Infection medicine currently faces two major and growing crises that impact the ability of MDs to treat bacterial infections with our current arsenal of antibiotics. The first is widely recognized – the evolution of antibiotic resistance. The second receives less attention – chronic polymicrobial infections where appropriate antibiotics often fail to resolve infections. I will discuss novel patient-specific control strategies that have the potential to effectively treat patients now and into the future. These strategies are grounded in multi-scale modeling and experimentation, from within-host dynamics of multi-species infection microbiomes through to the epidemiological and evolutionary dynamics of competing pathogen strains.

If you would like to visit with Dr. Samuel Brown, please contact Aakash Pandey at apandey@ksu.edu.

Coffee & cookies served preceding the seminar in Ackert Hall, Room 225