

## India Partnering Awards

### **BBSRC's support for facilitating international collaboration with India**

BBSRC's International Relations Unit (IRU) seeks to enhance BBSRC's influence and involvement at the forefront of international science, through taking advantage of international funding opportunities and capitalising on international links, both at policy and scientific levels.

The India Partnering Awards have been established by BBSRC to specifically support UK-India collaborative activity. India Partnering Awards provide resources to leading BBSRC-funded researchers and groups, so that they have the resources to establish long-term relationships with Indian scientists in areas of research that are of direct relevance to BBSRC's current scientific strategy.

The first annual call for the India Partnering Awards scheme was announced by BBSRC in 2006. Awards of up to £30,000, covering a four-year period, have typically been awarded. Since 2010, BBSRC has funded 23 India Partnering Awards, providing a financial contribution of approximately £600K.

Funding from India Partnering Awards can be used to support exchanges of personnel and to access facilities and workshops, although no prescribed mechanisms have been set concerning how the award should be used. However, priority is given to proposals that aim to provide exchange opportunities to early career researchers and access facilities and expertise not currently available in the UK.

The expectation is that India Partnering Awards will enable researchers to establish collaborations that will lead to the submission of joint research proposals, either through UKRI or other funding organisations in the future.

A list of proposals that have been awarded by BBSRC since 2006 is shown below.

### **Contacts**

Any queries regarding the India Partnering Awards scheme should be addressed to:

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**PREVIOUS AWARDS 2006 - 2019****2019 Call****India Link: Selective interactions between G protein-coupled receptors and conformationally selective arrestin variants**

£15,400

UK lead partner	Professor Graeme Milligan, University of Glasgow
India partner	Arun Shukla, Indian Institute of Technology Kanpur

**2018 Call****India Partnering Award: ICRISAT-Rothamsted Partnership for Enabling Gene Editing in Pulses**

£24,100

UK lead partner	Dr Vladimir Nekrasov, Department of Plant Sciences, Rothamsted Research
India partner	Dr Pooja Bhatnagar-Mathur, Department of Grain legumes (RP-GL), ICRISAT India

**India Partnering Award: Exploiting the microbial diversity of the Sundarbans mangrove delta to tackle infectious disease**

£19,600

UK lead partner	Dr Apoorva Bhatt, School of Biosciences, University of Birmingham
India partner	Professor Maitree Bhattacharyya, Department of Biochemistry, University of Calcutta

**2017 Call****India: Plant science for food security and nutrition**

£30,000

UK lead partner	Professor Alison Baker, Institute of Molecular & Cellular Biology, University of Leeds
Indian partner	Dr Rajeev Varshney, Department of Biotechnology (GT-BT), ICRISAT India

**2016 Call****Understanding the emergence of variant infectious bronchitis virus in chickens in UK and India: shared control strategies**

£34,650

UK lead partner	Professor Matthew Baylis, Institute of Infection and Global Health, University of Liverpool
Indian partner	Dr Gowthaman Vasudevan, Tamil Nadu Veterinary and Animal Sci University Dr Madhuri Subbiah, Department of Biotechnology, National Institute of

	Animal Biotechnology
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**India partnering award: Sustainable data archiving and dissemination strategy to support data driven biology**

£29,953

UK lead partner	Dr Sameer Velankar, Protein Data Bank Europe, EMBL - European Bioinformatics Institute
Indian partner	Professor Manju Bansal, Molecular Biophysics Unit, Indian Institute of Science Dr Debasis Mohanty, National Institute of Immunology India

**Partnership to develop compartmentalisation technology**

£30,000

UK lead partner	Professor Martin Warren, School of Biosciences, University of Kent
Indian partner	Professor Annama Anil Odaneth, Institute of Chemical Technology

**Studying circuit function and behaviour in Drosophila following disruptions in developmental remodeling**

£19,825

UK lead partner	Dr Darren Williams, Department of Developmental Neurobiology, King's College London
Indian partner	Dr Sanjay Sane, TIFR, National Centre for Biological Sciences

**2015 Call**

No India Partnering Awards were funded during the 2015 International Partnering Awards call.

