



DECEMBER  
2007

SUMMER  
EDITION

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**FROM THE CEO***Dr Stephen Prowse, CEO***National Workshop**

The AB-CRC has just completed its 4th National Workshop. The objective of the workshop was to bring AB-CRC participants together for two days to share the outcomes of their research, to forge new connections and linkages and re-establish old ones. This newsletter contains numerous reports on the workshop activities.

With many of our early projects coming to completion it was exciting to hear what they have delivered and the impact they have had. It was especially pleasing to see the progress made by the PhD students.

**Annual Report**

The 2006/2007 Annual Report is now available on the AB-CRC website at [http://www1.abcrc.org.au/UPLOADS/PUBLICATIONS/PUBLICATION\\_279.pdf](http://www1.abcrc.org.au/UPLOADS/PUBLICATIONS/PUBLICATION_279.pdf)

The report outlines our activities and achievements over the last 12 months.

**Progress towards Biosecurity CRC Mark II**

Over the last few months we have made considerable progress in planning for a Biosecurity CRC Mark II. Between November 2007 and March 2008, the rebid team will be consulting with end-users and core and supporting partners in developing the preliminary business case, in particular the research program. This will involve visits to organisations, papers to key committees (such as the Communicable Diseases Network Australia (CDNA), the Public Health Laboratory Network (PHLN) and the Sub-committee on Animal Health Laboratory Standards (SCAHLs)) and small workshops in areas requiring development and coordination.

The National Steering Group, which has guided the rebid team to date, is to be disbanded and replaced with an Interim Steering Group (ISG) drawn from core partners. The ISG will be required to determine a governance structure for the Biosecurity CRC Mark II and finalise the preliminary business proposal. The ISG will approve a new title for the CRC and be responsible for appointing a new Board of Directors, Chair and other key appointments following funding approval anticipated in December 2008.

It is expected that organisations unsure of their investment level will determine this by early February. The ISG will be put together in February 2008 and meet in early March. Professor Mal Nairn, Chair of the current AB-CRC Board, has agreed to chair the ISG.

**AB-CRC WELL REPRESENTED AT WAVLD SYMPOSIUM**

*By Jo Edmondston, Senior Project Officer, Application & Linkage Program*

A large contingent of AB-CRC researchers and staff recently attended the 13th International World Association of Veterinary Laboratory Diagnosticians (WAVLD) Symposium in Melbourne.

Co-hosted by CSIRO's Australian Animal Health Laboratory (AAHL) and the Australian Association of Veterinary Laboratory Diagnosticians (AAVLD), the symposium attracted over 470 delegates from over 40 countries.

Running over four days from 11-14 November, the symposium was promoted as 'Preparing for the Animal Health Challenges of the Future'. It lived up to this promise, covering the current global risks and challenges associated with new and emerging animal diseases, and providing delegates with the latest knowledge on the world's most serious animal diseases including foot and mouth disease, avian influenza and SARS.

A highlight of the meeting was a special late afternoon session on the first day dedicated to equine influenza. In this session, experts from around the globe provided background information on the disease, followed by a number of talks by local equine influenza experts describing the current epidemic in Australia.



AB-CRC's booth at WAVLD

Over 20 exhibitors manned booths at the symposium, including a number of diagnostic companies, private companies, and government departments and agencies. The AB-CRC booth was manned by Jo Edmondston, Erin Rummer, and other AB-CRC researchers who kindly made themselves available to answer questions during break periods. The CRC booth was well positioned opposite Emma Wilkins and Nicole McClure in the CSIRO Livestock Industries booth and around the corner from the Department of Agriculture, Fisheries and Forestry booth.

For details of the scientific presentations given at WAVLD in Melbourne see [www.wavld2007.com](http://www.wavld2007.com). The next WAVLD Symposium is scheduled for Madrid in 2009. For more information visit [www.wavld2009.com](http://www.wavld2009.com).

### AB-CRC MEETS THE PRESS

*By Deb Cousins, Director Application and Linkage*

A 'Meet the Press' session was the prelude to the AB-CRC's Annual Workshop held in Melbourne from 14-16 November 2007.

Niall Byrne from 'Science in Public' introduced Gerard Scholten, Journalist, Network Ten News; Margot Foster, Executive Producer, ABC Bush Telegraph; and Peter Flaherty, Environment Editor of the Herald Sun and former editor of The Weekly Times, who were able to give AB-CRC researchers, students and end-users a good insight into the life of today's journalists working in television, radio and print media.

