ABIGALE RIGGLE AND STUART CANTLAY, Department of Biological Sciences, West Liberty University, West Liberty, WV, 26074. Localization of the divisome protein FtsL in *Francisella tularensis* LVS.

Francisella tularensis is a gram-negative bacterium categorized as a tier 1 select agent. Fatal disease can be caused by very low doses, leading to the potential of *F. tularensis* being used as a bioterror agent. Understanding cell division in *F. tularensis* could yield important insights for the development of a vaccine or antimicrobial treatments. Understanding how *F. tularensis* divides may also shed light on how the bacterium is able to enter a Viable-but-not-Culturable (VBNC) state. This VBNC state could be a contributing factor to survival in the environment and during phagocytosis into host cells. Known divisome proteins of *Escherichia coli* include FtsZ, FtsA, and ZipA, which are involved in the assembly of the cytokinetic proto-ring. Divisome proteins, such as the FtsQLBWI complex and FtsN are recruited to the proto-ring, directing the formation of the division septum. Currently, very little is known about the *F. tularensis* divisome. Ftl_1540 is predicted to encode the FtsL homolog in *F. tularensis* Live Vaccine Strain (LVS). To learn more about the function of FtsL, we have generated the fluorescence fusion protein, FtsL-EMGFP. Cloning Ftl_1540 into two EMGFP reporter plasmids, pSC18, containing a strong promoter, and pSC13, containing no promoter, has resulted in the two recombinant plasmids pAR2 and pAR1, respectively. Our investigation of FtsL-EMGFP production and localization in bacterial cells expressed from recombinant plasmid pAR2 is presented here. (This work was supported by NIH Grant P20GM103434 to the West Virginia IDeA Network for Biomedical Research Excellence).