



Australian Government

Department of Industry,
Innovation and Science

AUSTRALIA-INDIA STRATEGIC RESEARCH FUND (AISRF) CONSOLIDATED LIST OF FUNDING OUTCOMES 2007–2017

ROUND ONE (funding commenced in 2007)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Synthesis and characterization of doped iron oxide nano-particles for selective removal of dissolved species from contaminated water/hydrometallurgical process solutions	Murdoch University (Professor Pritam Singh)	CSIR Regional Research Laboratory Bhubaneswar (Professor B K Mishra)	\$282,000
Multifunctional zinc oxide films for acoustic and optoelectronics sensing device applications	Australian National University (Professor Chennupati Jagadish)	University of Delhi (Professor K Sreenivas)	\$107,470
Advanced oxidation processes for the degradation of organic pollutants in aqueous environment	University of Melbourne (Associate Professor Muthupandian Ashokkumar)	Madurai Kamarajar University (Dr P Maruthamuthu)	\$374,000
Developing the Swinburne software correlator to process data from the Indian Giant Metre Wave Radio Telescope for enhanced low frequency astrophysics	Swinburne University of Technology (Dr Ramesh Bhat)	TATA Institute of Fundamental Research National Centre for Radio astrophysics (Dr Jayaram Chegalur)	\$20,000

Exploiting crystallographic texture for improved nano-crystalline metals	Deakin University (Associate Professor Matthew Barnett)	Indian Institute of Technology (Professor R Balasubramaniam)	\$328,315
Processing of smart biodegradable polymeric composites	RMIT University (Professor Sati Bhattacharya)	Indian Institute of Technology (Professor Anup Kumar Ghosh)	\$16,300
Developing molecularly targeted polymer nanoparticles for cancer therapeutics and diagnostics	Deakin University (Associate Professor Wei Duan)	Vision Research Foundation (Dr Sankara Krishnakumar)	\$321,219
Eco-geographical and physiological approaches to improve chilling tolerance in Australia and India	CSIRO Plant Industry (Dr Jens Berger)	Panjab University (Dr J S Sandhu)	\$380,000
Meiosis in wheat and rice: are the interactions and regulation of this process conserved between other diverse eukaryote organisms?	University of Adelaide (Dr Jason Able)	University of Delhi (Associate Professor Sanjay Kapoor)	\$322,500
Developing strategic alliances and capability linkages between CSIRO and Indian textile R&D organisations	CSIRO Textile and Fibre Technology (Mr Tim Head)	The Bombay Textile Research Association (Dr A N Desai)	\$10,900
Galaxies in the local volume	CSIRO Australian Telescope National Facility (Dr Baerbel Koribalski)	National Centre for Radio Astrophysics (Professor Jayaram Chengalur)	\$17,650
Research opportunities on effective technologies to increase the performance and adoption of conservation tillage	University of South Australia (Dr Jack Desbiolles)	Tamil Nadu Agricultural University (Professor V J F Kumar)	\$17,100
TOTAL			\$2,197,454.00

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Genetic enhancement of chickpeas (<i>Cicer arietinum</i> L) using a two gene strategy to confer protection against Pod Borer (<i>Helicoverpa armigera</i>)	CSIRO Plant Industry (Dr TJ Higgins)	Assam Agricultural University (Dr B.K. Sarmah)	\$192,500
Enabling technologies for the enzymatic bioremediation of cyclic organochlorine residues	CSIRO Entomology (Dr John Oakeshott)	University of Delhi (Professor Rup Lal)	\$518,637
Biosynthetic silk-hydrogel extracellular matrix analogues for mammalian cell support and drug delivery	University of New South Wales (Dr Laura Poole-Warren)	Indian Institute of Technology Kharagpur (Dr S.C. Kundu)	\$232,572
Milk nutraceuticals: a biotechnology opportunity for Australian and Indian dairy producers	University of Melbourne (Dr Sally Gras)	Jadavpur University (Dr Chiranjib Bhattacharjee)	\$342,328
Establishing a risk assessment chip for the eye disease age related macular degeneration	Centre for Eye Research Australia (Professor Paul Baird)	Hyderabad Eye Research Foundation LV Prasad Eye Institute (Professor D. Balasubramanian)	\$448,000
RNA interference (RNAi) as an antiviral mechanism against hepatopancreatic parvovirus (HPV)	James Cook University (Professor Leigh Owens)	Karnataka Veterinary Animal and Fisheries Science University (Dr Indrani Karunasagar)	\$40,625
A shield and sword approach to control streptococcal infections	Queensland Institute of Medical Research	Indian Institute of Science Bangalore	\$536,000

	(Dr K S Sriprakash)	(Professor M.S Shaila)	
Raman spectroscopy and imaging for understanding molecular processes in live cells	Monash University (Professor Don McNaughton)	National Centre for Biological Sciences (Dr Mrinalini Puranik)	\$15,500
TOTAL			\$2,326,162.00

