



FASEB

Federation of American Societies
for Experimental Biology

Science
Research
Conferences

The Microbial Pathogenesis Conference

Organizer Bio: Kim Orth, PhD

Investigator, HHMI and Professor, Molecular Biology and Biochemistry, University of Texas Southwestern Medical Center, Dallas, USA

Kim Orth's laboratory elucidates mechanisms used by virulence factors expressed by bacterial pathogens using microbial genetics, biochemistry, biophysics, cell biology and bioinformatics. They uncover mechanisms that bacteria use to subvert host signaling pathways, including two novel post translational modifications: YopJ Ser/Thr Acetylation and VopS AMPylation. Additionally, they foster new and creative ideas using rigorous methodology to test hypothesis driven by basic science research. Students and postdocs from Orth's lab leave with the skills they will need for success in academic, government, and industry positions.

Orth earned a BS in biochemistry (Texas A&M University), a MS in biochemistry (University of California, Los Angeles), and a PhD in biological chemistry (University of Texas Southwestern Medical Center). Over the course of seven years, she completed multiple postdocs at the University of Michigan while becoming a working mother of two children. Orth discovered the field of host-pathogen interactions during her final postdoc and, after two years of working in this field, became an assistant professor at the University of Texas Southwestern Medical Center. Dr. Orth started her own lab on host-pathogen interactions in 2001.

Orth has contributed to many various programs for "Woman in Science," including panel discussions at the American Society for Biochemistry and Molecular Biology's annual meeting (2017, 2018), the Gordon Research Conference on Microbial Toxins and Pathogenesis (2018), and FASEB's Science Research Conference on Microbial Pathogenesis (2015, 2017, 2019 (co-chair) and Chair of the 2021 Microbial Pathogenesis Conference. She wrote a solicited, personal reflection on her career path for the *Journal of Biological Chemistry*, to accompany her ASBMB Merck Award (2018), to provide tools for younger scientists. She was also honored with an election to the National Academy of Science in 2020.