The journalists provided avid and enthusiastic responses to key questions put to them by Niall and were able to give a good picture of their everyday working life, the timeframes and deadlines they work under and the sorts of stories they were interested in.

The event also provided an opportunity for AB-CRC partners to interact directly with journalists. Feedback from researchers and end-users reinforced that this was a very useful exercise and

a great opportunity to gain an understanding of the constraints and pressures journalists worked under, as the AB-CRC seeks to promote its successes. Clearly a good working relationship between journalists and researchers should be symbiotic. Media training will be made available to interested individuals.

### THE AB-CRC 2007 DAVID BANKS MEMORIAL LECTURE

*By Stephen Prowse, CEO*

The 2007 David Banks Memorial Lecture was given at the AB-CRC National Workshop on Thursday 15 November. This annual lecture is in memory of the significant contribution Dr David Banks made to the AB-CRC prior to his untimely death on 7 May 2005.

Professor Mark Burgman, Director of the Australian centre of Excellence for Risk Analysis at the University of Melbourne, gave a very entertaining and insightful lecture entitled "Biosecurity risk: a risk like any other?". Mark put risk into a broader context and challenged us to consider the importance of language, assumptions and uncertainty in assessing risk. He then made some of us feel rather uncomfortable in outlining the pitfalls of using expert judgment and illustrating how overconfidence can affect risk analysis. Mark highlighted the need to develop processes and tools to overcome some of these problems in risk analysis. On behalf of the AB-CRC I want to thank Mark for a for a very stimulating and fitting 2007 David Banks Memorial Lecture.

## AB-CRC POSTGRADUATES PART OF EPIDEMIOLOGY NETWORK

By Elaine Llarena, AB-CRC student

Collaboration through formalised networks is one way to facilitate cooperation and linkage among countries, especially for those that have a common goal of disease eradication.

In November 2006 an epidemiological network was formed for the Malaysia-Thailand-Myanmar (MTM) Campaign for Foot and Mouth Disease (FMD) Freedom. Officially known as the MTM EpiNet, it is part of the AusAID Sanitary and Phytosanitary Capacity Building Program (SPSCBP) administered by the Australian Department of Agriculture, Fisheries and Forestry (DAFF). The OIE Southeast Asia FMD (SEAFMD) Campaign and Murdoch University Western Australia are also major collaborators within the network.

Four AB-CRC PhD students are members of the MTM EpiNet. Dr Polly Cocks (Network Coordinator), Dr Kyaw Naing Oo (member, Myanmar), Dr Siti Ramanoon (member, Malaysia) and Elaine Llarena (Communications Coordinator) are among the other epidemiologists and FMD specialists representing the three member-countries of the Campaign. Their involvement in the network provides a twofold advantage: the sharing of technical knowledge within the FMD MTM Campaign and, at the same time, contributing practical benefits for their PhD

research projects. In addition, the AB-CRC's international participation is intensified through communication and research support among the above MTM EpiNet members.



L-R: Elaine Llarena, Siti Ramanoon, Kyaw Naing Oo and Polly Cocks actively participating at MTM EpiNet. Photo courtesy OIE RCU, SEAFMD Campaign, Bangkok

The MTM EpiNet was established to provide timely and risk-based advice to the MTM Tri-State Commission, especially recommendations on disease surveillance, collection, and analysis of relevant epidemiological data and conduct of risk analysis, where appropriate. Training programs were also planned to enhance technical expertise of the network members while increasing capacity among field staff to conduct disease surveillance activities in their respective countries.

For more information about the MTM Peninsular Campaign for FMD Freedom, visit [www.seafmd-rcu.oie.int/mtm.php](http://www.seafmd-rcu.oie.int/mtm.php)

## AB-CRC RESEARCHER ACKNOWLEDGED FOR INNOVATIVE METHOD OF DISEASE PREDICTION

The following article entitled 'Uni's poop scoop' was written by Adam Orlando and appeared in the Fremantle Herald on 20 October 2007

Local researcher Abbey Bestall's scoop on poop has landed her a trip to Australia's major biotechnology conference in Brisbane later this month.

The Murdoch University student has used kangaroo poo to come up with a method of predicting whether diseases are likely to jump from animals to humans and how to track their spread. While her findings and methods are governed by intellectual property rights and cannot be released, the turd trial was enough to land her a spot at the AusBiotech conference.

