CSI MICROBIOME: BIG CLUES FROM TINY WITNESSES

SPEAKER: Jessica Metcalf, Colorado State University

DATE: Wednesday, October 31st, 2018

TIME: 3:00-4:00 pm

LOCATION: ENR2, Room S107

ABSTRACT: Estimating the postmortem interval (PMI) of human remains is important in criminal investigations. Microbes play an important role in the process of decomposition and can provide clues about the time elapsed since death. My lab has demonstrated that host-associated and environmental microbial communities undergo succession in a predictable, clock-like manner during mammalian decomposition. We use high throughput DNA sequencing to inexpensively and rapidly track these microbial community shifts, and machine learning techniques to develop predictive models. By working with several forensic anthropological research facilities, we are currently investigating whether the microbial clock of death ticks at the same rate in different geographic regions and in different seasons.