



Protecting Australia from emerging infectious diseases

Our unique biosecurity infrastructure and expertise works to minimise the impact of costly infectious disease outbreaks.

The challenge

Infectious diseases previously unknown in humans have been increasing steadily over the last three decades. More than 70 per cent of these emerging diseases are zoonotic in nature – passing from animals to people, for example influenzas from poultry or pigs, Ebola, sudden acute and Middle East respiratory syndromes (SARS, MERS), and Nipah and Hendra viruses.

Reducing infectious disease threats in Australia protects our community and farming industries.

Despite Australia's strict quarantine procedures, a zoonotic disease outbreak is a constant risk to economy, environment and community. The potential impacts of a disease outbreak include illness in humans, domestic animals and wildlife. Diseases have the potential to devastate our multi-billion dollar livestock and aquatic industries

due to a ban on our license to trade. There are also significant economic costs involved in the mitigation of and recovery from a disease.

The response

CSIRO's Australian Animal Health Laboratory (AAHL) is one of the most sophisticated laboratories in the world for the safe handling, containment, diagnosis and research of animal and zoonotic diseases.

AAHL investigates, identifies, and characterises potential new exotic and emergency animal disease outbreaks and provides advice on disease mitigation and outbreak response. We actively contribute to Australia's ongoing preparedness around foot and mouth disease and avian influenza, while also conducting research into current viruses of concern such as Ebola.

AAHL scientists were instrumental in the development of the Hendra virus vaccine for horses and AAHL is recognised as a global expert in the diagnosis and characterisation of the closely related Nipah virus.

The engagement

AAHL collaborates with global human and animal health organisations, laboratories, research agencies, universities and industries including the the World Organization for Animal Health, World Health Organisation and the UN Food and Agriculture Organisation.

AAHL provides advice to Australian government and industry groups on biosecurity, and assists Asia Pacific countries deal with animal disease issues that challenge regional food security and biosecurity.

The impact

A recent economic assessment¹ of our work around foot and mouth disease estimates its insurance value to Australia at \$431 million per annum – many times the annual operating cost of AAHL – a significant return on investment.

Australia's robust disease surveillance and diagnostic program protects national markets and underpins confidence in our international livestock trade.

¹ ACIL Allen Consulting, 2014. *CSIRO's Impact and Value – An Independent Assessment.*

CONTACT US

t +61 3 5227 5000
e aahl-reception@csiro.au
w www.csiro.au/aahl

AT CSIRO WE SHAPE THE FUTURE

We do this by using science to solve real issues. Our research makes a difference to industry, people and the planet.

WE ASK, WE SEEK, WE SOLVE

FOR FURTHER INFORMATION

Kurt Zuelke
t +61 3 5227 5511
e kurt.zuelke@csiro.au
w www.csiro.au/impacts