

## SEMINAR

Indiana CTSI Access Technology Program presents:

# “The Power and Promise of Functional Proteomics for Understanding Cell Biology and Disease”

**Speaker:** Uma K. Aryal, PhD, Research Assistant Professor  
Department of Comparative Pathobiology, Purdue University  
Director, Purdue Proteomics Facility

Friday, October 22, 2021  
12:00 pm – 1:00 pm

---

Please register to receive the ZOOM meeting link:

[https://iu.zoom.us/meeting/register/tZllcumrpzlrH9TuQwBDEEQYx3vZxww\\_0Z9c](https://iu.zoom.us/meeting/register/tZllcumrpzlrH9TuQwBDEEQYx3vZxww_0Z9c)

**Description:** Mass spectrometry (MS)-based proteomics is routinely applied to address a large range of biological questions, mainly because of its unparalleled ability to acquire high-content quantitative information about biological samples of enormous complexity. The core MS technologies, including the instrumentation and the methods for data acquisition and analysis, have significantly advanced, and will continue to advance in the quest for further improvement in sensitivity, throughput and proteome coverage. In this presentation, I will highlight various proteomics approaches that are currently applied at the Purdue Proteomics Facility, and their impact on understanding cell biology and diseases. Citing specific examples, I will discuss how functional proteomics has been used to learn about the molecular mechanisms of complex biological processes; how to design a successful proteomic experiment tailored to a specific project or biological question; and what additional methods can be integrated to make important biological discoveries. Finally, I will discuss how these lessons or new discoveries might guide future applications.

### Disclosure Summary

The Access Technology Program provides investigators access and guidance in using novel technologies and Core Services. Services and views presented belong solely to the vendor; they do not necessarily reflect the views of the Indiana CTSI, Indiana University, Purdue University or University of Notre Dame.