Title: “Wild Brains, New Insights: Expanding Psychology Course Content with Diverse Animal Models”
Speaker: Kelly Lambert, University of Richmond

Abstract
In this talk, I will review the historical rise of the laboratory rat and mouse as psychology’s primary models before considering the value of broadening our research portfolios. Rodents represent only a sliver of mammalian diversity—ranging from shrews to elephants—not to mention other vertebrate and invertebrate species that have evolved remarkable adaptive strategies. Expanding the range of research models and habitats can deepen classroom discussions and generate new insights into mental health. For example, our research indicates that wild rats exhibit significantly higher stress hormone levels than laboratory rats exposed to similar conditions, yet without cognitive or neural decline—pointing to unique resilience mechanisms. Likewise, raccoon brains exhibit neuronal scaling patterns similar to primates, offering a window into sophisticated cognitive strategies such as curiosity and problem-solving. This approach has historical precedent: field studies of prairie voles’ natural social bonds sparked influential research on oxytocin’s role in human relationships. While traditional laboratory models remain valuable, translational research—and psychology education—are enriched when we explore more of nature’s adaptive solutions across the broader neuroverse.

Bio
Dr. Kelly Lambert is the Trawick Professor of Behavioral Neuroscience at the University of Richmond, where she investigates experience-based neuroplasticity and teaches multiple neuroscience courses. She has approximately 85 scholarly publications and has written two neuroscience textbooks and three mainstream books including Lifting Depression, The Lab Rat Chronicles, and Well-Grounded. She is currently writing Wild Brains: Translating Adaptive Mental Health Strategies from the Bush to the Bedside. Lambert was awarded the 2008 Virginia Professor of the Year award, the 2018 Career Achievement Award given by the International Behavioral Neuroscience Society, and the 2024 Science Educator Award (by the Society for Neuroscience). During the 2024-25 academic year, she visited campuses across the USA as a Phi Beta Kappa Visiting Scholar. Her research targeting connections between physical effort and emotional resilience has been featured on CBS Sunday Morning and her rat-driving research has been featured in over 1500 news stories across the world, including the Netflix series The Hidden Lives of Pets and the Canadian Broadcasting Corporation’s Rat City. In 2019, Lambert described her behaviorceuticals research perspective in a TEDx Bermuda talk.