



**2019-006: Genomic epidemiology and rapid detection of  
Mycobacterium paratuberculosis infections (Johne's disease) in**

**Researcher: Andrew Cameron**

**Funding: \$50,000**

**Johne's disease reduces the ability for an animal's intestines to absorb nutrients, causing weight loss, diarrhea, and eventually death. There are no vaccines available or effective drugs to treat animals with this Johne's, though there are international trade risks associated with this disease. The current tests available for Johne's disease provide false positives, and are not able to detect it until the onset of the disease's symptoms. Detecting the specific pathogen is also a challenge. This study will find the DNA of various Johne's disease strains, and then develop a rapid, accurate, and cost effective diagnostic tool.**