

BILATERAL ACTIVITIES

Bilateral activities provide opportunities for Academy and government officials to meet high-level international researchers and research funders to discuss international science and technology policy and practices and to promote Australian research and technology. These opportunities also help to promote and strengthen long-term relationships and increase Australia's presence and influence at the international level. Meetings between Academy representatives and their international counterparts provide opportunities to discuss the operation of individual programs and make necessary modifications to ensure they are meeting their objectives.

A large part of the Academy's bilateral activities is funded as part of the Australian Government Department of Education, Science and Training's International Science Linkages — Science Academies Program.

The Academy organised a series of scientific symposia and workshops on global issues, conducted in Australia and overseas. To enable wide dissemination of information from the workshops, the publications and presentations have been posted on the Academy's website.

Asia

China

International Students Forum

Professor Andrew Smith represented the Academy at the second International Students Forum organised by the Graduate University of the Chinese Academy of Sciences in Beijing from 30 June–2 July. This was the first time Australia has been invited to participate in the forum, established to promote friendship and cooperation between China, Japan and the US. Five Australian students attended the forum, sponsored by the University of Melbourne, RMIT University and the University of Wollongong.

Australian garden at the South China Botanical Garden

An Australian garden is being established at the South China Botanical Garden in Guangzhou. The garden will represent Australian flora in a naturalistic landscape and provide interpretation of relevant plant science and aspects of Australian social history. Garden themes include prominent Australian plant groups, ecological communities, Aboriginal culture and evolution and biogeography of Australian flora. The project was initiated following a 2003 visit to the Australian National Botanic Gardens by President of the Chinese Academy of Sciences Professor Yongxiang Lu. During his visit, Professor Lu expressed a desire to establish an Australian garden at the Guangzhou botanic gardens.



A little corner of Australia in China: thanks to Professor Yongxiang Lu

The project was approved in 2005 and is sponsored by BHP Billiton with the Academy administering the funds. The first shipment of Australian plants arrived in China in February and the project is due to be completed in late 2007.

Australia-China Energy Symposium

Almost 50 researchers from Australia and China discussed the important issue of energy at the Australia-China Energy Symposium in Sydney from 5–7 November, the third annual joint symposium with the Chinese Academy of Sciences. The symposium, organised by the Academy and the Australian Academy of Technological Sciences and Engineering (ATSE) on behalf of the Department of Education, Science and Training, investigated three crucial areas: transportation fuels, static renewable energy for power generation and traditional energy sources.



Meeting of minds: gathering to discuss energy issues

Following the symposium, the Chinese delegation visited research facilities including CSIRO Energy Technologies in Newcastle and the ARC Photovoltaics Centre of Excellence at the University of NSW. The Australian delegation was led by Academy President Professor Kurt Lambeck and the then ATSE President Dr John Zillman. The symposium was officially opened by Chief Scientist Dr Jim Peacock. The program and presentations from the symposium are at: www.science.org.au/events/australiachina/index.htm

The Chinese delegation was led by President of the Chinese Academy of Sciences Professor Yongxiang Lu, who also made a brief visit to Canberra where he gave a talk on China's future prospects at the Shine Dome on 8 November. Professor Lu outlined the challenges facing China's development and how it is striving to build an innovation-orientated country. His presentation is at:

www.science.org.au/events/lu.pps

Indonesia

The Australia-Indonesia Joint Symposium in Science and Technology was held in Jakarta from 13–15 September. Future strategies for Australia and Indonesia to identify opportunities for further research cooperation were discussed during the plenary sessions. The workshops investigated biotechnology and agriculture, focussing on the early diagnosis of diseases and on energy and water, specifically the centralisation and decentralisation of these commodities. The aim of the symposium was to promote research cooperation between Australia and Indonesia and recommend courses of action arising from the symposium and related activities. The Australian delegation was co-led by Professor Leon Mann, Academy of Social Sciences in Australia and Professor John Mackenzie, Australian Biosecurity CRC and Curtin University of Technology. The meeting was held under the umbrella of the Department of Education, Science and Training and the Indonesian Ministry for Research and Technology. The Academy organised the symposium under the agreement signed in 2005 for building bilateral cooperation between Indonesia and Australia in scientific research and technological development.

