MICROBIOLOGY & IMMUNOLOGY SEMINAR

Dr. Luisa Hiller
Associate Professor
Department of Biological Sciences
Carnegie Mellon University

“Bacterial Guide to Stress Management”

Monday, November 8, 2021
3:30 P.M., Microsoft Teams

All UMMC faculty, staff and students are invited.
Research Summary:
Luisa Hiller is an Associate Professor at Carnegie Mellon University in the Department of Biological Sciences. The Hiller lab examines microbial molecular mechanisms associated with disease. They study *Streptococcus pneumoniae* (Spn), a major human pathogen that causes over a million annual deaths in young children and the elderly, worldwide. In its commensal form, this bacterium asymptptomatically colonizes the human nasopharynx; in its pathogenic form, it disseminates to other tissues and causes mild or severe disease. Understanding how microbes switch from commensal coexistence to pathogenesis is fundamental to microbial ecology and disease etiology. The molecular basis of this switch is at the core of Dr. Hiller’s research program. To address this overarching question the lab focuses on three interconnected areas: cell-cell communication, adaptation to host-environments, and genomic variability and lineage-specific adaptations.