

Presenter: Abigail Lenz, alenz@liberty.edu

Faculty mentor: Andrew Fabich, ajfabich@liberty.edu

Department: Biology and Chemistry

Research area: Microbiology (genomic focus)

Genomic Analysis of Pathogenic Intestinal Bacterium

Enterohemorrhagic *Escherichia coli* (EHEC) is a gram negative bacterium which causes mortality via hemolytic uremic syndrome. The virulence EHEC causes in humans is modeled in mice with *Citrobacter rodentium* (CR), which is a normal murine pathogen causing transmissible murine colonic hyperplasia but is not pathogenic to humans. The two most widely used strains of CR are ICC168 and DBS100, but only ICC168 has been previously sequenced. Therefore, genetic differences between these widely used strains have yet to be determined. We provide the full genome of CR DBS100, the first genome to be sequenced at Liberty University.