Targeted Allocations Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
The establishment of a strategic partnership between the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and India's Council of Scientific and Industrial Research (CSIR)	Commonwealth Scientific and Industrial Research Organisation (Ms Kimberley Shrives)	Council of Scientific and Industrial Research	\$3,500,000
Establishment and operation of a joint research academy between Monash University and the Indian Institute of Technology at Bombay	Monash University (Professor Tam Sridhar)	Indian Institute of Technology, Bombay	\$1,500,000
TOTAL			\$5,000,000.00

ROUND TWO (funding commenced in 2008)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Re-establish trace gas monitoring of climate-forcing gases at Cape Rama, India	CSIRO Marine and Atmospheric Research (Dr Paul Fraser)	National Institute of Oceanography (Dr D V Borole)	\$40,500
Development of the Giant Metrewave Radio Telescope for pulsar astrophysics and Square Kilometre Array demonstration	Swinburne University of Technology (Professor Matthew Bailes)	National Centre for Radio Astrophysics Tata Institute of Fundamental Research (Professor Yashwant Gupta)	\$350,000
Fluid flow and lubrication on the nanometre scale	University of South Australia (Dr Rossen Sedev)	Indian Institute of Science (Professor Sanjay Biswas)	\$292,200
Hybrid magnetoelectric nanostructures: optimizing interface coupling for enhanced functionality	University of New South Wales (Dr Nagarajan Valanoor)	National Chemical Laboratories (Dr Satishchandra B. Ogale)	\$324,500
Identification of molecular markers closely linked with stem rust resistance genes in wheat	The University of Sydney (Dr Harbans Bariana)	National Chemical Laboratories (Dr Vidya Gupta)	\$310,477
Catalytic conversion of carbohydrates as renewable raw materials to key platform chemicals using novel metal supported mesoporous materials	University of Queensland (Professor Max Lu)	National Centre for Catalysis Research IIT Madras Chennai (Dr P. Selvam)	\$326,568
Technical and economic assessment of improved Solar Photovoltaic Linear Concentrators and determination of market potential in India	Australian National University (Dr Andrew Blakers)	Australian National University (Dr L. Suganthi)	\$382,021

TOTAL			\$2,026,266.00
--------------	--	--	-----------------------

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Esterified starch and oral rehydration solution as a treatment for acute infectious diarrhoea	Commonwealth Scientific and Industrial Research Organisation (Dr Julie Clarke)	Christian Medical College & Hospital (Dr B.S. Ramakrishna)	\$305,752
Sustainability of pyramided Bt genes for insect control in crop plants	The University of Melbourne (Associate Professor Philip Batterham)	TERI University (Dr Vibha Dhawan)	\$400,000
Developing a global blueprint for zero PCG: towards a complete understanding of the molecular basis of primary congenital glaucoma	The University of Western Australia (Professor Luba Kalaydjieva)	Indian Statistical Institute (Dr P.P. Majumder)	\$125,500
Endogenous adult cardiac stem cells: genome wide analysis of multipotency and differentiation in homeostasis and regeneration	The Victor Chang Cardiac Research Institute (Professor Richard Harvey)	Centre for Cellular and Molecular Biology (Dr Jyotsna Dhawan)	\$400,000
An advanced surface for the cell therapy of limbal epithelium for ocular surface disease: proof of concept and clinical trials	Centre for Eye Research Australia (Dr Mark Daniell)	Hyderabad Eye Research Foundation (Dr Yashoda Ghanekar)	\$400,000
Bioremediation of oil-contaminated marine and freshwater environments	Flinders University (Professor Andrew Ball)	TERI (Dr Banwari Lal)	\$400,000
Development and optimization of combined plant/microbe technologies for bioremediation	The University of Sydney	Institute of Advanced Study in Science & Technology	\$15,000

of soils contaminated with hydrocarbons and heavy metals (workshop)	(Associate Professor Balwant Singh)	(Dr S C Bordoloi)	
Plant nutraceuticals and bioactive molecules: a growth opportunity for the pharmaceutical industry in Australia and India (workshop)	The University of Sydney (Mr Stephen Brancatisano)	JSS College of Pharmacy (Dr M J Nanjan)	\$20,579
TOTAL			\$2,066,831.00

Targeted Allocations Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Workshop: 'Nanocomposites' for electronics, light yet strong engineering applications, coatings, fuel cell and clean energy use	University of New South Wales (Dr Leigh Schwartzkoff)	Saha Institute of Nuclear Physics (Professor M K Sanyal)	\$50,000
A 3-year top-down collaborative novel research proposal on nanocomposites for electronics, light yet strong engineering applications, coatings, fuel cell and clean energy use	University of New South Wales (Associate Professor Sri Bandyopadhyay)	Saha Institute of Nuclear Physics	\$720,000
Protecting critical infrastructure from denial of service attacks: tools, technology and policy	Queensland University of Technology (Professor Ed Dawson)	Indian Institute of Technology Madras and Society for Electronic Transaction and Security (Professor S V Raghvan)	\$2,250,000
Biomedical devices and implants workshop 2009	Australian Academy of Technological Sciences and Engineering (Dr John Ramshaw)	All India Institute of Medical Sciences	\$55,000