"In the grand scheme of things this research is very significant because it acts as a model for how important emerging infectious diseases are," she told the Herald.

Dr Bestall said she hoped her faeces findings would better predict the outbreak of diseases such as salmonella and Q-fever. Industry and enterprise minister Francis Logan said Dr Bestall's roo poo work was an example of the quality and diversity of biotechnology research in WA.

“There is more to science than the stereotypical lab coat,” he quipped. “With a nationwide shortage of graduates in science and engineering, it is important for the nation that we encourage the study of science at secondary and tertiary levels.

“I congratulate Abbey for her groundbreaking work and hope her success will inspire other young Western Australians to take an interest in biotechnology.”

### **AB-CRC REWARDS KNOWLEDGE BROKERING EFFORTS**

*By Deb Cousins, Director Application and Linkage*

The AB-CRC’s commitment to its Knowledge Exchange and Adoption Framework was reinforced during the Application and Linkage Program update presented to the Board and annual participants at the AB-CRC’s annual workshop.

The Framework was ratified at a cross sector ‘Knowledge into Practice and Policy’ Workshop held in early October 2007 in Melbourne, jointly organised by the AB-CRC, Land and Water Australia and the National Institute of Clinical Studies. The AB-CRC developed its four-level knowledge brokering model in consultation with stakeholders in 2004. Knowledge brokering is now accepted as a key element of the AB-CRC framework and the first awards were celebrated at the AB-CRC’s 2006 annual workshop.

A number of knowledge brokers were presented with framed award certificates and a very good bottle of Peel Estate wine (courtesy of our Board Chair, Emeritus Prof. Mal Nairn) in recognition of their efforts. Each individual and team recognised support the knowledge brokering role and philosophy embedded in the AB-CRC, and their efforts were commended.

Awards were made to Dr David Smith for his role as a network knowledge broker within the Public Health Laboratory Network, Professor John Edwards for his unofficial knowledge brokering role facilitating collaborative research in our region, Andrew Breed, a PhD student who has made significant contributions to synthesising his research results for end-users and in outreach activities, and the peri-urban surveillance team comprising Trish Holyoake (the designated project knowledge broker), Jenny Ann Toribio, Marta Hernandez-Jover and Nicole Schembri for their outstanding efforts in stakeholder consultation.

### **QUANTIFICATION OF CONFIDENCE IN DISEASE FREEDOM**

A country’s ability to demonstrate freedom from disease underpins its national and internal biosecurity. Now, an important AB-CRC project has developed a system for analysis of surveillance data for exotic diseases of livestock, enabling countries to calculate accurately a level of confidence for claims to freedom from diseases.

To develop such a system, the AB-CRC project undertook quantitative assessments of Australia’s surveillance systems for detection of bluetongue disease, enzootic bovine leukosis (EBL) and bovine Johne’s disease, based on evidence from single or multiple surveillance components of all types.

“Historically, the only permissible quantitative evidence for freedom from a disease had been the survey of a representative sample of the population,” said project leader Tony Martin of the Department of Agriculture and Food Western Australia.

“Our goal has been to devise a generally accepted method for using all forms of evidence for disease freedom in a quantitative way, for example, how do we quantify the value of the fact that we have not seen the disease?; what is the value of the evidence derived from targeted or biased sampling?; or what is the current value of last year’s surveillance?” added Martin.

This project has produced a well-documented and peer-reviewed methodology based on the logical structure of the scenario tree. This framework allows the use of all such varied components of a surveillance system, both current and historical, towards a quantitative estimate of the current probability that the population is free from disease.

The project has also developed analytical software, which currently allows analysis of a single surveillance component, but eventually will handle combinations of multiple components.

The web-mounted program is functioning at [www.ausvet.com.au/freedom](http://www.ausvet.com.au/freedom) and is accompanied by an online user manual and full documentation of the methodology.

“Our goal has been to produce a tool to make scenario tree analysis accessible to potential users who have an understanding of the methodology, but lack advanced programming skills. This software ensures a consistent approach when it is used, and removes the need for complex, error-prone, spreadsheet implementations,” said Martin.

“This project grew out of an international workshop to address the need for analytical methods for assessing surveillance in the disease free situation, and there has been considerable demand for information and training courses in this area, both within Australia and overseas. The methodology is being used by analysts in various countries, and it is likely that general acceptance of freedom claims based on a range of varied surveillance evidence will develop over time,” Martin added.

