



## DIAGNOSTICS ADOPTION FORUM Melbourne, 6-7 August 2008

### Executive Summary

The *Diagnostics Adoption Forum* held in Melbourne on 6-7 August 2008 brought together over 50 researchers and end-users to review diagnostic research projects funded by the Australian Biosecurity Cooperative Research Centre for Emerging Infectious Disease (AB-CRC). The delegates explored possible pathways to adoption of this research and identified a number of knowledge and research gaps. Consideration was given to how the AB-CRC and the proposed Biosecurity CRC Mark II could contribute to filling these gaps and prioritise future research.

On Day 1 of the forum, maturing projects in the AB-CRC's *Technologies for Enhanced Detection* Research Program were reviewed. Over four sessions, with topics ranging from test development through to building capacity, researchers presented the outcomes of 14 projects. Each session included a panel discussion which posed specific questions relating to the design and implementation of diagnostic tests. A number of the inherent difficulties posed by testing were raised in discussion, including test validation, cost, and the development of a 'perfect test'. There was consensus that 'fitness for purpose' should be the prime driver for the design and development of a test, and common agreement that shared reagents and common platforms offer significant benefits.

Day 1 concluded with a workshop in which a number of key outcomes, opportunities and gaps in research were discussed. Several opportunities for the AB-CRC were identified, including the development of new training programs, ongoing development and technology transfer of diagnostic tests for pathogen detection, strengthening of 'One Health', and further capacity building in the region. Validation was noted as an area with key knowledge gaps and a significant area of opportunity for the AB-CRC. It was suggested that researchers put themselves 'in the shoes' of diagnosticians and build validation into the early stages of their projects. It was also suggested that the scope of AB-CRC research could be broadened (particularly in the health sector) and that the legacy of the AB-CRC should be considered.

The second day of the forum aimed to inform delegates of future technologies for disease characterisation and assist the CRC Mark II Program Development Team in the development of the CRC Mark II research portfolio based on delegates' views of these new technologies. Over two sessions, 12 representatives from animal and public health sectors presented their views on new horizon technologies and their potential for improving early warning capability. The presentations reiterated a number of the issues raised on Day 1, including end-user engagement in diagnostic test development, incorporation of validation into research, and 'fitness for purpose'. Point-of-care (POC) tests were discussed in detail, and it was noted that there needs to be a systematic analysis of these tests for use in Australia and the region. The need for improved and common understanding of public health and animal health systems, better coordination of the national system, and better links between

these systems were also noted. The final session of Day 2 was a panel discussion, which considered the cost of implementing and trialing new technologies and the benefits they offer.

Feedback from the delegates indicated that the forum was very productive and contributed significantly to knowledge exchange amongst AB-CRC researchers and end-users. There was strong support for the uptake and adoption of AB-CRC funded research, and acknowledgement that taking research into practice or policy offers significant national benefits and is critical to the success of the Centre. The AB-CRC's PhD program was commended for its role in promoting a skilled biosecurity workforce. The Centre's role in improving national and regional preparedness and response capacity through diagnostic test development and capacity building was also commended.

A number of recommendations for the AB-CRC have been developed based on the forum outcomes and feedback provided by delegates. These recommendations will drive the Ab-CRCs planning of future research and knowledge exchange activities

**Recommendation 1: The AB-CRC continue to update and inform industry representatives and state and Commonwealth agencies of activities and outcomes from its diagnostic research portfolio, and promote interaction and linkage between AB-CRC researchers and these stakeholders.** The benefits of information exchange about diagnostic technologies and research was highlighted in the forum. The AB-CRC will continue to promote information flow in this area through its established knowledge exchange mechanisms. It will also consider holding another diagnostics adoption forum in the future, contingent on funding. Future forums could provide a brief update of projects and allow greater time to be allocated to technology updates and groups discussions and workshops. Consideration will be also be given to promoting national capacity by increasing cross-sector sharing and broadening sector representation to include delegates from the plant biosecurity and aquatic animal health.

**Recommendation 2: The AB-CRC continues to advance diagnostics research through its existing research program.** The AB-CRC will follow-up with project leaders, researchers and end-users to consider the relevant issues that were raised in the forum. The AB-CRC acknowledges its role in funding research that addresses gaps in knowledge and ways these gaps may be filled by ongoing research, and will consider supporting new and ongoing projects that fit within Centre's remit and budget allocation.

**Recommendation 3: The AB-CRC consider future priority areas in diagnostics research for inclusion in the Biosecurity CRC Mark II.** Proposed or commissioned diagnostics-related research projects that continue on from current projects should be reviewed in light of the responses provided by the forum.

**Recommendation 4: The AB-CRC disseminates the outcomes of the Diagnostics Forum.** In addition to producing a forum report, the AB-CRC will highlight a number of the forum outcomes to specific end-users of AB-CRC research. In particular, comments regarding validation, POC tests and new test development will be forwarded to SCAHLS in a briefing note accompanying the report and the Centre will continue to work with SCAHLS to promote researcher understanding of these issues. Opportunities for reagent sharing will be followed up with specific laboratories and where appropriate, policy-related issues will be raised with the responsible state or federal agency.

The full Diagnostics Adoption Forum Final Report is available as a PDF on the AB-CRC website:

<http://www1.abcrc.org.au/>