TOTAL			\$3,125,000.00
--------------	--	--	-----------------------

ROUND THREE (funding commenced in 2009)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Does climate change drive evolution?	Griffith University (Professor David Lambert)	Environment Protection Training and Research Institute (Dr Siva Kumar Swaminathan)	\$194,635
Gas in galaxies in the distant past	Australian National University (Professor Frank Briggs)	National Centre for Radio Astrophysics (Professor Jayaram N. Chengalur)	\$236,307
All-optical actuation and interrogation of MEMS and NEMS resonant mode sensors	The University of Western Australia (Professor John Dell)	Indian Institute of Science (Professor Rudra Pratap)	\$350,000
The impact of noise in quantum electronics	The University of New South Wales (Professor Michelle Simmons)	Indian Institute of Science (Dr Arindam Ghosh)	\$260,000
Long-term system evolution of the Krishna-Godavari Basin and its hinterland in eastern India: a partnership for enhancing offshore hydrocarbon exploration success	The University of Melbourne (Dr Andrew Gleadow)	National Geophysical Research Institute (Dr Devender Kumar)	\$330,000
Impact of rainwater harvesting on the regional hydrological balance in the Arawali foothills region of India: Combining catchment	The University of Sydney (Dr Willem Vervoort)	Water Technology Centre at IARI (Dr Anil Kumar Mishra)	\$137,871
Establishing Australian-Indian collaboration on gravitational wave	The University of Western Australia	Raman Research Institute	\$30,000

astronomy	(Professor David Blair)	(Professor B. R. Iyer)	
Managing change in soil moisture and agricultural productivity under a global warming scenario using a catchment scale climate change assessment model	The University of New South Wales (Dr Ashish Sharma)	Indian Institute of Science (Dr D Nagesh Kumar)	\$208,500
The thermal evolution of peninsula India: past behaviours and future potential	The University of Adelaide (Dr Alan Collins)	National Geophysical Research Institute (Dr T.R.K. Chetty)	\$350,000
TOTAL			\$2,097,313.00

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Mechanisms of Chikungunya virus disease: mouse model, virulent and fitness determinants and the development of novel therapeutics	University of Canberra (Professor Suresh Mahalingam)	All Indian Institute of Medical Sciences (Professor Shobha Broor)	\$400,000
Comparative genomics of economically important nematode pathogens leading to transgenic nematode resistance in wheat	Murdoch University (Professor Michael Jones)	Indian Agricultural Research Institute (Dr Umarao)	\$400,000
Utilizing novel medical techniques/ technologies and devices to enhance our understanding of common health problems (atrial arrhythmias and stroke) associated with rheumatic heart disease	The University of Adelaide (Professor Prashanthan Sanders)	Christian Medical College (Professor Sunil T. Chandy)	\$400,000
Development of blood-stage vaccines for Plasmodium falciparum malaria based on the EBA and PfRH proteins	Walter and Eliza Hall Institute of Medical Research (Dr James Beeson)	International Centre for Genetic Engineering and Biotechnology (Dr Chetan Chitnis)	\$400,000
Developing biodegradable magnesium alloys for implant materials	Deakin University (Dr Cui'e Wen)	Centre for Cellular and Molecular Biology (Dr Gopal Pande)	\$225,000
Anti-tumour and anti-parasitic and anti-bacterial activities of neem and Fe/Se-saturated bovine and immobilized buffalo lactoferrin: a potential alternative medicine	Deakin University (Dr Jagat Kanwar)	Postgraduate Institute of Medical Education and Research (Dr R. Sehgal)	\$280,000
TOTAL			\$2,105,000.00

ROUND FOUR (funding commenced in 2010)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
The study of microwave losses in ferrite thin films for meta materials applications	The University of Western Australia (Professor Robert Stamps)	Indian Institute of Technology (Professor Rangan Banerjee)	\$232,000
Enabling new science with the Murchison Widefield Array, an international low frequency pathfinder for the Square Kilometre Array	Curtin University of Technology (Professor Steven Tingay)	Raman Research Institute (Associate Professor Shiv Sethi)	\$380,362
Smart bombing of cancer stem cells using aptamer-guided nanoliposomal siRNA	Deakin University (Professor Wei Duan)	Indian Institute of Science (Professor Santanu Bhattacharya)	\$400,000
Exposing the gold potential of the Neoproterozoic "Himalaya" of the Dharwar Craton in southern India	Curtin University of Technology (Professor Neal McNaughton)	National Geophysical Research Institute (Dr Srinivasa Sarma Drona)	\$300,000
Flexible carbonaceous hybrid membranes for separation applications	Monash University (Professor Huanting Wang)	Indian Institute of Technology (Professor A.K. Suresh)	\$298,954
A novel way to reduce Platinum metal loadings in a carbon nanocomposite electrode to produce low cost-high efficiency commercially viable Polymer Electrolyte Membrane (PEM) fuel cells	Queensland University of Technology (Dr Andrew Dicks)	National Physical Laboratory (Dr Rakesh Mathur)	\$296,956
Renewable energy from biogas: technology development	Monash University	Indian Institute of Petroleum	\$270,180