For more information, contact

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## ADDING VALUE TO LIVESTOCK MOVEMENT DATA

An AB-CRC project has paved the way for far greater efficiency in the management of livestock diseases and other animal biosecurity programs, by enhancing the accessibility of a range of relevant information.

The project has developed a web-based environment for linking, reporting and querying data on livestock movements and locations, property information (including geographic information) and laboratory information.

This system brings together a commonly required set of data for tracing and managing infectious diseases of livestock, and provides a relational platform on which the additional needs of specific programs may easily be built.

“The beauty of the system we have set up is that it allows all managers of contributing databases complete control over what they make available to others, thereby ensuring maintenance of appropriate privacy and confidentiality,” said project leader Tony Martin of the Department of Agriculture and Food Western Australia (DAFWA).

The project set up a working prototype in Western Australia which has been used to handle and map tracing information in the national exotic disease exercise Wild West, in addition to

managing information for WA's 2006 outbreak of bovine Johne's disease and WA's ovine footrot control program.

The project aimed to enhance the utility of the newly introduced National Livestock Identification System (NLIS) for cattle, through linking NLIS information on cattle movements to state-based property ownership and geographical information and to laboratory submissions and reports. The laboratory information management system (LIMS) in use in WA and at the AAHL can now process samples labelled in the field using electronic transcription from an animal's NLIS tag, eliminating manual transcription errors. The LIMS record can then be linked through the NLIS identifier to the animal's movement history (using the NLIS database) and property-related information for every location the animal has been.

“The original AB-CRC project has spawned a number of additional projects. A related AB-CRC project lead by CSIRO is using similar approaches to quantify livestock movements through saleyards and other aggregation centres and the DAFWA has recognised the value of establishing linkages amongst various data sources and is looking to further develop the pilot site,” said Martin.

“Encouragingly, both the Department of Primary Industries and Resources of South Australia and the Office of the Chief Veterinary Officer in Canberra have shown great interest in several tools developed under the auspices of this project, and are looking to augment their own livestock data system with similar functionality,” he added.

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### THE AB-CRC 2007 CHRIS BALDOCK PRIZE

*By Stephen Prowse, CEO*

The AB-CRC has established the Chris Baldock Prize for Early Career Researcher to recognise the significant contribution of Dr Chris Baldock to the AB-CRC prior to his untimely death on 6 July 2005. Chris made an outstanding contribution to a number of AB-CRC partner organisations over many years. He will be remembered for his passion for epidemiology by all who knew him.

The Chris Baldock Prize for Early Career Researcher is open to early career researchers working in an area relevant to the mission and objectives of the AB-CRC. The prize includes funding of up to \$4,000 for conference travel. The winner of the 2007 prize was announced at the AB-CRC National Workshop in Melbourne in November.

The winner of the 2007 Chris Baldock Prize for Early Career Researcher is Dr Gavin Smith from Hong Kong University. Dr Smith’s research interests are the ecology and evolution of emerging viruses, primarily influenza and SARS. Dr Smith coordinates the genetic analysis of viruses isolated from the surveillance programs conducted through the University of Hong Kong. He also provides technical support and training to scientists throughout the South East Asian region. Dr Smith’s activities are highly relevant to the mission and objectives of the AB-CRC and he is a worthy winner of the award for 2007.

### AB-CRC ANNOUNCES INAUGURAL PHOTOGRAPHIC COMPETITION WINNERS

*By Jo Edmondston, Senior Project Officer, Application & Linkage Program*



*“A pig is presented for examination” by Andrew Breed – overall competition winner*

The winners of the Inaugural AB-CRC Photographic Competition were announced with great fanfare at the recent AB-CRC National Workshop. The overall winner of the competition was Andrew Breed for his photo ‘presentation of a pig for examination’ which was rated highest of the images by all three competition judges.



*“Dengue mosquito” by Paul Zborowski – runner-up*

Andrew’s photo showed a village pig being presented for examination and sampling during a survey of animals in Papua New Guinea by the PNG’s National Agriculture Quarantine and Inspection Authority (NAQIA), the Northern Australia Quarantine Strategy (NAQS), and the AB-CRC. The photo clearly captures beautifully the affection of the owners for their pig.

