

Research and commercial opportunities in biotech



AUSTRALIA AND INDIA HAVE STRONG BIOTECHNOLOGY INDUSTRIES AND COMPLEMENTARY STRENGTHS. AUSBIOTECH EXPLAINS THE NEW JOINT RESEARCH PROJECTS AND MUTUAL OPPORTUNITIES IN THE INDUSTRY.

B iotechnology is a global industry that has been in a rapid growth phase in recent years around the developed world – providing solutions to health problems, life-threatening pandemics, food shortages and, more recently, climate change. There is little doubt that supportive governments and sympathetic public policy, as well as partnering with like-minds around the globe, are key to the survival and success of biotechnology.

The Australian biotechnology industry has worked diligently to become the sixth largest biotechnology industry globally. Australia is an excellent country in which to conduct clinical trials. With India's track record of fast growth, the largest offering of FDA-approved manufacturing facilities outside the United States and strong government support with the 'National Biotechnology Strategy', there are significant prospects and opportunities for India and Australia to work together.

AUSTRALIA-INDIA LINKS

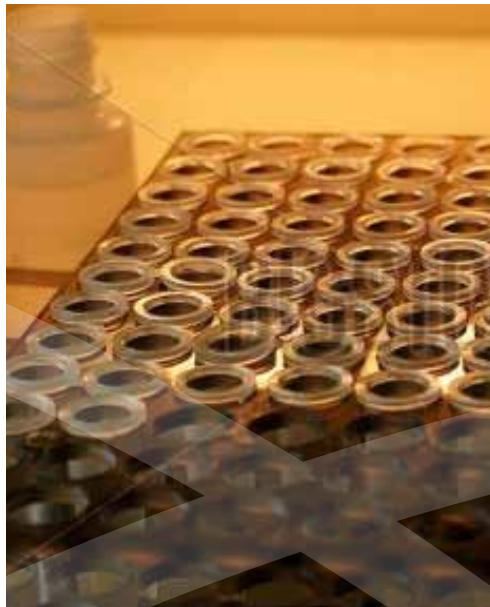
AusBiotech, Australia's biotechnology industry organisation that represents more than 3000 members, has led business missions to India over recent years with more than 30 companies and universities participating in a program of business seminars, site visits and networking events in Hyderabad and Bangalore.

Each year, AusBiotech hosts an event, which has earned a reputation as the industry's premier biotechnology conference for the Asia Pacific region. In 2011, the conference theme is Creativity, Capability & Capital. It will be held in Adelaide, South Australia in October 2011.

AusBiotech is Chair and Secretariat for 'BioNet Asia Pac', a network of 10 countries, which was launched in 2007. Members include India, Japan, Malaysia, New Zealand, Taiwan, Singapore, South Korea,

Indo-Australian Biotechnology Fund Project	Research partners	Funding
Development of selenazole drugs as a novel class of anti-cancer agents targeting the immune system	University of New South Wales and Indian Institute of Science	\$300,000
Therapeutic approaches to augmentation of adult cardiac stem cells	Victor Chang Cardiac Research Institute and Institute for Stem Cell Biology and Regenerative Medicine	\$400,000
Development of a novel bioreactor and cell sorter for more efficient production of stem cell culture	Monash University and Indian Institute of Technology Bombay	\$299,539
Production of omega-3 concentrates for functional foods, pharmaceuticals and nutraceuticals	Deakin University and Centre for Cellular and Molecular Biology	\$298,755
Structure-based design of malaria vaccines to elicit stronger immune responses	Monash University and Indian Institute of Science	\$299,340
Identifying and testing molecules which can be used as tools to simultaneously manipulate multiple genes to improve temperature tolerance in crop plants	The University of Queensland and International Centre for Genetic Engineering and Biotechnology	\$299,700
Planning a program of collaborative laboratory and clinical research on the role of lactoferrin derived from cow's milk to prevent prematurity, neonatal infections and mortality in humans	The University of Sydney and Postgraduate Institute of Medical Education & Research Chandigarh	\$11,200
Using a natural anti-viral system (RNA interference) to combat disease to make aquaculture more economically and environmentally sustainable	James Cook University and Karnataka Veterinary Animal and Fisheries Sciences University	\$294,099

'The Australia-India Strategic Research Fund announced eight new projects within its biotechnology fund in May 2011.'



Thailand, United Arab Emirates and Australia. Corporate and institutional members of the related industry associations have access to a closed website, which details the biotechnology companies working in each country. The group works to centralise opportunities and strengths from the region into a connected network.

COLLABORATING IN RESEARCH

There are a significant number of research collaborations between Australian and Indian universities, including programs at The University of Melbourne, Monash University, Queensland University of Technology, and the Queensland Institute of Medical Research.

Australia's Deakin University in Victoria has entered into a Memorandum of Understanding (MoU) with India's Biocon, for joint multi-disciplinary research focused on biotechnology and biosciences. The areas covered in the MoU include:

- the establishment of the Deakin Research Institute in Bangalore
- Deakin, through its Metabolic Research Unit, will undertake research in the areas of metabolic diseases on behalf of the company.

Australia has a number of world-class medical research institutions including: the Garvan Institute of Medical Research; Walter and Eliza Hall Institute; Australian Stem Cell Centre; John Curtin School of Medical Research; Institute for Molecular Bioscience; Queensland Institute of Medical Research; and Hanson Institute, Institute of Medical and Veterinary Science. The country's proximity to manufacturing nations in Asia and economic ties to China, Singapore, South Korea, India, Japan and Taiwan are beneficial for collaborative R&D and clinical trial purposes.

Together, the Australian and Indian Governments have established the Australia India Strategic Research Fund (AISRF), which is providing \$65 million over eight years from 2006–07. This is Australia's largest bilateral research fund. In May 2011, AISRF announced eight new projects within the Indo–Australian Biotechnology Fund (see the table on the previous page).

OPPORTUNITIES IN AUSTRALIA'S BIOTECH SECTOR

AusBiotech is drawing the attention of Indian investors to opportunities in Australia, as one of the lowest cost business locations in the industrialised world. Australia offers high quality science, capacity for international partnerships and a transparent and efficient regulatory regime.

Australia trains large numbers of Indian nationals in its biotech programs, which may assist with India's challenge in accessing scientists trained in biotechnology and high-tech areas.

In the Asia Pacific region, strong foundations for development are crucial to the continued success of the biotech sector, with strong intellectual property (IP) protection, robust regulatory regimes and support for innovative start-up companies.

COMPLEMENTARY STRENGTHS

India is seen as a market which offers great potential for Australian biotechnology companies. There are complementary strengths in India and Australia; we need to work together to leverage off those strengths for the good of both nations' industries.

AusBiotech CEO, Dr Anna Lavelle, says: 'We have been showcasing the opportunities of companies in both countries for several years and believe that the best is yet to come.'

'The greatest increase in engagement occurs after meeting partner organisations at conferences, like Bangalore Bio or the AusBiotech 2011 conference in Australia, where business matching and personal relationships are central to partnering.'

ABOUT AUSBIOTECH

AusBiotech is Australia's biotechnology industry organisation, representing more than 3000 members across the human health, agricultural, medical device, bioinformatics, environmental and industrial sectors in biotechnology.

Australia is the leading location of biotechnology companies in Asia-Pacific with almost 450 biotechnology companies and 600 medical technology companies.

Bilateral research collaborations combine the strengths of the two countries.

'Australia offers high quality science, capacity for international partnerships and a transparent and efficient regulatory regime.'



Dr Anna Lavelle, Chief Executive Office, AusBiotech

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