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Mr Russell Chafer
Committee Secretary
Standing Committee on Industry, Science and Innovation
PO Box 6021
Parliament House
Canberra ACT 2600

Email: isi.reps@aph.gov.au

Dear Mr Chafer

Inquiry into Australia's International Research Collaborations

I am enclosing Deakin University's submission to the House of Representatives Standing Committee on Industry, Science and Innovation's Inquiry into Australia's International Research Collaborations.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Anthony Mordini'.

Dr Tony Mordini
Executive Director, Office of the Vice-Chancellor

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**SUBMISSION TO THE HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON INDUSTRY, SCIENCE AND
INNOVATION**

Inquiry into Australia's International Research Collaborations

Deakin University

January 2010

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Deakin University is very committed to building effective research collaborations. Indeed, Deakin's current Strategic Plan is entitled "Delivering Effective Partnerships" – see <http://www.deakin.edu.au/vice-chancellor/planning/strategic-plan.php> . The section in the Strategic Plan that deals with Research and Research Training outlines a number of Strategies and Targets in relation to research partnerships, including international partnerships. The University has been particularly active in developing international research collaborations and welcomes the opportunity to make a submission to this Inquiry into Australia's International Research Collaborations.

1. The nature and extent of existing international research collaborations

Deakin University is developing international partnerships that build on and augment its existing areas of research strength. *Delivering Effective Partnerships* identifies six core commitments; these include: "research that makes a difference" and "an international outlook". Through international partnerships in relation to research and research training, Deakin is addressing contemporary issues relevant to international communities.

The University's international research partnerships operate in a number of forms including:

- traditional collaborations between research leaders associated with universities and research institutes
- undertaking applied projects with multinational companies
- involvement in "grass roots" projects based on the social sciences or appropriate technologies to assist communities in developing countries.

Deakin University has targeted strategic alliances in India and China. In India, the University has relationships with a wide range of biotechnology companies and research institutes including:

- The Energy Resources Institute (TERI)
- Biocon Laboratories
- VIMTA Laboratories
- Evolva Laboratories
- The Indian Centre for Cell and Molecular Biology
- The Indian Institute for Chemical Technology
- The Vision Institute.

Deakin also has partnerships with Indian steel, nanotechnology and materials companies and with research institutes including:

- Tata Steel
- General Motors Research Laboratories
- Indian Oil Corporation Limited
- The Indian Institutes of Technology at Roorkee, Chennai, Delhi and Kharagpur.

In China, Deakin University has significant partnerships with Hefei University (Automotive Materials and Design); Wuhan Steel; and the Chinese Academy for Tropical Agricultural Science in Zhanghia.

In the Asia and Asia-Pacific region, Deakin researchers have established collaborations that draw particularly on expertise the University has in the social sciences. This has included working with developing communities on issues such as climate change, specifically as a policy issue, sustainable livelihoods and food security.

In addition, Deakin researchers have collaborations with institutions covering a broad range of discipline areas in North America and Europe, including the University of California, the University of British Columbia, McGill University, McMaster University, and the Universities of Warwick and Birmingham.

2. The benefits to Australia from engaging in international collaborations

The benefits which Deakin has drawn from its international research collaborations include:

- opportunities to interact with research groups working at the cutting edge of research, bringing the best ideas to Australia
- access to a network of world class facilities and reduced need to duplicate these in Australia
- access to a supply of high quality PhD candidates as the powerhouse of fundamental research activity, particularly in areas where the domestic supply is limited
- access to world markets for applied research
- access to larger international companies for research translation
- access to research students in technical areas
- capacity building through its contribution to research development in India and China
- multicultural understanding in the research space - forging future research collaboration and development
- developing a research alumni that will foster future collaboration on their return to their own countries
- developing new markets for Australian products overseas.

3. The key drivers of international research collaboration at the government, institutional and researcher levels

At the Government level, research collaborations enhance Australia's intellectual capital and build understanding and recognition of Australia as a significant partner with shared economic, scientific and cultural interests. Australia's engagement in research areas of global concern - particularly energy, water and food security, carbon emissions and environmental and health issues - increases Australia's recognition as a nation of relevance in global decision-making.

From an institutional perspective, the key drivers relate to the development of strategic alliances and partnerships in areas of research strength. These promote growth and strengthen the quality of an institution's research endeavours through the mechanisms such as those outlined in Section 2.

From the researchers' perspective, one key driver is the opportunity to interact with leading researchers in their field. All of Deakin's researchers aspire to undertake work that is recognised at the global level. Working alongside people who have already achieved that status is a vital part of that process. Another important driver of international research is access to world-class facilities. This has benefits for both the researcher and for Australia. It means Australia does not have to replicate expensive laboratories and other facilities already available in other nations.

One final key driver is the additional capacity to attract international PhD students, particularly in critical areas of low demand from domestic students.

4. Impediments faced by Australian researchers when initiating and participating in international research collaborations and practical measures for addressing these

Australian researchers and research institutions face a number of impediments as they seek to engage with the world of international research. These include:

- distance from other research centres (costs and time)
- cultural and language differences particularly in some parts of Asia
- limited resources to bring collaborators to Australia
- waiting periods for visas to enter Australia
- visa requirements to enter Australia.

Practical measures to address these include:

- government facilitated programs that will encourage and support Australian researchers who wish to participate in international collaborations
- funding for researchers to travel overseas
- fellowships to bring international researchers to Australia for a sustained period of time
- changes to visa processes for international research students and researchers wishing to come to Australia.

5. Principles and strategies for supporting international research engagement

A number of key principles should support and underpin Australia's international research engagement. Australia's international research activity should be:

- high quality and of strategic importance to Australia
- of mutual benefit to Australia and its international partners
- contributing to Australia's international research reputation
- producing outcomes that are globally significant.

Effective ways to support the development of Australia's international research engagement include:

- funding programs that will encourage and support Australian researchers who wish to participate in international collaborations
- providing funds for researchers who wish to travel overseas
- funding fellowships that will support researchers who wish to undertake international research projects
- providing financial support for international researchers who wish to work in Australia for a sustained period of time.

Deakin has long recognised the need to "work with the world". For example, there are more than 20 nations represented among the research staff at Deakin University's Institute for Technology Research and Innovation on the Geelong Campus at Waurn Ponds. These researchers have enabled Deakin to broker new international research collaborations of benefit not only to Deakin, but to the wider community in Australia and abroad.

A crucial strategy employed to support Deakin University's international research engagement has been the identification of the University's research strengths and then engaging with world-class researchers in those fields globally for mutual benefits both to the research activity and to the people of those nations. Research communication is a critical feature of this strategy. Deakin's researchers are encouraged to develop their communication skills so that international colleagues can readily find information about them and their work, and are encouraged to work with them. This strategy has had the additional flow on effect of informing policy development in Australia and overseas.