There was unanimous agreement that all of the 25 entries displayed photographic skills, artistic talents, and creativity of the entrants. Images were rated according to relevance to biosecurity, creativity, originality and technical excellence.

Runners-up were Paul Zborowski's 'Malaria mosquito' which shows in fine detail an *Aedes aegypti* mosquito in the process of egg-laying, and Andrew Breed's photo of a flying fox fitted with a telemetry collar. Highly commended images included Celia Smuts exquisite photo of an ant in a leaf entitled 'Border Control', Carol de Jong's enchanting image of four bats, and Hume Field's captivating photo 'Bats for sale' showing the preparation of bats for human consumption in an Indonesian market.



*"Satellite telemetry of a flying fox in New Guinea"*

*by Andrew Breed – runner up*

The photographic competition closed six weeks prior to National Workshop dinner and entries were prepared for judging by Erin Rummer in the Perth node of the AB-CRC. The judging panel comprised Peter Maloney, photographer from the Department of Agriculture and Food Western Australia, Deb Cousins and Jo Edmondston.

Organised by the AB-CRC's Application and Linkage Program, the photographic competition was open to members of the AB-CRC, their colleagues and friends. The competition was run as a team building exercise and as a means of generating images for AB-CRC promotional purposes. All images submitted to the competition can be viewed on the AB-CRC website by following the 'News' link.

### **AB-CRC SCHOLARSHIP WINNER**

Final year AB-CRC PhD student Chris Cowled recently received an AB-CRC scholarship to assist him to attend the recent Melbourne University CRC Innovation and Leadership 2007 course. Cowled's field of research is the characterisation of novel and emerging viruses of Australian livestock and his findings are already providing immediate benefits to industry in the form of diagnostic tests and may also provide long term benefits through better understanding of the biology and ecology of viruses in the Australian environment.



As Cowled's PhD is nearing completion, he is preparing to move into a position of greater responsibility and ultimately to lead a research team of his own. He has a strong interest in science education and the process of mentoring and he believes he will almost certainly be supervising student research projects in the near future.

"I am acutely aware of the increasing emphasis placed on collaboration in research and I see myself as having an important role in establishing and managing collaborative projects in the future," said Cowled.

"About 30 PhD students and post-docs from all over the country attended the course, covering a wide range of disciplines and representing many different CRC's. It was certainly an action packed week with lectures, team activities, role-playing, and even the odd excursion," said Cowled.

"We learned about leadership and communication and the commercialisation of research outcomes. We also completed psychology questionnaires to identify our strengths, weaknesses and preferences and then learned how these may influence our leadership style. There were sessions on taking a discovery through to market, protecting intellectual property and career development. I had a lot of fun and came away with a strong commercial awareness and a lot of good material to use in the future," he added.

## ANNUAL NATIONAL WORKSHOP 2007

*Novotel Hotel St Kilda  
14-15 November 2007*

*Dr Peta Edwards, Education and Training Program  
Coordinator*

The fourth AB-CRC National Workshop followed the recent WAVLD conference in Melbourne. Registration on Wednesday evening was followed by the AB-CRC's 'Meet the Press' event – an entertaining and enlightening experience for most.



Scientific sessions took up most of Thursday and Friday and were preceded by presentations by Janine Muller, Annette Dougall; and Nicole Schembri who described their experiences on student-placement scholarships in countries as diverse as Taiwan, the USA, Brazil and England. A staff placement report was presented by Marta Hernandez-Jover on the Friday morning. These placements aroused quite a lot of interest given their many benefits including developing skills and expertise not available in Australia, networking opportunities, exchanging ideas and experiencing the joys of different cultures and people.



*L to R Stephen Prowse, Andrew van den Hurk, Celia Smuts, Tze Hoong Chua, Kirsty van Hennekeler, Peta Edwards and Mal Nairn.*

Further additions to the Workshop program this year were updates by Lisa Adams and Deb Cousins on the Mark II CRC and Application and Linkage. The David Banks Memorial Lecture delivered by Mark Burgman, Director of the Australian Centre of Excellence for Risk Analysis, was the finale for Thursday's sessions. This was a brilliant, humorous and most entertaining address that was rated extremely highly by all who attended. A full day was followed by the official poster session at 6.00pm. It was good to see an excellent attendance with people enjoying the extremely high quality of the posters as well as soaking up the ambience created by a classical quartet, good wine and food, and interesting company.

