



## Vaccine Candidates Against Johne's Disease

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**WARF: P05446US**

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**The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing potential vaccine candidates for Johne's disease.**

### Overview

Johne's disease is a contagious, chronic and usually fatal wasting disease that primarily affects the small intestine of ruminants. It is a worldwide problem with no known treatment and infects 25 to 50 percent of dairy cattle in the United States. Although a vaccine for Johne's disease exists, it does not protect against severe infection or transmission of the disease.

### The Invention

A UW-Madison researcher has developed potential vaccine candidates for Johne's disease. The disease is caused by the slow-growing bacterium *Mycobacterium avium* subspecies *paratuberculosis*, or *M. paratuberculosis*. The inventor identified several *Mycobacterium* strain-specific genes that may contribute to the pathogenicity of *M. paratuberculosis*. These genes could be used to design vaccines against pathogenic subspecies of *M. avium*, including *M. paratuberculosis*. In a recent study, vaccine preparations based on these sequences helped protect rodents against infection with *M. paratuberculosis*.

### Applications

- Prevention and treatment of Johne's disease

### Key Benefits

- May enable the development of improved vaccines for Johne's disease
- May lead to methods for preventing and treating Johne's disease in ruminants and Crohn's disease in humans, which may be linked to Johne's disease

### Additional Information

#### For More Information About the Inventors

- [Adel Talaat](#)

#### Related Intellectual Property

- [View Continuation Patent in PDF format.](#)
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