Japan

Scientists from Australia and Japan discussed two increasingly important areas of research at the Australia-Japan Symposium on Earth Systems Science and Nanomaterials at the Australian National University from 20–21 November. The symposium, organised by the Academy on behalf of the Department of Education, Science and Training, also provided a forum for participants to identify opportunities for mutual scientific cooperation.

The Japanese delegation was selected by the Japan Society for the Promotion of Science and the Japanese Ministry for Education, Culture, Sports, Science and Technology. Co-convening the symposia were Chair of the National Committee for Earth System Science Dr Roger Gifford and Chair of the Australian Research Council Nanotechnology Network Professor Neville Fletcher.

Korea

A letter of intent focussing on early-career researchers and improved information exchange was signed by the Academy, the Australian Academy of Technological Sciences and Engineering, the Australia-Korea Foundation and the Korea Science and Engineering Foundation on 6 December. The action follows the identification of the need for both countries to raise awareness of the other's exceptional research capabilities and potential.

Young Australian and Korean scientists will benefit through an early-career research program aimed at encouraging them to spend up to three months collaborating with science and technology colleagues in each other's countries. A series of symposia concentrating on areas identified as having the ability to increase information exchange and co-operation in science and technology will also be held in Australia and Korea. The Australia-Korea Foundation is generously funding the early-career program which commenced in early 2007 and DEST is providing support for the symposia, scheduled for the latter part of the year.

Europe

France

French Embassy Cotutelle fellowship program

The French Embassy Cotutelle fellowship program, operating in Australia and France, allows PhD students to work under the direction and responsibility of a thesis supervisor in each country. The program, designed to enhance two-way international research collaboration, began in Australia in 1997 with the Academy administering the program since 2002. Each Cotutelle project is established under a reciprocal arrangement and a 'Cotutelle convention' binds the two partner institutions and recognises the validity of the studies undertaken. On completion of the program, successful students are awarded a double-badged degree — a PhD from Australia and a PhD from France.

Germany

Meetings of Nobel Laureates in Lindau

For the second year, a group of seven Australian early-career researchers attended the Lindau Foundation Nobel Laureate meeting at Lake Constance in Germany, from 25–30 June. Twenty-three Nobel Prize winners and 530 young scientists from 53 countries attended the meeting, which this year focussed on chemistry. The scientists participated in plenary sessions, round-table debates and small group discussions. The Australian delegation was led by Professor Max Crossley.

Bilateral workshop on nanotechnology

Australian and German researchers investigated new and emerging areas of mutual interest in nanotechnology and related science issues at the bilateral workshop held in Karlsruhe, Germany from 23–24 November. Before the workshop the participants had the opportunity to visit the 2006 Nanofair, also held in Karlsruhe. Leading researchers from both countries, including eight Australians, participated in the workshop organised by the Academy on behalf of the Department of Education, Science and Training. Professor Laurie Faraone led the Australian delegation that travelled to Karlsruhe. The German convener was Dr Andreas Leson from the Fraunhofer Institute for Material and Beam Technology.

North and South America

Argentina

An Argentinean delegation led by Secretary for Science, Technology and Productive Innovation Tulio Del Bono visited the Academy on 31 August, when they met Professor John White. The main aims of the visit were to expand cooperative activities under the Memorandum of Understanding on Science and Technology signed by Australia and Argentina in 2004 and establish relations with the main research institutions involved in biotechnology, agriculture, clean technologies and information society to agriculture. Fruitful discussions on nuclear energy and the ethical policies and procedures that underpin stem cell research in Australia were initiated at the meeting.

United States

East Asia and Pacific Summer Program for US Graduate Students

The US National Science Foundation selected 20 students to travel to Australia from June to August as part of the East Asia and Pacific Summer Program for US Graduate Students, a joint program with the Academy. The graduate



American graduate students brave Canberra's winter

students in science, engineering and social sciences visited Australia for eight weeks during the American summer, to do research in laboratories and to initiate personal relationships with their Australian counterparts. Australian host institutions provided the students with office accommodation, access to laboratory, library and computing facilities, as well as technical assistance and the time and expertise of the host researcher.

The Academy organised a three-day orientation program in Canberra from 14–16 June for participating students. Academy Foreign Secretary Professor Jenny Graves welcomed them and Dr Hugh Tyndale-Biscoe gave a talk about his research on Australian mammals. The students also visited the National Museum of Australia and the CSIRO Discovery Centre and attended Question Time at Parliament House. Site visits to science faculties at the Australian National University provided a valuable opportunity to observe Australian post graduate education facilities. Reports from the participants indicate that the visits enabled them to enhance their research experience by comparing scientific approaches and outcomes, as well as building strong networks with a view to future collaborative research projects between home laboratories and the host researchers.

