

Wednesday, January 15th, 2014

LSC 3 - Life Sciences Centre

2350 Health Sciences Mall

12-1pm



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It's OK to be different: New avenues of pathogenesis and survival in the foodborne bacterium *Campylobacter jejuni*

Campylobacter jejuni is the leading cause of bacterial gastroenteritis in the developed world. Lacking traditional virulence factors, screens, selections, and global stress response studies have revealed that fundamental properties are essential to the pathogenesis and success of this organism. Two of these properties will be discussed. The first is bacterial morphology, our identification of novel enzymes required for *C. jejuni* to maintain its characteristic corkscrew shape, and how maintenance of this shape affects pathogenic properties. The second is the response of *C. jejuni* to hyperosmotic stress; most significantly, the identification of considerable population heterogeneity within wild-type populations, and how the underlying unique genetic hypervariability may help this fastidious pathogen succeed in numerous environments in vivo and in the environment.

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