	(Professor Paul Webley)	(Mr Bal Mukund Shukla)	
Design and implementation of a content distribution architecture for remote and rural areas	National ICT Australia Limited (Dr Anirban Mahanti)	Indian Institute of Technology (Dr Aaditeshwar Seth)	\$299,577
From the Magellanic clouds to the Milky Way: a new understanding of galaxy structure and interactions based on kinematics of 5000 stars	University of Tasmania (Dr Andrew Cole)	Indian Institute of Astrophysics (Dr Annapurni Subramaniam)	\$257,360
TOTAL			\$2,735,389.00

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Approaches to develop an effective HCV vaccine	Women's and Children's Health Research Institute (Professor Eric Gowans)	Indian Institute of Science (Dr Saumitra Das)	\$300,000
Identification of diagnostic and prognostic biomarkers to improve management of diabetic ulcers	Queensland University of Technology (Professor Zee Upton)	Manipal University (Dr Vinod Bhat)	\$299,917
Molecular recognition between alkane hydroxylase and rubredoxin in alkane-degrading bacteria	Monash University (Associate Professor Anna Roujeinikova)	Tata Institute of Fundamental Research (Dr Jayant Kayarkar)	\$297,838
Extraction and purification of sorghum seed protein for delayed delivery of bioactives	Curtin University of Technology (Dr Vishnu Pareek)	Institute of Chemical Technology (Professor Arvind Lali)	\$299,673
Solar bio-fuel and carbon sequestration with cyanobacteria: role of genetic networks	Monash University (Dr Madhusudan Chetty)	Indian Institute of Technology Mumbai (Professor Pramod Wangikar)	\$296,461
Rational development and evaluation of an effective vaccine for the prevention of Staphylococcal Mastitis in bovines using mouse mastitis as a model system	Curtin University of Technology (Associate Professor Trilochan Mukkur)	Bharat Biotech Foundation (Dr Nagendra Hegde)	\$300,000
Molecular approaches for sustaining crop productivity under abiotic stress conditions	The University of Melbourne	International Centre for Genetic Engineering and	\$300,000

	(Professor Mohan Singh)	Biotechnology (Dr Narendra Tuteja)	
Engineering novel disease resistance in wheat and rice by silencing disease susceptibility genes	CSIRO Plant Industry (Dr John Manners)	Tamil Nadu Agricultural University (Dr R Samiyappan)	\$300,000
TOTAL			\$2,393,889.00

Targeted Allocations Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Remote sensing of marine ecosystems workshop	Commonwealth Scientific and Industrial Research Organisation (Professor Arnold Dekker)	Indian Space Research Organisation	\$70,000
Indo-Australian workshop on solar energy	Australian National University (Dr Igor Skryabin)	Amity University	\$50,000
Australia-India nanotechnology workshop	Australian National University (Professor Chennupati Jagadish)	Sana Institute of Nuclear Physics	\$50,000
TOTAL			\$170,000.00

ROUND FIVE (funding commenced in 2011)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Preparing for climate change on marine systems in Australia and India	University of Tasmania (Associate Professor Stewart Frusher)	Central Marine Fisheries Research Institute (Dr G Syda Rao)	\$78,930
The changing risks posed by petroleum hydrocarbons in groundwater environments: multiphase fluid dynamics coupled to multispecies biodegradation	CSIRO (Dr Greg Davis)	Indian Institute of Technology Madras (Dr Indumathi Nambi)	\$400,000
Hybrid organometallic-coordination complex materials for nonlinear optics	Australian National University (Professor Mark Humphrey)	Raman Research Institute (Mr K. Krishnamaraju)	\$299,038
Towards a unified East Gondwanaland reconstruction and its implications for Himalayan Orogeny	University of Sydney (Professor Dietmar Muller)	National Institute of Oceanography (Dr Yatheesh Vadakkeyakath)	\$295,766
Characterization of the seismic cycle in the central Himalayan seismic gap using precise U-Th dating of deformed speleothems	University of Melbourne (Professor Michael Sandiford)	Indian Institute of Science (Professor Kusala Rajendran)	\$225,536
Energy conversion reactions: fine tuning of electrocatalytic activity through surface manipulation guided by in situ spectroscopic and microscopic	Monash University (Professor Alan Bond)	CSIR-Central Electrochemical Research Institute	\$299,439

studies		(Dr Kanala Lakshminarasimha Phani)	
New generation molecular magnetic materials: experiment and theory	Monash University (Professor Keith Murray)	Indian Institute of Technology Bombay (Dr Gopalan Rajaraman)	\$300,000
Securing chickpea productivity under contemporary abiotic stresses: improvement of podding and seed-filling under heat, drought and salinity	University of Western Australia (Professor Timothy Colmer)	International Crops Research Institute for the Semi-Arid Tropics (Dr Vincent Vadez)	\$299,837
Highwall mining design and development of norms for Indian conditions	CSIRO (Dr Shivakumar Karekal)	Central Institute of Mining and Fuel Research (Dr John Loui)	\$286,292
Improving our ability to predict plant distributions under changed climates: incorporating dispersal into predictions of species and community distributions	CSIRO (Dr David Westcott)	Centre for Ecological Sciences - Indian Institute of Science (Professor Raman Sukumar)	\$288,342
TOTAL			\$2,773,188

