

MICROBIOLOGY 250 SEMINAR SERIES

MCBL GSA INVITED SPEAKER 2026

Tuesday, April 28, 2026
2:00 p.m. – 2:50 p.m.



Daniel Sprockett, Assistant Professor, Department of Microbiology and Immunology, Wake Forest University School of Medicine

Seminar Title: "A Shared Microbial Heritage: Tracing the Assembly, Transmission, and Evolution of Mammalian Gut Microbiomes"

Biography: Dr. Daniel Sprockett is a microbial ecologist and evolutionary biologist who studies the assembly, evolution, and function of the gut microbiota across host lifespans. He earned his Master's degree in Ecology and Evolutionary Biology under Chris Blackwood and Helen Piontkivska, and went on to earn his PhD in Microbiology and Immunology from Stanford University School of Medicine in 2019, where he worked with Dr. David Relman to investigate patterns and processes of community assembly in the human microbiome, including pioneering work on gut microbiota maturation in indigenous Tsimane communities of the Bolivian Amazon. He completed postdoctoral training at Boston Children's Hospital and Harvard Medical School with Dr. Seth Rakoff-Nahoum, followed by a postdoctoral fellowship at Cornell University with Dr. Andrew Moeller, where he also served as a Distinguished Scholar at the Cornell Center for Vertebrate Genomics and a Fellow at the Cornell Institute of Host-Microbe Interactions and Disease. During his time at Cornell, he uncovered widespread ancient rodent-bacterial symbioses and provided the first experimental demonstration that gut microbiota are locally adapted to their hosts. In 2025, Dr. Sprockett joined the faculty at Wake Forest University School of Medicine as an Assistant Professor in the Department of Microbiology and Immunology.

Dr. Sprockett's research program integrates ecological and evolutionary theory with cutting-edge metagenomic and experimental approaches to understand how gut microbial communities assemble in early life, transmit between individuals, and adapt to new host environments. His lab investigates fundamental questions about microbial transmission between family members and between host species, the genomic adaptation of bacteria to diverse gut environments, and the developmental consequences of microbiota assembly for host health. By combining high-throughput genomic and metagenomic approaches across a diverse range of experimental and natural systems, including conventionally-raised, germ-free, and rewilded mouse models; nonhuman primate models; and clinical and cohort-based studies in humans, his work aims to uncover the mechanisms controlling microbiota succession and identify strategies for steering microbial communities toward health-promoting states.

In Person: Genomics Auditorium 1102A

Seminar Host: Dr. Ansel Hsiao & Dr. Emma Aronson