For the last eleven years, my laboratory has been studying metal-binding host defense peptides. We now believe we are at the point of using this interesting chemistry to design agents with potential use in the clinic. My presentation will include the inorganic chemistry lessons we have learned from these wonderful systems. I will also show results on a synthetic peptide that utilizes the pool of phagosomal Cu ions in the host-Mtb interface to augment the mycobactericidal activity of macrophages while simultaneously exploiting the susceptibility of Mtb to ROS. This peptide serves as a model with which to develop next-generation, multi-functional antibiotics based on the chemistry of antimicrobial peptides.

For more information see: https://clas.ucdenver.edu/chemistry/seminars-and-events