The Adam J Berry Memorial Fund for visits to the National Institutes of Health

The Adam J Berry Memorial Fund is co-managed by the Academy and the US National Institutes of Health Foundation. The fund, established in memory of a young Australian scientist, aims to assist one early-career Australian researcher to travel or work in the US at one of the institutes of the National Institutes of Health (NIH) each year. As well as gaining valuable experience, scientists are expected to make a contribution to the research program of the institute to which they are temporarily attached. A special committee, chaired by Director of the Research School of Biological Sciences at the Australian National University Professor Jonathan Stone, assesses and recommends suitable candidates for this award.

The recipient of the 2006 award is David Van Bockel, a PhD student at the National Centre in HIV Epidemiology and Clinical Research at the University of NSW. The funding will enable David to travel to the Vaccine Research Centre at the National Institutes of Health in Maryland, where he will further his research on HIV pathogenesis using technology and expertise not available in Australia.

Other international activities

Federation of Asian Scientific Academies and Societies

Academy President Professor Kurt Lambeck attended the Council Meeting of the Federation of Asian Scientific Academies and Societies (FASAS), at the National Institute of Education (NIE) in Singapore on 11–22 September 2006. The meeting was hosted by the Singapore National Academy of Sciences. Following the meeting, delegates took part in a Science Education Colloquium, organised by NIE, and the FASAS workshop 'The Role of Science Academies in Science Promotion and Science Education'. Delegates also took the opportunity to visit the NIE, Singapore's sole institute for teacher training.

During the meetings, Professor Lambeck gave presentations about four of the Academy's major science education programs: *Primary Connections*, *Nova: Science in the news*, *Interviews with Australian Scientists* and *Science by Doing* for secondary school students.

The Academy agreed to assume the Presidency of FASAS for three years, beginning in 2009.

The Royal Society

Executive Secretary of the Royal Society Stephen Cox visited the Academy on 14 December 2006. Mr Cox met senior staff to discuss the Academy's activities, particularly those relating to science education, communication, science policy and international relations. Chair of the National Committee for Plant and Animal Science Dr TJ Higgins and Chair of the National Committee for Earth System Science Dr Roger Gifford also met Mr Cox, to discuss the possibility of joint activities between the Royal Society and the Academy.

The Academy and the Royal Society signed a Memorandum of Understanding in 1985 and maintain close links.

Forum for European-Australian Science and Technology Cooperation

The European Union is Australia's largest scientific partner, mainly through bilateral collaboration but also through multilateral projects.

The diplomatic missions representing the Member States of the European Union and the European Commission in Australia, in association with major Australian science and technology organisations, including the Academy, have embarked on a common action to highlight and improve this cooperation. This initiative is known as the Forum for European-Australian Science and Technology cooperation (FEAST).

The FEAST conference, Research Without Borders, was held at the Shine Dome from 28–29 November with 250 attendees from Europe and Australia gathering to actively participate in this global approach to science. The conference program bolstered bilateral relationships by identifying and discussing the requirements, opportunities and barriers to collaborative research projects between Europe and Australia.

Academy hosts Education and Science Counsellors

On 14 March 2007, the Academy and the Academy of Technological Sciences and Engineering (ATSE) hosted an informal gathering of Department of Education Science and Training Counsellors based in Australian missions overseas. A number of Fellows from the Academy and ATSE as well as Science and Technology Counsellors from foreign embassies in Canberra also attended.

Professor Lambeck and ATSE Foreign Secretary Dr Mike Sargent spoke about the role of the Academies in international linkages and the importance of using science as a foreign policy tool. The event provided an occasion to share experiences and explore opportunities to promote international scientific and technological cooperation.

Diplomatic missions

The Academy continues to maintain regular links with a number of Counsellors and Scientific Attachés in Australia's embassies. In the same way it maintains fruitful relations with many foreign Embassies in Canberra, including the missions from France, Germany Italy, the UK, the US, China, Japan, Korea, Taiwan and Argentina.

Further information about international programs is available at: www.science.org.au/internat