Vaccine protects from deadly Hendra virus

May 17 2011

CSIRO's high bio-containment facility at the Australian Animal Health Laboratory was necessary to safely asses the vaccine's effectiveness. Image credit - CSIRO

(Medical Xpress) -- CSIRO scientists have shown that a new experimental vaccine helps to protect horses against the deadly Hendra virus.

Dr Deborah Middleton from CSIRO's Australian Animal Health Laboratory (AAHL) will announce the successful progress to develop the vaccine at the Australian Veterinary Association conference in Adelaide today.

"Our trials so far have shown that the vaccine prevents the infection of horses with Hendra virus," Dr Middleton said.

Stopping the disease in horses could also help protect people from the disease.

“A horse vaccine is crucial to breaking the cycle of Hendra virus transmission from flying foxes to horses and then to people, as it prevents both the horse developing the disease and passing it on,” Dr Middleton said.

Hendra virus first appeared in 1994 and five of the 14 known outbreaks have spread to people. The virus has killed four of the seven people infected.

Depending on further development, field trials and registration the vaccine may be available as early as 2012.

Dr Barry Smyth, President of the Australian Veterinary Association, said that the news on the vaccine will be welcomed by both vets and horse owners.

“It’s important that veterinarians and horse owners continue with precautions that reduce the risk of spreading the virus and that they report suspected cases immediately,” Dr Smyth said.

Recent work on evaluating the vaccine was jointly funded by the CSIRO, the Australian Government Department of Agriculture, Fisheries and Forestry and the Queensland Government Department of Employment, Economic Development and Innovation.

The development of the vaccine goes back more than ten years to shortly after CSIRO scientists first isolated the virus following the first outbreak of the disease in Hendra, Queensland.

Development and source of the vaccine is the result of a close

collaboration with Dr Christopher Broder of the Uniformed Services University of the Health Sciences (the US federal health sciences university) supported by the US National Institutes of Health, but the high bio-containment facility at AAHL was essential for evaluating its beneficial effects.

“Our bio-security facility at AAHL is the only laboratory in the world where this work could have been done. It has been slow, painstaking and high-risk work and the credit is due to many people who’ve worked on this since 1994,” Dr Middleton said.

Provided by CSIRO