Dr. Daniel Swale is an Associate Professor in the Emerging Pathogens Institute and Department of Entomology and Nematology at the University of Florida. Dr. Swale received his B.S. in Biology and Chemistry from Christopher Newport University (2008), his M.S. in Life Sciences from Virginia Tech (2009), and his Ph.D. in insect neurotoxicology from the University of Florida (2012). He then completed a postdoctoral fellowship in the Department of Anesthesiology at Vanderbilt Medical School focusing on the development of pharmacology for potassium ion channels involved in various human diseases.

At EPI, his current research lies at the interface of physiology, toxicology, and molecular genetics to provide knowledge on the modes of action, discovery and development, and resistance of various drug and insecticide chemistries. The lab studies the fundamental and applied aspects of physiology and toxicology by integrating toxicological, pharmacological, electrophysiological, and genomic approaches to address broad ranging hypotheses in model insects, arthropod vectors of human diseases, and agriculture pests. Specifically, the Swale Lab studies the physiotoxicology of ion channels and ion transporters that are understudied as a means to bridge the fundamental knowledge gap that limits our understanding of insect systems.

In addition to fundamental physiotoxicology, a branch of the Swale Research Lab focuses on pathogen-vector interactions that alter physiological pathways to enhance pathogenesis of pathogens, alter arthropod behavior, or alter vector competency.