

# SUTER SCIENCE SEMINARS 2024-25

- **EMU Faculty Sabbatical Spotlight**

## **Using Applied Genomics to Better Understand Innate Immunity in *Caenorhabditis elegans***

**Kristopher Schmidt, PhD**

*Associate Professor of Biology  
Eastern Mennonite University  
Harrisonburg VA*



**Tuesday, March 18, 2025**

**12:10 p.m. • West Dining Room • bring your own lunch**

*Mounting an effective innate immune response to invading pathogens is vital for the survival of metazoans. The roundworm *Caenorhabditis elegans* has emerged as a valuable model for studying host-pathogen interactions, yet much remains to be discovered about the complex mechanisms of infection and the full spectrum of host genes and proteins involved in disease resistance. Our lab has focused on leveraging quantitative genomics to gain deeper insights into innate immunity. In this seminar, I will present a case study showcasing how we have used genomic approaches to unravel the role of the cytoskeletal regulator *unc-53/Nav2* in immunity.*

Dr. Kristopher Schmidt completed his academic training in Canada, earning a B.Sc. from Trinity Western University, an M.Sc. from the University of British Columbia, and a Ph.D. from Simon Fraser University. He is currently an Associate Professor of Biology and the Director of the Biomedicine program at EMU, where he teaches both undergraduate and graduate courses. His research focuses on unraveling the signaling pathways that regulate innate immunity. Outside the lab and classroom, Dr. Schmidt enjoys exploring the hiking and mountain biking trails of the Shenandoah Valley with his family, or planning their next adventure to Peru.



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