

First grant awarded under Rio Tinto Australia-Japan Collaboration Program

21 January 2019

The Foundation for Australia-Japan Studies (FAJS) has announced the first grant awarded under the Rio Tinto Australia-Japan Collaborative Program, to a project focused on addressing global warming by building new technologies to pull two of the most problematic greenhouse gases out of the atmosphere and convert them into useful fuels.

The grant, in the amount of AU\$150,000, is awarded to **Associate Professor Toru Wakihara**, Department of Chemical Systems Engineering, **University of Tokyo** and **Professor Yusuke Yamauchi**, School of Chemical Engineering and Senior Group Leader, Australian Institute for Bioengineering and Nanotechnology, **University of Queensland**.

Their collaborative project, *Nanoarchitected Functional Porous Materials as Adsorbents of Greenhouse Gases and Catalysts: Converting Them into Valuable Chemicals* aims to address global warming through the reduction of greenhouse gases.

This Japan-Australia joint team will design and fabricate nanostructured adsorbent raw materials, including single layers of carbon atoms (graphene) and a material resembling volcanic mineral called zeolite, and construct them on the nanoscale to add special pores. The nanopores will make the materials even more capable for adsorption and provide space for efficient chemical conversion of the greenhouse gases carbon dioxide and nitrous oxide into hydrocarbons, the building blocks of petroleum and natural gas fuels. The academic-industry partnership spanning Japan and Australia will push the boundaries of chemical engineering and materials science and find solutions for global climate change and energy sustainability.

The Rio Tinto Australia-Japan Collaborative Program, the first program established under the FAJS and funded by the Rio Tinto Group, aims to support activities to raise the mutual profile and understanding between Australia and Japan by promoting bilateral research and other collaborative programs involving academic institutions and industry in the areas of science, technology and innovation.

Applications for 2019 grants under the Rio Tinto Australia-Japan Collaborative Program are now open through 31 January 2019. Details are available at www.fajs.org.

Notes for editors:

About Rio Tinto

Rio Tinto is a leading international mining group headquartered in London and with a corporate office in Melbourne, Australia. It combines Rio Tinto plc, a London and New York Stock Exchange listed company, and Rio Tinto Limited, which is listed on the Australian Securities Exchange, in a dual listed companies structure. From our diverse portfolio, we supply the metals and minerals that help the world to grow. Our major products are aluminium, copper, diamonds, gold, industrial minerals (borates, titanium dioxide and salt), iron ore, and uranium. We are strongly represented in Australia and North America, and also have significant businesses in Asia, Europe, Africa and South America.

Under our Group-wise organisational structure, our four product groups – Aluminium, Copper & Diamonds, Energy & Minerals, and Iron Ore – are complemented by our Growth & Innovation and Commercial groups.

About Rio Tinto and Japan

Japan is one of Rio Tinto's most important and longstanding trading partners. Rio Tinto's iron ore business was born on the back of Japanese investment and long-term offtake contracts with the Japanese steel mills in the 1960's. Today Rio Tinto is the largest supplier of iron ore to Japan, shipping over 1.8 billion tonnes to date over the past more than 50 years.

Rio Tinto is also one of the largest exporters of metals and minerals to Japan, supplying aluminium, copper, molybdenum, diamonds, uranium and industrial minerals such as borates, titanium dioxide and salt as well as iron ore to more than 250 customers. Japanese companies are important partners in Rio Tinto's operations around the world, in its global supply chain as well as in innovation.

About Foundation for Australia-Japan Studies

Foundation for Australia-Japan Studies (FAJS) is an independent, not-for-profit organisation established in Australia, with the mission to elevate the profile of Australia-Japan collaboration in science, technology and innovation and support the people who are transforming the bilateral relationship through these partnerships. Research grants form part of the Rio Tinto Australia-Japan Collaboration Program, which is the first program of the FAJS and is funded by the Rio Tinto Group, which is also a founding member of the FAJS.

The FAJS is chaired by former Australian Ambassador to Japan Mr Murray McLean AO. Professor Jenny Corbett (Emeritus Professor in the Crawford School of Public Policy at the Australian National University and Professorial Fellow at the Griffith Asia Institute of Griffith University) is the inaugural Rio Tinto Fellow under the Collaboration Program and has been based at the University of Tokyo since 2018 to represent the FAJS and to build networks with the objective of strengthening the links between academic research and industry to drive forward the rich potential for next generation economic and trade links between Australia and Japan.

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