

## APPENDIX 8 – ANIMAL HEALTH RESEARCH

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### *Australian Animal Health Laboratory*

Staff at AAHL have helped to detect and characterise a host of new viral diseases, including Nipah, Hendra, Menangle, Australian bat lyssavirus, and the newly discovered Beilong virus. AAHL staff are undertaking important research on avian influenza and were part of an international team that uncovered bats as the previously unknown host of the SARS virus.<sup>1</sup>

AAHL is recognised by the world animal health organisation, the Office Internationale des Epizooties (OIE), as a regional reference laboratory for:

- Newcastle disease
- avian influenza
- bluetongue
- epizotic haematopoietic
- necrosis virus.

AAHL is an OIE Collaborative Centre for New and Emerging Diseases, a WHO Collaborating Centre for Severe Acute Respiratory Syndrome (SARS) and a national reference laboratory for rabies and brucella.

The Australian Government awards between \$20-40 million in funding to Cooperative Research Centres (CRCs) over a seven year period. The role of CRCs is to develop collaboration between industry, Australian universities and public sector research agencies to develop innovative research concepts into useable products and processes. First established in 1990, 168 CRCs have been funded (including 58 current CRCs). In January 2008, the Minister for Innovation, Industry, Science and Research announced a review of the Cooperative Research Centres (CRC) Program as part of a broader review of the national innovation system.

Work undertaken by CRCs is important to Australia's biosecurity and quarantine continuum. CRCs are recognised as the home of industry focussed innovation and the breeding ground of Australia's innovators. They provide research and learning opportunities to develop highly skilled and industry ready postgraduates. Each year the CRC program supports some 2000 researchers and educates more than 1000 PhD students.

Recent CRC contributions to the quarantine-biosecurity research effort include:

- Research into the ecology of emerging diseases, particularly the role of wildlife in disease transmission, because infectious agents of wildlife represent an increasing proportion of emerging infectious diseases in humans and livestock species (Hendra virus, Nipah virus, Australian bat lyssavirus, and Japanese encephalitis). (Australian Biosecurity CRC, 2008, [www.abrc.org.au](http://www.abrc.org.au))

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<sup>1</sup> ibid

- Research into the occurrence and consequences of severe acute respiratory syndrome (SARS)-like coronaviruses in bats in Australia and the region (Australian Biosecurity CRC, 2005, [www.abcrc.org.au](http://www.abcrc.org.au))
- Research into patterns of emerging diseases in the Australasian region. The outcomes of this research may be used to make recommendations for better targeting resources for and designing systems of surveillance (Australian Biosecurity CRC, 2008, [www.abcrc.org.au](http://www.abcrc.org.au))
- Research into feral pig control. Feral pigs can carry about 20 different exotic diseases, including diseases that affect humans. The entry of exotic diseases, such as classical swine fever, Nipah virus or foot-and-mouth disease could destroy Australia's export industries and have a devastating effect on the national economy. (Invasive Animals CRC, [www.invasiveanimals.com](http://www.invasiveanimals.com))
- Development of PIGOUT® feral pig bait aimed at enhancing feral pig control, thereby providing a target-specific and humane means of baiting for pigs for routine control and in the event of an EAD. (Invasive Animals CRC, [www.invasiveanimals.com](http://www.invasiveanimals.com))
- The development of plant biosecurity teaching and learning resources for primary schools (CRC for National Plant Biosecurity, 2008, [www.crcplantbiosecurity.com.au](http://www.crcplantbiosecurity.com.au))
- Online resources for primary students for improved dairy genetics (CRC for Innovative Dairy Products, [www.dairyerc.com](http://www.dairyerc.com))
- Development of teaching and learning materials on invasive species for TAFE Diploma in Conservation and Land Management (Invasive Animals CRC, 2008, [www.invasiveanimals.com](http://www.invasiveanimals.com))
- Development of specialised undergraduate units in poultry related areas (CRC for the Australian Poultry Industries, [www.poultryerc.com.au](http://www.poultryerc.com.au))