

SUTER SCIENCE SEMINARS 2025-26

From Plant Genes to Retinal Neurons: A Genomic Journey in Research and Teaching

Ray Enke, PhD

*Professor of Biology
James Madison University
Harrisonburg VA*



Friday, October 3, 2025

10:15 a.m. • Suter Science Center room 106

Join Dr. Ray Enke for a behind-the-scenes look at his winding (and methylated) path through the world of epigenetics—from studying gene silencing in plants to unraveling how chemical modifications like DNA methylation regulate transcription in developing retinal neurons. Now a Professor of Biology at James Madison University, Dr. Enke leads a student-powered research program and collaborates with high schools and colleges across the US to bring hands-on DNA sequencing and bioinformatics into the classroom. Whether you're curious about careers in science, passionate about genomics education, or intrigued by how your eyes develop, this seminar will offer insights, inspiration, and maybe even a few musical notes.

Dr. Ray Enke received his B.S. in Biology from Salisbury University, where he first discovered the transformative power of undergraduate research. He earned his Ph.D. in Biochemistry and Molecular Biology through a joint program between the Johns Hopkins Bloomberg School of Public Health and Brown University, studying epigenetic gene silencing in the model plant *Arabidopsis*. As a postdoctoral fellow at the Johns Hopkins School of Medicine, he shifted his focus to the role of epigenetic regulation in human health and disease, working in the Department of Ophthalmology. Now a Professor of Biology at James Madison University, Dr. Enke leads a student-driven research program that investigates how epigenetic modifiers such as DNA methylation influence the development and pathology of the retina. He integrates his research into undergraduate and graduate courses including Genetics, Advanced Molecular Biology, and Genomics. Outside the lab and classroom, Dr. Enke enjoys hiking, backpacking, and playing music in several pop and rock bands.



Suter Science Center
1194 Park Rd.
Harrisonburg VA 22802
540-432-4400