



Analytical Chemistry Seminar

**Tuesday, April 12, 2022
3:30 PM, WTHR 320**

***“Mass Spectrometry-base Proteome and Lipidome Changes
During Neurodegeneration: From Cellular to Animal Models”***



**Dr. Stephanie M. Cologna
Department of Chemistry
University of Illinois Chicago**

Abstract

Mass spectrometry-based proteomics and lipidomics are powerful strategies to understand molecular mechanisms associated with human disease. We study, Niemann-Pick Type C (NPC), a fatal, progressive neurodegenerative disorder that arises due to improper trafficking of cholesterol. In an effort to understand pathways associated with the downstream consequences of the genetic cause of NPC, we have employed mass spectrometry imaging, quantitative proteomics and lipidomics in multiple models of NPC. Our results have highlighted new markers of the disease, including those that change concomitantly with disease progression as well as insights into possible mechanisms of cell death NPC.