**2014 Call**

**India Partnering Award: Health and welfare consequences of maladaptation of high-producing cross-bred dairy cattle to environmental stressors in India**

£29,300

UK lead partner	John Tarlton, Department of Clinical Veterinary Science, University of Bristol
Indian partner	Dr T Sethumadhavan, Directorate of Entrepreneurship, Kerala Veterinary and Animal Sciences University

**2013 Call**

**Post-transcriptional control of adult stem cell pluripotency**

£17,750

UK lead partner	Dr Aziz Aboobaker, Department of Zoology, University of Oxford
Indian partner	Dr Dasaradhi Palakodeti, TAS, inStem (Institute for Stem Cell Biology)

**India Partnering Award: Collaboration on Diagnosis of Emerging Viruses (CoDEV)**

£27,079

UK lead partner	Dr Janet Daly, School of Veterinary Medicine and Science, University of Nottingham
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## BBSRC INDIA PARTNERING AWARDS 2006 - 2019

<b>UK partner</b>	Dr Nigel Temperton, Medway School of Pharmacy, University of Kent
Indian partner	Dr K. Kumanan, Tamil Nadu Veterinary and Animal Sciences University Dr Madhuri Subbiah, National Institute Animal Biotechnology

### **TRansnational Industrial Biotechnology: UTilization of Extremophiles through academic-industry Partnership (TRIBUTE)**

£29,600

UK lead partner	Dr Joseph Gallagher, IBERS, Aberystwyth University
Indian partner	Dr Anil Puniya, Dairy Microbiology Division, National Dairy Research Institute Dr Kumar Bijender, University of Jammu Mr Venkata Chintalapudi, Gayatri BioOrganics Limited Dr GSN Reddy, Department of Microbiology, Centre for Cellular and Molecular Biology

### **India Partnering Award: Development and application of lactic acid bacteria as designer probiotics**

£25,000

UK lead partner	Dr Arjan Narbad, Department of Gut Health and Food Safety, Institute of Food Research
Indian partner	Dr Ramachandra Gadre, Biochemical Engineering Group, CSIR - National Chemical Laboratory Dr Rajagopal Kammara, Protein Chemistry and Technology (PCT), CSIR – Central Food Technological Research Dr Sudhir Tomar, Indian Council of Agri Research (ICAR)

### **Improving wheat as a source of essential micronutrients**

£30,000

UK lead partner	Professor Peter Shewry, Department of Plant Biology & Crop Science, Rothamsted Research
Indian partner	Dr Anju Singh, Division of Genetics, Indian Agricultural Research Institute

### **India Partnership to Apply Advanced Genetic Tools to Combat Disease Resistance**

£30,000

UK lead partner:	Professor Christopher Whitelaw, The Roslin Institute, University of Edinburgh
Indian lead partner:	Dr Satish Kumar, Centre for Cellular & Molecular Biology

## **2012 Call**

### **India- United Kingdom Bioinformatics Network**

£25,000

UK lead partner	Dr Jan Kim, Department of Bioinformatics, The Pirbright Institute
Indian partner	Dr Rajendra Joshi, Centre for Development of Advanced Computing, Mumbai

### **Assessing the impact of foot-and-mouth vaccination programs**

£24,000

UK lead partner	Dr Richard Reeve, College of Medical, Veterinary & Life Sciences, University of Glasgow
UK partner	Professor Satya Parida, Department of Livestock Viral Diseases, The Pirbright Institute
Indian partner	Gunaseelan Lakshmanasami, Madras Veterinary College, Tamil Nadu

	Veterinary and Animal Science University Mr John Friar, Wise Monkey Foundation
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**2011 Call**

**India - Transfer of regulatory genes from Arabidopsis to Indian mustard for drought tolerance and yield increase**

£23,508

UK lead partner	Professor Philip Mullineaux, Department of Biological Sciences, University of Essex
Indian partner	Professor Neera Sarin, Jawaharlal Nehru University

**India-UK Development of Metabolic Models to Support Systems Biology Approaches to Bioenergy Research**

£24,575

UK lead partner:	Professor David Fell, Faculty of Health and Life Sciences, Oxford Brookes University
Indian lead partner:	Dr Syed Yazdani, International Centre for Genetic Engineering and Biotechnology (New Delhi) Professor K Mukherjee, School of Biotechnology, Jawaharlal Nehru University