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Development of selenazole drugs as a novel class of anti-cancer agents targeting the immune regulatory enzyme indoleamine 2,3-dioxygenase	University of New South Wales (Dr Shane Thomas)	Indian Institute of Science (A/Professor Govindasamy Mugesh)	\$300,000
Structure-based design of malaria vaccines: application to the intrinsically disordered antigen MSP2	Monash University (Professor Raymond Norton)	Indian Institute of Science (Dr Hanudatta Sastry Atreya)	\$299,340
Sustainable prawn aquaculture by delivering interfering RNA to knockdown <i>Penaeus merguensis</i> densovirus and infectious hypodermal and hematopoietic necrosis virus	James Cook University (Associate Professor Leigh Owens)	Karnataka Veterinary, Animal and Fisheries Sciences University (Professor Indrani Karunasagar)	\$294,099
Engineering a novel bioreactor and cell sorter for pluripotent stem Cell culture	Monash University (Dr Paul Verma)	Indian Institute of Technology Bombay (Professor Rangan Banerjee)	\$299,539
Novel marine-derived lipases and processing methods for the production of omega-3 concentrates for functional foods, pharmaceuticals and nutraceuticals.	Deakin University (Professor Colin Barrow)	Centre for Cellular and Molecular Biology (Dr Mercy Joseph)	\$298,755
Discovery and manipulation of miRNAs involved in high-temperature tolerance in crop plants	University of Queensland (Associate Professor Bernie Carroll)	International Centre for Genetic Engineering and Biotechnology (Dr Sunil Mukherjee)	\$299,700
Therapeutic approaches to augmentation of adult cardiac stem cells	Victor Chang Cardiac Research Institute (Professor Richard Harvey)	Institute for Stem Cell Biology and Regenerative Medicine (Professor K. Vijay)	\$400,000

		Raghavan)	
Two day workshop to plan a programme of collaborative laboratory and clinical research on the role of bovine lactoferrin to prevent prematurity, neonatal sepsis and mortality	University of Sydney (Professor William Tarnow-Mordi)	Postgraduate Institute of Medical Education and Research Chandigarh (Adjunct Professor Praveen Kumar)	\$11,200
TOTAL			\$2,202,633

ROUND SIX (funding commenced in 2012)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Topological Defects In Non-Collinear Multiferroics: A Nanodomain Approach To Multifunctionality	The University of New South Wales (Dr Nagarajan Valanoor)	The National Chemical Laboratories (Professor Satish Ogale)	\$300,000
Magnetron Sputtering of Nanolaminates with Materials Designed and Engineered Properties	Swinburne University of Technology (Professor Cuie Wen)	Banaras Hindu University (Professor K. P. Singh)	\$400,00
A new route to ultra-high quality hole-based nanoelectronic devices	The University of New South Wales (Professor Alex Hamilton)	Indian Institute of Technology Mumbai (Associate Professor Kanti Das Gupta)	\$295,959
Development of innovative spent wash treatment systems and resource recovery options for distillery applications	University of New South Wales (A/Professor Gregory Leslie)	Indian Institute of Technology Roorkee (Professor Himanshu Joshi)	\$280,000
Nanocomposite Material for High-power Lithium Battery Cathodes	University of Western Sydney (Dr Adriyan Milev)	Indian Institute of Technology Madras (Professor Parasuraman Selvam)	\$280,000
Functionalised Hierarchical Nanocomposites for Synthetic Fuels Production	CSIRO (Dr Ken Chiang)	Indian Institute of Petroleum (Dr Nagabharta Viswanadham)	\$280,000
Novel Approach for Processing	The University of New	Institute of Minerals	\$365,00

Hazardous Electronic Waste	South Wales (Professor Veena Sahajwalla)	and Materials Technology (Professor Barada Kanta Mishra)	
Safe and sustainable use of arsenic contaminated aquifers in the upper Gangetic plain: establishing a multi-disciplinary Australian-Indian collaboration	Southern Cross University (Dr Scott Johnston)	Jawaharlal Nehru University (Professor AL Ramanathan)	\$23,500
Workshops on Himalayan Gneiss Domes	The Australian National University (Professor Gordon Lister)	University of Kashmir (Professor Talat Ahmad)	\$40,000
Optimization Techniques for Human Language Technology	Macquarie University (Dr Diego Molla Aliod)	Indian Institute of Technology Patna (Dr Asif Ekbal)	\$23,000
Utilisation of leading edge ICT to enhance Australian and Indian ground water and land resources under climate change scenarios	Edith Cowan University (Dr Marcia Taylor)	Indian Institute of Technology Mumbai (Professor Adinarayana Jagarlapudi)	\$22,220
Workshop on Techno Economical Challenges of Integrating Renewable Energy Sources on Power System Operations and Control	Queensland Institute of Technology (QUT) (Mr Michael McArdle)	Indian Institute of Technology Delhi (Associate Professor Sukumar Mishra)	TBA
Spatially Enabled Nations: Workshop on a meta-integrative framework towards improving disaster management practices in India and Australia	The University of Melbourne (Associate Professor Nelson Lam)	Madras University (Dr Srikanth Venkatesan)	\$34,000
TOTAL			\$2,343,679

