



SoFlacs



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FIU Department of Chemistry and Biochemistry

In-Person & Virtual Seminar

Friday, October 13, 11:00 AM

**Florida International University, AHC3-205
Modesto Maidique Campus – 11200 SW 8th St, Miami**

<https://fiu.zoom.us/j/97919913924?pwd=QXQvYm1BRIBVUEs3Q0RpNmFnUWNZQT09>
Meeting ID: 979 1991 3924; Passcode:5c471f

Dr. Angela K. Wilson

**Past ACS President and
Department of Chemistry and MSU Center for PFAS Research, Michigan State University**

Per- and Polyfluoroalkyl Substances (PFAS): Molecular-level Insight Towards Environmental and Health Challenges and Strategies

Long valued for their unique nature, per- and polyfluoroalkyl substances (PFAS) have been widely utilized in a broad variety of products including fire-fighting foams, fast food packaging, cookware, personal care products from dental floss to shampoos and cosmetics, upholstery and carpeting, and many other items for which water resistant and non-stick properties are desirable. The use of PFAS in so many industrial and commercial applications for over six decades has resulted in their ubiquitous presence in the environment, as these species can move through soils and contaminate water sources, become airborne, and bioaccumulate in animals such as fish and cattle, as well as humans. PFAS have been linked to a multitude of health issues including thyroid disease and cancers. A small number of PFAS have now been banned by the U.S. Environmental Protection Agency and by various states, with the number of banned species anticipated to rise. Enormous efforts are being made globally to develop PFAS mitigation strategies. Despite these efforts, fundamental insight about PFAS is still needed and is vital towards understanding the extent of the impact of PFAS. In this work, a multi-faceted computational chemistry strategy is being utilized to address several key molecular-level concerns about PFAS. In this talk, an overview of some of the PFAS challenges and strategies that we are addressing will be provided.