**Towards process development of bacterial strains able to convert renewables into biofuels and other useful chemical commodities**

£27,000

UK lead partner	Professor Nigel Minton, School of Molecular Medical Sciences, University of Nottingham
Indian partner	Dr Kirstin Eley, Research & Development Department, TMO Renewables Ltd

**UK-India Partnership for the control of FMD and PPR**

£25,000

UK lead partner	Professor Satya Parida, Department of Livestock Infectious Diseases, The Pirbright Institute
Indian partner	Dr B Pattnaik, Project Directorate, FMD, Indian Council of Agricultural Research Dr Muthu Chelvan, Department of Virology, Indian Veterinary Research Institute Dr R.K. Singh, Joint Director of VTCC at Hisar

**India Partnership: Studying diverse growth dynamics in leaves**

£18,000

UK lead partner	Professor Enrico Coen, Department of Cell and Development Biology, John Innes Centre
Indian partner	R Utpal Nath, Department of Microbiology and Cell Biology, Indian Institute of Science

**2010 Call**

**Strategic Partnership in Skeletal Muscle Biology**

£24,970

## BBSRC INDIA PARTNERING AWARDS 2006 - 2019

UK lead partner	Dr Robert Knight, MRC Centre for Developmental Neurobiology, Randall Division of Cell and Molecular Biophysics, King's College London
Indian partner	Dr Jyotsna Dhawan, Stem Cell Department (inStem), National Centre for Biological Sciences

### 2009 Call

#### **Developing a UK-Indian strategic alliance to target a UK-Indian problem: *Salmonella* infection**

£24,100

UK lead partner	Dr Gary Rowley, School of Biological Sciences, University of East Anglia
Indian partner	Dr Dipshikha Chakravorty, Centre for Infectious Diseases Research (CIDR), Department of Microbiology and Cell Biology (MCB), Indian Institute of Science

#### **Integrating experimental and modelling approaches to understand and predict greenhouse gas emissions**

£23,920

UK lead partner:	Professor Elizabeth Baggs, Institute of Biological and Environmental Sciences, University of Aberdeen
Indian partner	Professor Tapan Adhya, Director, Central Rice Research Institute (CRRI)

#### **India link project for molecular epidemiology studies and orbivirus reference collection**

£25,000

UK lead partner	Professor Peter Mertens, Vector Borne Disease Programme, The Pirbright Institute
Indian partner	Dr Gaya Prasad, Department of Animal Biotechnology, CCS Haryana Agricultural University B. Mondal, Indian Veterinary Research Institute (IVRI), D Sreenivasulu, Department of Microbiology, College of Veterinary Science

#### **Food-Related Health Inequalities in Indian Populations in the UK and India**

£23,500

UK lead partner	Clare Mills, Department of Food Structure and Health, Institute of Food Research
Indian partner	Darshan Punia, Department of Food and Nutrition, CCS Haryana Agricultural University

### 2008 Call

#### **A molecular epidemiological approach to combat footrot, an endemic disease of sheep, host and pathogen perspectives from India and GB**

£16,400

UK lead partner	Laura Green, Biological Sciences, University of Warwick
Indian partner	Shakil Ahmad Wani, Division of Veterinary Microbiology & Immunity, University of Agricultural Sciences & Technology, Jammu and Kashmir

**To establish a strategic alliance with India to combat emerging viral diseases of global importance**

£24,840

UK lead partner	Kin-Chow Chang, Division of Veterinary medicine, School of Veterinary Medicine and Science, University of Nottingham
Indian partner	D. Sreenivasulu, Department of Microbiology, College of Veterinary Science, Andhra Pradesh N. Dorarirajan, Department of Veterinary Microbiology, Veterinary College and Research Institute, Tamil Nadu S.V. Kuchipudi, Assistant professor, Department of Veterinary Microbiology, S.V. Veterinary University, Andhra Pradesh