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Novel Cell Surface Markers for Endodermal Stem and Progenitor Cells in Health and Disease	University of Melbourne (Professor Martin Pera)	Institute for Stem Cell Biology and Regenerative Medicine (Dr Kouichi Hasegawa)	\$297,000
An Insertional Mutagenesis System to Identify Epigenetic Factors that Control Embryonic Stem Cell Differentiation	The Australian National University (Dr Danny Rangasamy)	National Center for Cell Science (Dr Nibedita Leneke)	\$299,818
Molecular Pathways Regulating Ovarian Cancer Cell Plasticity and Stem Cell Properties	Queensland University of Technology (Professor Judith Clements)	National Center for Cell Sciences (Dr Sharmila Bapat)	\$300,000
Novel Vaccine Delivery Systems that Elicit Robust and Enduring T Cell Memory Responses: Alternatives to BCG Vaccination in Tuberculosis Endemic Regions	The University of Melbourne (Professor David Jackson)	Immunology Laboratory Institute of Microbial Technology Chandigarh (Dr Javed Agrewala)	\$400,000
Designing combination immunotherapy and drug treatment to control chronic infectious diseases.	Queensland Institute of Medical Research (Dr Christian Engwerda)	Banaras Hindu University (Professor Shyam Sundar)	\$300,000
Locked nucleic acid modified aptamer-siRNA chimeric conjugates for improved chemosensitivity and eradication of cancer stem cells	Deakin University (Assoc Prof Jagat Kanwar)	Vision Research Foundation Sankara Nethralaya (Professor Krishna Kumar)	\$296,030
Workshop for the strategic development of Muricidae natural medicines	Southern Cross University (Dr Kirsten Benkendorff)	Central Marine Fisheries Research Institute (CMFRI) ICAR-Govt. of India (Dr K Vijayan)	\$34,115
TOTAL			\$1,926,963

GRAND CHALLENGE – ROUND ONE (funding commenced in 2012)

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Ensuring food security: harnessing science to protect our grain harvest from insect threats	University of Queensland (Professor Gimme Walter)	Tamil Nadu Agricultural University (Dr Chandrasekaran Subramaniam)	\$2,984,247
Crop plants which remove their own major biotic constraints	University of Melbourne (Adjunct Professor Derek Russell)	International Centre for Genetic Engineering and Biotechnology (Dr Raj Kamal Bhatnagar)	\$2,925,533
Genomic Approaches for Stress Tolerant Chickpea	Australian Centre for Plant Functional Genomics (Dr Tim Sutton)	International Crops Research Institute for the Semi-Arid Tropics (Dr Rajeev Varshney)	\$2,976,123
TOTAL			\$8,885,903

GRAND CHALLENGE – ROUND TWO (funding commenced in 2013)

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
A point-of-care diagnostic tool for tuberculosis	CSIRO (Dr Graeme Woodrow)	Institute of Microbial Technology (Dr Ashwani Kumar)	\$2,308,241
Reducing the burden of injury in India and Australia through development and piloting of improved systems of care	Monash University (Professor Russell Gruen)	All India Institute of Medical Sciences (Professor Mahesh Chandra Misra)	\$1,913,832
Mini DME: A custom designed solution to bring stranded gas to the energy markets	CSIRO (Dr Jim Patel)	CSIR Indian Institute of Petroleum (Dr Ankur Bordoloi)	\$2,944,300
Integrated technologies for economically sustainable bio-based energy	Queensland University of Technology (Professor William Doherty)	Institute of Chemical Technology (Professor Arvind Lali)	\$2,978,749
TOTAL			\$10,145,122

ROUND SEVEN (funding commenced in 2013)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Inter-dependencies of deep crustal and surficial geological processes during continental collision	University of Sydney (Professor Jonathan Aitchison)	University of Kashmir (Professor Talat Ahmad)	\$284,500
Building triangulations for fast topological computing	University of Queensland (Associate Professor Benjamin Burton)	Indian Institute of Science (Professor Basudeb Datta)	\$295,972
The Role of Noise in Silicon Based Quantum Computing	University of New South Wales (Professor Michelle Simmons)	Indian Institute of Science (Associate Professor Arindam Ghosh)	\$300,000
What will the future be? Projecting environmental change in a warming world for semi-arid landscapes	University of New South Wales (Professor Ashish Sharma)	Indian Institute of Science (Professor Sekhar Muddu)	\$297,998
Hydrodynamic characteristics of porous barriers under nonlinear shallow water waves	Monash University (Professor Murray Rudman)	Indian Institute of Technology Bombay (Dr Balaji Ramakrishnan)	\$265,742
Characterising the changing Indian Ocean's biogeochemistry and ecology using revolutionary new robotic tools	CSIRO (Dr Nick Hardman-Mountford)	National Institute of Oceanography (Dr Wajih Naqvi)	\$400,000

