Extended release topical ointment for Tritrichomonas foetus in bulls

Auburn University is seeking a licensee or development partner for a topical treatment for Tritrichomonas foetus.

**Overview:** Auburn University is seeking a licensee or development partner for an extended release topical ointment for treating *Tritrichomonas foetus* (*T. foetus*) infection in bulls. Although a vaccine for female cattle exists, there is not a vaccine or FDA-approved treatment for bulls.

**Advantages:**
- **COST SAVING** - Provides an alternative to culling infected prize bulls and reduces occurrence of *T. foetus*-induced abortions
- **PREVENTATIVE** - Regular application with proper herd management could prevent or eliminate *T. foetus* in bulls, prevent spread to cows, and eliminate *T. foetus* in the herd.
- **EASILY APPLIED** - Topical application is simple and quick

**Description:** The prevalence of *T. foetus* at the herd level is anywhere from 10-40% with larger herds being most affected. Infection in females can lead to embryonic death and abortion, a significant financial loss to the farmer. The total economic impact of *T. foetus* is not well known, but assuming a 5% loss of calves due to *T. foetus* infection it is estimated that losses over $1B are seen annually in the US. A vaccine exists for females but there is no FDA-approved treatment available for bulls. Because infected bulls can spread *T. foetus* throughout a herd, they are usually slaughtered - a significant loss to the farmer of up to $100,000 or more for prized bulls. This gel-based formulation would allow topical treatment of bulls and avoid culling of infected animals. Efficacy *in vitro* and *in vivo* using benzimidazoles and ponazuril antimicrobials has been demonstrated, with elimination of detectable infection in a live bull. Further studies in live bulls are ongoing to optimize a final formulation and administration protocol.

**Status:**
- Subject of US Patent application (20180326072)
- Formulation has been demonstrated to eliminate detectable infection in a live bull with two applications; further studies in bulls are ongoing
- This technology is available for exclusive or non-exclusive licensing