News story: APHA awarded funding for brucellosis vaccine development

APHA has received $100,000 in the AgResults' Brucellosis Vaccine Prize competition, aimed at incentivising the development of a vaccine that is effective, safe and viable for use against Brucella melitensis in small ruminants across the developing world.

The award is for Phase 1 of the vaccine development and was given based on the agency's scientific soundness, suitable research and appropriate manufacturing capabilities.

The team, led by Dr John McGiven, is now working on Phase 2, by developing a proof of concept vaccine that meets efficacy and safety requirements.

The Brucellosis Vaccine Prize competition is designed, funded and managed by AgResults, and implemented by the Global Alliance for Livestock Veterinary Medicines (GALVmed). The competition has three phases and could run for up to 10 years.

A total of $30 million is available to entrants, with 3 milestone payments at different stages, potentially adding up to the total of $26 million for one entrant. See the the competition's website.

Brucellosis is a costly disease that affects many animals including ruminants (for example cattle, sheep, goats and buffalo) and causes abortions, infertility and decreased milk production.

It is endemic in a number of developing countries, and the toll on smallholder farmers in South Asia and Sub-Saharan Africa is particularly devastating.

Wholesale vaccination of livestock can be a cost-effective way of controlling the disease and limiting its impact on both human and animal health.

However, the existing brucellosis vaccines are not safe or efficacious enough to use effectively in developing countries. Current vaccines are unsafe for use in pregnant animals, have variable efficacy, and can harm humans.

The most protective vaccines also cause cross reactions in diagnostic tests for the disease. A new vaccine that addresses these shortcomings would deliver lasting benefits to human and animal health.

Dr John Mc Given, R&D Project Leader at the OIE Reference Laboratory for Brucellosis at APHA said:

> We feel the AgResults competition elevates recognition of the significance of this insidious and debilitating disease. For many years we have been focusing on improved methods for the

> serodiagnosis of brucellosis and this research revealed to us a route towards a new type of vaccine against brucellosis. This competition gave us additional incentive to pull these innovative concepts together in the belief that we can make a big difference to brucellosis control.

Andrew Soldan, Head of APHA Scientific (the commercial services of APHA) said:

> I think the prize competition is a fantastic idea; in the discussions I've already had with vaccine companies it has created a level of interest which I think is a testament to the fact that it's already started to have an effect. It's certainly raised the level of interest within the industry, both the research community and the vaccine companies.

To find out more about the award, listen to Andrew Soldan's interview on the competition's website.