Innovative Solutions for Deployment of Big Data and Disaster Management Applications on Clouds	CSIRO (Dr Rajiv Ranjan)	Tata Institute of Fundamental Research (Professor R K Shyamasundar)	\$400,000
Planar High-Gain Antennas Based on Electromagnetic Band Gap Concept	Macquarie University (Professor Karu Esselle)	Indian Institute of Technology, Kanpur (Professor Animesh Biswas)	\$394,062
Workshop on Reproductive Biotechnologies for Agricultural Research	South Australian Research and Development Institute (Professor Paul Verma)	National Institute of Animal Biotechnology (Dr Satish Kumar)	\$42,450
Australia-India Workshop on Smart Functional Nanomaterials	University of Melbourne (Dr David Jones)	Jawaharlal Nehru Centre for Advanced Scientific Research (Professor Giridhar U Kulkarni)	\$34,540
Indo-Australian Workshop on Modelling Large-Scale Linked Data	University of New South Wales (Professor Arcot Sowmya)	Indraprastha Institute of Information Technology, Delhi (Professor Ashwin Srinivasan)	\$27,400
Bio-nanotechnology applications to improve plant productivity and ecosystems services	Deakin University (Professor Tes Toop)	The Energy and Resources Institute (Professor Alok Adholeya)	\$56,280
Bio-Jet Fuel – A Key to Future Green and Sustainable Aviation	University of Melbourne (Dr Gregory Martin)	CSIR-Indian Institute of Petroleum, Dehradun (Dr Anil K Sinha)	\$27,720
TOTAL			\$2,826,664

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Antibody-dependent cellular cytotoxicity (ADCC): a new frontier in vaccine research	University of Melbourne (Professor Stephen Kent)	National AIDS Research Institute (Dr Madhuri Thakar)	\$400,000
Nanoengineered autoantigens to prevent and treat autoimmunity	Monash University (Professor Claude Bernard)	Amrita Institute of Medical Sciences and Research Centre (Professor Manzoor Koyakutty)	\$291,960
Creating a new Brassica crop species for food and biofuel	University of Queensland (Dr Annaliese Mason)	Punjab Agricultural University (Professor Surinder Banga)	\$299,688
The immunomodulatory and angiogenic role of bone marrow-derived endothelial progenitor cells in chronic liver disease	Centenary Institute of Cancer Medicine & Cell Biology (Dr Devanshi Seth)	Institute of Liver and Biliary Sciences (Associate Professor Nirupma Trehanpati)	\$300,000
Endothelial progenitor cells (EPC) and sphingosine-1-phosphate (S1P) as immunomodulators and immunotherapeutic targets during DENV infection	Flinders University (Dr Jillian Carr)	Christian Medical College, Vellore (Dr Asha Mary Abraham)	\$295,621
Novel immunomodulatory agents for type II diabetes through targeting the NLRP3 inflammasome signaling cascade	University of Queensland (Professor Matthew Cooper)	Indian Institute of Chemical Technology (Dr V Jayathirtha Rao)	\$282,365
Comparative transcriptomics of rice and resurrection plants, and exploitation of novel genes for dehydration tolerance for improvement of drought tolerance in rice	Queensland University of Technology (Professor Sagadevan Mundree)	International Centre for Genetic Engineering and Biotechnology (Dr V Siva Reddy)	\$300,000

Workshop on multi-drug resistant Pseudomonas aeruginosa and ocular infections	University of New South Wales (Professor Mark Willcox)	LV Prasad Eye Institute (Dr Prashant Garg)	\$5,065
Collaborative workshop on MEMS and its applications in health care	Deakin University (Professor Lingxue Kong)	University of Mumbai (Professor Sundar Manoharan)	\$31,000
Joint Australian/Indian Workshop on Epithelial Development, Function and Disease - New Frontiers and Therapies	Queensland University of Technology (Professor Zee Upton)	Manipal University (Professor K Satyamoorthy)	\$32,500
TOTAL			\$2,238,199

