NY ACS Metro Women Chemists' Committee

Please join us for a seminar sponsored by the NY ACS Metro Women Chemists' Committee, given by **Dr. Jessica C. Seeliger,** (Associate Professor, Pharmacological Sciences, Stony Brook University).

Title: **Opening Up the Envelope: Reading Out Mysterious Membrane Machinery in the Human Pathogen *Mycobacterium tuberculosis***

Location: Pace University
One Pace Plaza
New York, NY 10038
Date: April 29th, 2020
Day/Time: Wednesday, 12:15 pm – 1:15 pm

For further information, please contact Dr. Rita K. Upmacis (rupmacis@pace.edu), Chair of the Metro Women Chemists' Committee.

Abstract
Tuberculosis (TB) is the deadliest infectious disease worldwide: 1.5 million people died of TB in 2018. *Mycobacterium tuberculosis* is the causative bacterium and humans are the only reservoir for this wily predator, which has co-evolved with humans for millennia. An important aspect of the *M. tuberculosis* arsenal is its unusual cell envelope, particularly the outermost layer or mycomembrane, which contains critical biomolecules—such as lipids and proteins—that enable bacterial survival and mediate virulence in the human host. However, the cell envelope remains a poorly understood compartment in mycobacteria, partly due to current experimental limitations. The Seeliger Lab develops biochemical methods to meet the unique demands of *M. tuberculosis* and uses them to explore the content and functions of the cell envelope, towards better understanding—and combatting—this human pathogen.

Biography
Jessica Seeliger has often been told that she is from California, although in truth she was born in northeastern Ohio (go Cavaliers!) and grew up in the college town of Oberlin. For reasons that even she doesn't quite understand, she loved chemistry from first encounter in eighth grade and went on to acquire 3 degrees in chemistry and work in 5 different chemistry labs on everything from carbon nanotubes to protein folding to transient absorption spectroscopy and finally to lipid synthesis in mycobacteria. This crazy ride through science is now enriched by the influence of her two toddlers and her research group of enthusiastically omnivorous scientists, who remind her every day why she loves being a professor.