The official dinner that followed was a noisy affair with teams pitting their investigative skills to solve the 'Who am I' quiz that exposed some very cute photos of members of the AB-CRC as children. During the evening, the 'Knowledge Brokers' Awards' and the winners of the Photographic competition were announced.

The oral presentations given over the two days of the workshop were of the highest quality, informative and at times, humorous. Mal Nairn, Chair of the AB-CRC Board presented Aileen Plant Awards to the outstanding presenters in a number of categories. These were:

*Best Long Oral Presentation (student): Kirsty Van Hennekeler*

*Best Short Oral Presentation (student): Celia Smuts*

*Best Oral Presentation (international student): Tze Hoong Chua*

*Best Oral Presentation (researcher): Andrew van den Hurk*

*Best Poster Presentation (student): Odwell Muzari*

Please contact Therese Conway ([therese.conway@abcrc.org.au](mailto:therese.conway@abcrc.org.au)) if you wish to download any of the National Workshop's proceedings or photographs.

## STUDENT WORKSHOP

*Novotel Hotel St Kilda  
12-13 November 2007*

*By Peta Edwards, Education and Training Program  
Coordinator*

'Challenging', 'took me way out of my comfort zone', 'tough but interesting and very informative', 'hard but enjoyable' were some of the comments from the AB-CRC postgraduate students who attended the two-day Australian Institute for Commercialisation bootcamp in St Kilda that preceded the National Workshop.

The bootcamp was conducted by Lewis Atkinson and Fiona Solomon and addressed the 'who, what, why, when and how' of commercialisation. Other modules covered by guest speakers included intellectual property management and case studies that examined real products from research being taken to market.



The students were also involved in group work that necessitated defining and developing IP resulting from a research project provided by Lewis. This was an exercise carried out over the two days of the bootcamp that culminated in a 'pitch' competition involving all the teams. Teams had to deliver a five-minute pitch about their project to an external (mock) investment committee panel comprising John Bates and Stuart Wallace. The questions asked by the panel got harder and harder as each team delivered.

There was some wonderful acting and many 'big ones' told by students as this session proceeded, but best of all was the humour demonstrated by everyone concerned.

Students recognised they would be using the bulk of knowledge attained from the bootcamp after completion of their PhDs, especially if they moved into the supervision of research projects. As a balance, Stephen Prowse talked about research at the AB-CRC that would not result in commercialisation of its IP and indicated to students that because of the nature of the AB-CRC this was more the norm.

After a very strenuous first day (Lewis believed in the students working through breaks as much as possible – well it was a bootcamp after all) we all adjourned to dinner and were joined by a few students who were attending WAVLD. A good night was had by all - plenty of laughs, good food and wine and very enjoyable company set the tone for the evening and the following day.

On behalf of the students and the AB-CRC, I would like to thank Lewis Atkinson, Fiona Solomon, John Bates, Tim Clark, Stuart Wallace, Kris Trott and Stephen Prowse for their contributions to an exciting bootcamp.

### **'SAFEGUARDING AUSTRALIA' LECTURES NOW AVAILABLE**

Transcripts of two public lectures delivered at the Australian Academy of Science by AB-CRC scientists are now available on the internet. The lectures are part of the Safeguarding Australia 2007-2008 series.

Dr Mike Nunn, Principal Scientist (Animal Biosecurity) at Biosecurity Australia, presented 'From mad cows to disappearing bees: safeguarding Australia from emerging diseases of animals' on 7 August 2007. His talk explored some recent examples of emerging diseases and how scientific and technological advances are being used to help safeguard Australia from such diseases. This was the first talk in the Safeguarding Australia series of lectures. Dr Nunn's lecture and presentation slides are available at [www.science.org.au/events/publiclectures/sa/nunn.htm](http://www.science.org.au/events/publiclectures/sa/nunn.htm)

John Mackenzie, Professor of Tropical Infectious Diseases and AB-CRC Deputy CEO presented 'Emerging viral diseases: what are the threats and how should we respond?' on Tuesday 4 September 2007. Professor Mackenzie discussed some of the factors leading to the emergence of viral diseases, and proposed a revised surveillance and response system to these threats as an area in which Australia can make a large contribution to a global problem. This was the second talk in the Safeguarding Australia series of lectures. Professor Mackenzie's lecture and presentation slides are available at [www.science.org.au/events/publiclectures/sa/mackenzie.htm](http://www.science.org.au/events/publiclectures/sa/mackenzie.htm).