ROUND EIGHT (funding commenced in 2015)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Tailoring plant protease inhibitors for control of the crop pest <i>Helicoverpa armigera</i>	University of Queensland (Professor Glenn King)	Tata Institute of Fundamental Research (Professor Kandala Chary)	\$199,496
Value Adding to Agriculture Waste by Catalytic Gasification to Bio-Fuel Production	University of Queensland (Dr Jorge Beltramini)	Indian Institute of Chemical Technology (Professor Komandur V R Chary)	\$199,052
Harnessing the plant-microbiome for drought tolerance and improved wheat productivity in Australian and Indian environments	Flinders University of South Australia (Professor Christopher Franco)	International Centre for Genetic Engineering and Biotechnology (Dr Narendra Tuteja)	\$200,000
Mining alleles for heat tolerance of wheat in Australian and Indian environments for development of heat resilient cultivars	Australian Centre for Plant Functional Genomics (Dr Delphine Fleury)	Punjab Agricultural University (Dr Kuldeep Singh)	\$199,468
Sustainable water management system for water desalination and agricultural irrigation independent of electric grid	RMIT University (Dr Abhijit Date)	University of Pune (Professor Subhash Ghaisas)	\$132,104
Biomonitoring of pesticides in rivers and streams vis-a-vis ecological services and functions	University of Canberra (Dr Ben Kefford)	Assam University (Professor Abhik Gupta)	\$126,401

Identification and management of sewage effluent discharges to keep our rivers healthy: Comparative investigations in India and South Australia	CSIRO (Dr Anupama Kumar)	CSIR Indian Institute of Toxicological Research (Dr Kailash Gupta)	\$200,000
TOTAL			\$1,256,521

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Preclinical trials of a quadrivalent hepatitis C virus vaccine	University of Adelaide (Professor Eric Gowans)	Indian Institute of Science (Prof Saumitra Das)	\$200,000
Integrated biorefinery for production of sorghum seed protein	Curtin University of Technology (Dr Ranjeet Utikar)	Institute of Chemical Technology, Mumbai (Dr Sandeep Kale)	\$200,000
Comparative genomics of important nematode pathogens leading to transgenic nematode resistance in wheat and sugarcane (Follow on project)	Murdoch University (Professor Michael Jones)	Indian Agricultural Research Institute (Dr Uma Rao)	\$200,000
TOTAL			\$600,000

ROUND NINE (funding commenced in 2016)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Hotwiring microbial communities for enhanced unconventional gas production	University of New South Wales (Associate Professor Michael Manefield)	The Energy and Resources Institute (Professor Banwari Lal)	\$967,192
New materials for large scale, high stability, high energy density batteries: from material design to prototype development	Deakin University (Professor Maria Forsyth)	Indian Institute of Science (Associate Professor Aninda Bhattacharyya)	\$999,925
TOTAL			\$1,967,117

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Genetic control and genomic selection for important traits in sugarcane, and comparison of elite Indian and Australian germplasm	Sugar Research Australia Limited (Dr Prakash Lakshmanan)	Sugarcane Breeding Institute (Dr R. Manimekalai)	\$644,332
Developing salt tolerant rice for food security in India and Australia	University of Tasmania (Professor Sergey Shabala)	M. S. Swaminathan Research Foundation (Dr Ajay Kumar)	\$997,500
Deploying biotechnology-based decision-making tools in post-harvest grain pest management to enhance food security and market access	Department of Agriculture and Fisheries, Queensland Government (Dr Manoj Navak)	Tamil Nadu Agricultural University (Professor Mohankumar Subbarayulu)	\$999,699

Improving Chickpea Adaptation to Environmental Challenges in Australia and India	South Australian Research and Development Institute (Dr Tim Sutton)	International Crops Research Institute for the Semi-Arid Tropics (Dr Rajeev Varshney)	\$998,749
TOTAL			\$3,640,280

ROUND TEN (funding commenced in 2017)

Indo-Australian S&T Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Large Area Opto-Electronics (LAOE) for Australia and India	The University of Queensland (Dr Ebinazar Namdas)	CSIR-National Institute for Interdisciplinary Science and Technology (A. Ajayaghosh)	\$1,000,000
Enhancing Dairy Milk Shelf Life with PCM Thermal Energy Storage and Renewable Energy	University of South Australia (Professor Frank Bruno)	Anand Agricultural University (Sunil Patel)	\$973,944
Advanced manufacturing of new high entropy alloys	Deakin University (Dr Matthew Barnett)	Indian Institute of Technology Madras (B.S. Murty)	\$995,968
TOTAL			\$2,969,912

Indo-Australian Biotechnology Fund

Project Title	Australian Organisation (Chief Investigator)	Indian Organisation (Chief Investigator)	Australian AISRF Funding Awarded (GST exclusive)
Eliminating Visceral Leishmaniasis - An Australian-Indian Partnership	Monash University (Professor Jonathan Baell)	Indian Institute of Chemical Biology (Dr Arindam Talukdar)	\$999,894
Novel Imaging Diagnostics for Alzheimer's Disease	The Florey Institute of Neuroscience and Mental Health (Professor Ashley Bush)	National Brain Research Centre (Dr Pravat K Mandal)	\$999,812

An advanced low cost minimally invasive cardiac assist device	BioQ Devices Pty Ltd (Dr Peter Walsh)	Frontier Lifelong Hospital (Dr K.M. Cherian)	\$995,550
New class of intelligent robotic imaging system for keyhole surgeries	Queensland University of Technology (Professor Ross Crawford)	Indian Institute of Technology Madras (Dr Mohansankar Sivaprakasam)	\$995,977
TOTAL			\$3,991,233