Natural Feed Additive Combats Gastrointestinal Infection in Livestock and Poultry

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method of maintaining growth in protozoan-infected animals by administering interleukin-10 peptides and antibodies.

OVERVIEW

Reaping billion dollar losses every year, coccidiosis is a common protozoan infection of agricultural animals that targets the digestive system. Its symptoms include weight loss, diarrhea and suppressed growth.

Drugs have been developed to treat the disease, but are being phased out in markets in Europe and Asia due to potential hazards to both animals and humans. The emergence of resistant strains also has spurred interest in fresh tactics. Vaccines are one alternative, but they take several weeks to become effective and may undermine animal growth. A need exists for a safe solution acceptable worldwide.

THE INVENTION

UW–Madison researchers have developed a method for treating and maintaining healthy growth in animals infected with gastrointestinal protozoa using interleukin-10 (IL-10) peptides and antibodies.

Incorporating standard techniques, blood serum or eggs produced from hens vaccinated with IL-10 peptide vaccines can be obtained and dried to form an antibody-containing powder. The egg, yolk or serum powder may be added to animal feed in an appropriate amount to transfer the antibodies.
BUSINESS OPPORTUNITY

- The estimated cost of producing the antibody is a fraction of the protozoan vaccine cost.
- The antibody approach has promise in developing countries where obtaining, transporting and storing vaccines is difficult.
- The technology could serve as an alternative for drugs used to control protozoan infection such as cocciostats.

APPLICATIONS

- Producing agricultural feed
- Raising poultry, cow, pig, sheep, fish and other livestock

KEY BENEFITS

- Alleviates growth and weight depression caused by coccidiosis
- None of the drawbacks of drugs/vaccines
- Method has potential to prevent or treat all gastrointestinal protozoan infections.
- Satisfies consumer preferences

STAGE OF DEVELOPMENT

The development of this technology was supported by WARF Accelerator. WARF Accelerator selects WARF’s most 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

Related Portfolios
WARF Accelerator Program Technologies

Tech Fields
Agriculture - Animal nutrition
Agriculture - Animal health

CONTACT INFORMATION

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