEIR grant).

NATIONAL HISPANIC HERITAGE MONTH VIRTUAL SYMPOSIUM

THURSDAY, OCTOBER 3 • 2 - 4 PM

Title: **ACYLOXYPHOSPHONIUM IONS AS VERSATILE BUILDING BLOCKS IN ORGANIC SYNTHESIS**

Presented by: **Dr. Socrates Munoz, Kansas State University**

Time: **2:00 - 3:00 PM**

Abstract:

This seminar will explore synthetic advances using carboxylic acids directly in both uncatalyzed and catalytic processes. Acyloxyphosphonium ions, derived from carboxylic acids stand as versatile intermediates useful to produce a range of compounds (ketones, aldehydes, acyl fluorides, etc.) through acylative cross-couplings. Additionally, we will examine complementary reactivity such as catalytic decarbonylations, related C–O bond activation and one-electron chemistry.

Prof. Munoz is currently Assistant Professor at Kansas State University conducting research that lies at the intersection of synthetic organic, organometallic chemistry and photoredox catalysis. He obtained his PhD in synthetic and physical organic chemistry at the University of Southern California and continued his postdoctoral studies at the USC's Loker Hydrocarbon Research Institute developing novel fluorination and fluoroalkylation methods. He then joined Caltech as a NIH Postdoctoral Fellow to work on developing enantioconvergent photoinduced Cu-catalyzed cross-coupling reactions.



Title: **QUANTITATIVE MASS SPECTROMETRY FOR UNDERSTANDING EPIGENETIC MECHANISMS**

Presented by: **Professor Benjamin A. Garcia, PhD, FRSC, Washington University School of Medicine**

Time: **3:00 - 4:00 PM**

Abstract:

This seminar will focus on recent advancements in high-throughput quantitative mass spectrometry for analyzing histone post-translational modifications (PTMs) and chromatin structure. We will explore how these technologies are used to study epigenetic reprogramming in malignant peripheral nerve sheath tumors (MPNSTs), an aggressive sarcoma linked to disruptions in the polycomb-repressive complex 2 (PRC2), a key histone-modifying complex involved in gene silencing.

Prof. Garcia joined the Washington University School of Medicine in St. Louis in 2021 to become the Raymond H. Wittcoff Distinguished Professor and Head of the Department of Biochemistry and Molecular Biophysics. He is presently also an Associate Editor of the Analytical Chemistry, and Mass Spectrometry Reviews journals; and serves on the editorial boards for the Molecular Omics, the Journal of Proteome Research and the Molecular and Cellular Proteomics journals. He also serves in the Executive Committee of the American Chemical Society (ACS) Analytical Chemistry Division. An ACS Fellow, Ben has been recognized with many honors and awards, notably the American Society for Mass Spectrometry (ASMS) Research Award, a National Science Foundation CAREER award, an NIH Director's New Innovator Award, and the Presidential Early Career Award for Scientists and Engineers (PECASE).



RSVP: scalacs.org