**Predictive modeling of the rice (*Oryza sativa*) metabolic network**

£25,000

UK lead partner	David Andrew Fell, School of Life Sciences, Oxford Brooks University
Indian partners	Sudip Kundu, Department of Biophysics, Molecular Biology and Bioinformatics, University of Calcutta, West Benga Swapan K Datta, , Department of Botany, University of Calcutta, West Bengal Rash Behari Ghosh, Department of Botany, University of Calcutta, West Bengal

**UK-India partnership on Marek's disease and RNA interference to control avian viral diseases**

£24,400

UK lead partner	Professor Venugopal Nair, Department of Microbiology, The Pirbright Institute
Indian partner	Dr K. Kumanan, Department of Animal Biotechnology, Madras Veterinary College

**2007 Call****Development of specific microbial consortia for the improvement of renewable bioenergy products**

£25,000

UK lead partner	Dr Phil Hobbs, Institute of Grassland and Environmental Research (IGER), North Wyke, Devon
Indian partners	S. Shivaji, Centre for Cellular and Molecular Biology, Hyderabad R. S. Prakasam, Indian Institute of Chemical Technology, Hyderabad

**Control of coccidiosis: *Eimeria brunetti*, a neglected but important pathogen of chickens**

£25,000

UK lead partner	Professor Fiona Tomley, The Pirbright Institute
Indian partner	M. Raman, Madras Veterinary College, Tamil Nadu Veterinary and Animal Sciences University, Chennai Dhinakar Raj, Madras Veterinary College, Tamil Nadu Veterinary and Animal Sciences University, Chennai

**A systems biology approach to the annotation of *Mycobacterium* and *Salmonella* genomes**

£24,760

UK lead partner	Dr Michael Watson, The Pirbright Institute
Indian partner	Dr Rajendra Joshi, Centre for Development of Advanced Computing, Pune

	University
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### **2006 Call**

#### **Basic and strategic partnerships enhancing UK and Indian plant and crop science**

£23,916

UK lead partner	Professor Brendan Davies, Centre for Plant Sciences, University of Leeds
Indian partner	Various, in Delhi, Bangalore and Hyderabad

#### **Anglo-Indian Immunoinformatics: Delivering *in silico* Vaccinology**

£24,200

UK lead partner	Darren Flower, Nuffield Department of Medicine, University of Oxford
Indian partner	G P S Raghava, Institute of Microbial Technology, Chandigarh

#### **Capacity Building in the Life Sciences: a Manchester- Bangalore Strategic Partnership**

£23,740

UK lead partner	Stephen High, Faculty of Life Sciences, The University of Manchester
Indian partner	The Indian Institute of Science, Bangalore

#### **Enhancing Brassica Oilseed Crop Improvement through Genomic Approaches**

£23,675

UK lead partner:	Graham King, Crop Performance and Improvement, Rothamsted Research
Indian lead partner:	Deepak Pental, Vice Chancellor, University of Delhi

#### **Developing novel inhibitors of *Mycobacteria tuberculosis* DNA topoisomerases**

£14,600

UK lead partner:	Tony Maxwell, Department of Biological Chemistry, John Innes Centre, Norwich
Indian lead partner:	V. Nagaraja, Microbiology and Cell Biology Department, Indian Institute of Science, Bangalore

#### **CCP4 Workshop on Protein Crystallography - Basic and Advanced Methods**

£22,000

UK lead partner:	Colin Nave, Synchrotron Radiation Department, CCLRC Daresbury
Indian lead partner:	B. Gopal, Molecular Biophysics Unit, Indian Institute of Science, Bangalore

#### **Integration of calcium and phosphoinositide signals in animal cells**

£17,750

UK lead partner:	Raghu Padinjat, Inositide Laboratory, Babraham Institute
Indian lead partner:	Gaiti Hasan, National Centre for Biological Sciences, Bangalore

#### **Organisation of the circadian clock in *Drosophila*: correlated responses to selection**

£24,000

UK lead partner:	Ezio Rosato, Department of Genetics, University of Leicester
Indian lead partner:	Vijay Kumar, Evolutionary and Organismal Biology Unit, Jawaharal Nehru Centre for Advanced Scientific Research, Bangalore