Field Test for Mycobacterial Infections

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WARF: P150020US02

Inventors: Adel Talaat

The Wisconsin Alumni Research Foundation is seeking commercial partners interested in developing a method for the early diagnosis and differentiation of mycobacterial infections in livestock.

Overview

Mycobacterial infections cause major health problems for people and animals, including human tuberculosis, bovine tuberculosis and Johne's disease. Johne's disease (or paratuberculosis) afflicts 91 percent of dairy herds in the U.S. and costs the industry an estimated $500 million every year. Bovine tuberculosis, which is caused by a different subspecies of the bacteria, is endemic in dairy herds and a threat to wildlife in many developed countries including the U.S., U.K. and Australia.

Current diagnostic tests miss the early stages of infection and cannot differentiate infected from vaccinated animals (the DIVA principle). Early and reliable detection is imperative to control the infection in herds.

The Invention

A UW–Madison researcher has identified a set of biomarkers that can indicate whether a mammal is vaccinated or infected, as well as the type of infection (bovine tuberculosis or Johne's disease).

Applications

- Diagnostic methods that can identify and distinguish between animals that have been infected and those that have been vaccinated, as well as clarify the nature of the infection
- Kits for farmers/veterinarians

Key Benefits

- Early stage detection
- Could be used in the field (point-of-care assay)
- Distinguishes between vaccination and infection
- Identifies type of infection (bovine tuberculosis or Johne's disease)
- Could encourage the adoption of new vaccines

Stage of Development

The researcher has established a set of markers that can be used for the early diagnosis of Johne's disease in ruminants (e.g., cattle,

The development of this technology was supported by the WARF Accelerator Program. The Accelerator Program selects WARF's most

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commercially promising technologies and provides expert assistance and funding to enable achievement of commercially significant milestones. WARF believes that these technologies are especially attractive opportunities for licensing.

Additional Information

For More Information About the Inventors

- Adel Talaat

Related Technologies

- See WARF reference number P130200US02 for information about a vaccine candidate against Johne's disease.

Tech Fields

- Diagnostics & Biomarkers : Diagnostics

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842

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