

ACS-GHS May Seminar Dr. Angela K. Wilson



Tuesday, May 3th
6:30 - 8:00 pm
via Zoom

Register to receive the meeting link at <https://acsghs.wildapricot.org/event-4766110>

A Computational Chemistry Journey: A Look Across the Periodic Table

Research: Over the past sixty years, there have been incredible feats of science – putting a person on the moon, eradicating smallpox, unraveling the structure of DNA, decoding the human genome, and discovering elements of the periodic table up to 118, to name only several. During this time – and, even, before this time, there have been ongoing efforts to solve the mathematical complexities of quantum chemistry. In fact, it has been approximately 95 years since Erwin Schrödinger laid the mathematical basis of quantum chemistry. During this time, an incredible number of computational chemistry methods have evolved, contributing to the ever-expanding arsenal of acronyms, making the field, in many ways, increasingly cryptic. Even a seemingly simple property – an energy, whether a binding energy, reaction energy, electron affinity, or ionization energy – can be challenging to “get right”. What is right? And, why is it challenging? Why is there not just one method? These are among the questions that will be addressed during our discussion, highlighting our prior and recent research.

Professional Journey: While many career journeys are smooth, planned, and well-orchestrated, for some of us, the pathways and trajectories are convoluted, with external forces (i.e., family) at play, often restricting us to geographic locations or providing other limitations. From a solid educational foundation, we may move in unanticipated directions, based upon our actual or chosen parameters. Here, I share a story about how starting as a post-postdoctoral position as an adjunct instructor making \$3,000 a semester could result in becoming the Division Director (head) of the National Science Foundation (NSF), responsible for nearly \$1B in research investments and NSF priorities in chemistry across the nation, and the President of the American Chemical Society, the world’s largest scientific society, with ~155,000 members, and why the network provided by the American Chemical Society, particularly in the local section, is so critical.