

## Australia–India Strategic Research Fund (AISRF) Early- and Mid-Career Fellowships 2020 Grant Recipient List

The Australia–India EMCR fellowships provide support (up to A\$16,500) for Australian scientists to travel to India and work with leading researchers at major Indian science and technology organisations for between one and three months.

The fellowships also facilitate long-term science, technology and innovation collaboration between Australia and India by developing researchers' expertise in international collaboration and fostering long-term relationships between Australian and Indian researchers. This increases Australian researchers' understanding of Indian culture, particularly science and research practices and systems, while developing leadership skills as future 'science ambassadors' for Australia.

The EMCR fellowships are a component of the AISRF, a platform for bilateral collaboration in science jointly managed and funded by the governments of Australia and India.

This program is supported by the [Department of Industry, Science, Energy and Resources](#).

Name and Organisation	Project	Host Institute
<b>Dr Sumeet Walia</b> <b>RMIT University</b>	<i>Harness atomically thin materials for pollution sensors and efficient industrial lubricants</i>	<ul style="list-style-type: none"> <li>– National Physical Laboratory, New Delhi</li> <li>– Indian Institute of Petroleum, Dehradun</li> </ul>
<b>Dr Nagendrakumar Singanallur Balasubramanian</b> <b>CSIRO</b>	<i>Systems-immunology based approach to study early immune responses to Foot-and-Mouth Disease vaccination in Asian buffalos</i>	<ul style="list-style-type: none"> <li>– Tamil Nadu Veterinary and Animal Sciences University</li> </ul>
<b>Dr Ravinesh Deo</b> <b>University of Southern Queensland</b>	<i>Developing resilience to climate change and variability for water resources management and food security with artificial intelligence</i>	<ul style="list-style-type: none"> <li>– National Institute of Hydrology Headquarters, Roorkee</li> </ul>
<b>Dr Sergey Kruk</b> <b>Australian National University</b>	<i>Photonics at the nanoscale: new disruptive ways to control light with nanotechnology</i>	<ul style="list-style-type: none"> <li>– Tata Institute of Fundamental Research</li> </ul>
<b>Dr Morteza Saberi</b> <b>University of Technology Sydney</b>	<i>Scholarly solution support system</i>	<ul style="list-style-type: none"> <li>– Indraprastha Institute of Information Technology Delhi</li> </ul>
<b>Dr Fiona Mckay</b> <b>Deakin University</b>	<i>Documenting the food insecurity experiences and nutritional status of women in India</i>	<ul style="list-style-type: none"> <li>– Chitkara University</li> </ul>

<b>Dr Suvash Saha</b> <b>University of Technology</b> <b>Sydney</b>	<i>Respiratory particle transport: aging effect and targeted drug delivery</i>	<ul style="list-style-type: none"> <li>– Indian Institute of Technology Kharagpur</li> <li>– Indian Institute of Technology Kharagpur</li> </ul>
<b>Dr Jegadesan Subbiah</b> <b>University of Melbourne</b>	<i>In-situ vibrational spectroscopic studies on the electrode interfacial process for renewable energy storage devices</i>	<ul style="list-style-type: none"> <li>– Indian Institute of Science Bangalore</li> </ul>
<b>Dr Alison Pearce</b> <b>University of Sydney</b>	<i>The cost of cancer in India: Local estimates of lost productivity due to premature cancer mortality</i>	<ul style="list-style-type: none"> <li>– Healix</li> <li>– Public Health Foundation of India</li> </ul>
<b>Dr Shuaifei Zhao</b> <b>Deakin University</b>	<i>Closing the CO2 loop in biogas production by innovative membrane technology</i>	<ul style="list-style-type: none"> <li>– Jain University</li> </ul>
<b>Dr Siva Krishna Karuturi</b> <b>Australian National University</b>	<i>New-generation materials for low-cost and high efficiency solar hydrogen generation</i>	<ul style="list-style-type: none"> <li>– Centre for Nano and Soft Matter Sciences</li> </ul>
<b>Dr Thanh Thi Nguyen</b> <b>Deakin University</b>	<i>A human-machine teaming framework based on deep reinforcement learning for disaster management</i>	<ul style="list-style-type: none"> <li>– Indian Institute of Technology Madras</li> <li>– Indian Institute of Technology Roorkee</li> </ul>
<b>Dr Sonika Tyagi</b> <b>Monash University</b>	<i>Using machine learning to develop robust and reproducible miRNA biomarkers to detect preterm labour</i>	<ul style="list-style-type: none"> <li>– School of Computational and Integrative Sciences</li> </ul>
<b>Dr Sanjay Nimbalkar</b> <b>University of Technology</b> <b>Sydney</b>	<i>Sustainable performance of future high-speed rail &amp; heavy haul freight corridors: effect of climate change &amp; mitigation measures</i>	<ul style="list-style-type: none"> <li>– Indian Institute of Technology Kharagpur</li> <li>– Indian Institute of Technology Bombay</li> </ul>
<b>Dr Christina Aggar</b> <b>Southern Cross University</b>	<i>A mobile digital learning program to support nurses' leadership and communication skills in chronic disease management: a primary healthcare initiative</i>	<ul style="list-style-type: none"> <li>– Kaher Institute of Nursing Sciences, KLE Academy of Higher Education and Research</li> <li>– Bharati Vidyapeeth College of Nursing, Sangli</li> </ul>
<b>Dr Rebecca Zwart</b> <b>University of Southern</b> <b>Queensland</b>	<i>A genomics approach to understanding root-lesion nematode resistance in chickpea</i>	<ul style="list-style-type: none"> <li>– International Crops Research Institute for Semi-Arid Tropics (INCRISAT)</li> </ul>
<b>Dr Jency Thomas</b> <b>La Trobe University</b>	<i>Metabolic syndrome influencing neurodegenerative disorder (MIND project)</i>	<ul style="list-style-type: none"> <li>– JSS Hospital and Medical Research Center</li> <li>– Daulat Ram College</li> </ul>

<b>Dr Ashmita Sengupta</b> <b>CSIRO</b>	<i>Developing functional environmental flows framework to enhance resilience and improve water security under climate change and urbanisation scenarios.</i>	– Indian Institute of Technology Delhi
<b>Dr Kaya Klop Toker</b> <b>University of Newcastle</b>	<i>Identification of frog and disease diversity in a remote part of India (Nagaland)</i>	– Centre for Cellular Microbiology – Wildlife Institute of India