

# AUSTRALIA-JAPAN INNOVATION AND RESEARCH SYMPOSIUM

KYOTO

22-25 OCTOBER 2018



UNIVERSITIES  
AUSTRALIA



一般社団法人 国立大学協会  
The Japan Association of National Universities



Australian Government



JAPAN 2018  
Australia  
now



# PROGRAM

## Monday 22 October 2018

|       |   |
|-------|---|
| 17.00 | Depart Grand Prince Hotel Kyoto (Australian Delegation)         |
| 17.45 | Arrive at The Sodoh Higashiyama Kyoto (Australian Delegation)   |
| 18.00 | Welcome Reception   |
| 20.00 | End of the Reception, back to the hotel (Australian Delegation) |

## Tuesday 23 October 2018

|      |   |
|------|---|
| 8.00 | Depart Grand Prince Hotel Kyoto (Australian Delegation)           |
| 8.20 | Arrive at Kyoto Institute of Technology                           |
| 8.30 | Registration  |
| 9.00 | Opening (MC: Professor Giuseppe Pezzotti, Professor Peter Wilson) |

9.10

### OPENING REMARKS

- 1. Dr Kiyotaka Morisako**  
President, Kyoto Institute of Technology
- 2. Ms Peta Arbuckle**  
Counsellor (Education and Science), Australian Embassy Tokyo
- 3. Dr Kyosuke Nagata**  
Vice-President of the Japan Association of National Universities (JANU) and President of University of Tsukuba
- 4. Professor Adam Shoemaker**  
Vice-Chancellor, Southern Cross University
- 5. Representative**  
Ministry of Education, Culture, Sports, Science and Technology (MEXT) (TBD)

9.40

## PRESENTATIONS - ACADEMIA (Australia)

**From indigenous studies to indigenous knowledge in Australia and Japan**

### SPEAKER

Professor Adam Shoemaker  
Vice Chancellor, Southern Cross University

### CHAIR

Professor Giuseppe Pezzotti  
Vice President, Kyoto Institute of Technology

10.10

## PRESENTATIONS - ACADEMIA (Australia)

**Large scale transnational research endeavours with shared infrastructure developments**

### SPEAKER

Professor Brigid Heywood  
Deputy Vice Chancellor (Research), University of Tasmania

### CHAIR

Professor Peter Wilson  
Associate Dean, Global Engagement, University of Tasmania

11.00

MORNING BREAK

11.10

## PRESENTATIONS - ACADEMIA (Joint Session)

**Case study on joint degree PhD program with the University of Adelaide**

### SPEAKER

Dr. Masahide Takahashi  
Trustee & Vice President, Nagoya University

**Research training and international research training partnerships with Japan: Macquarie perspectives**

### SPEAKER

Dr Ren Yi  
Executive Director, Research Training and International Research Training Partnerships, Macquarie University

### CHAIR

Professor Giuseppe Pezzotti  
Vice President, Kyoto Institute of Technology

|       |  |
|-------|--|
| 12.00 | <b>PRESENTATIONS - INDUSTRY</b><br><b>Aiming for impossible blue flowers: an Australia-Japan joint project</b><br><b>SPEAKER</b><br>Dr Yoshikazu Tanaka<br>Senior General Manager, Suntory Global Innovation Center<br><b>CHAIR</b><br>Professor Peter Wilson<br>Associate Dean, Global Engagement, University of Tasmania   |
| 12.40 | LUNCH - GROUP PHOTO  |
| 14.00 | <b>PRESENTATIONS - GOVERNMENT (Japan)</b><br><b>Successful research partnerships - Successes and opportunities from Australia / Japan collaboration in marine geoscience</b><br><b>SPEAKER</b><br>Dr Shin'ichi Kuramoto<br>Principal Research Scientist, Center for Deep Earth Exploration (CDEX), Japan Agency for Marine-Earth Science and Technology (JAMSTEC)<br><b>CHAIR</b><br>Professor Peter Wilson<br>Associate Dean, Global Engagement, University of Tasmania |
| 14.30 | <b>PRESENTATIONS - GOVERNMENT/POLICY</b><br><b>"100% Global" - How JST's funding programs can be internationalized</b><br><b>SPEAKER</b><br>Mr Osamu Kobayashi<br>Director, Department of International Affairs, Japan Science and Technology Agency (JST)<br><b>CHAIR</b><br>Professor Giuseppe Pezzotti<br>Vice President, Kyoto Institute of Technology   |
| 15.00 | AFTERNOON BREAK  |

15.10

## PRESENTATIONS - ACADEMIA (Joint Session)

**Development of a rehabilitation robot for assisting knee torque of individuals after stroke**

### SPEAKER

Professor Yuichi Sawada

Professor, Mechanical Engineering, Kyoto Institute of Technology

**The social impact of digital technologies: robotics and aged care in Japan and Australia**

### SPEAKER

Professor Anthony Elliott

Dean, External Engagement, University of South Australia

### CHAIR

Professor Peter Wilson

Associate Dean, Global Engagement, University of Tasmania

16.10

## PRESENTATIONS - ACADEMIA (Australia)

**Facilitating research collaborations**

### SPEAKER

Professor Jennifer Corbett

Rio Tinto Fellow, Foundation for Australia-Japan Studies

### CHAIR

Professor Giuseppe Pezzotti

Vice President, Kyoto Institute of Technology

16.40

## PRESENTATIONS - ACADEMIA (Australia)

**Successful research partnerships - University of Wollongong collaboration with the National Institute for Materials Science**

### SPEAKER

Professor William Price

Executive Director, Australian Institute for Innovative Materials (AIIM), University of Wollongong

### CHAIR

Professor Peter Wilson

Associate Dean, Global Engagement, University of Tasmania

17.10

## CLOSING REMARKS

Dr Liz Eedle

Policy Director, Research and Innovation, Universities Australia

17.20

End of Symposium, back to the hotel or city walk (Australian Delegation)

## Wednesday 24 October 2018

|       |  |
|-------|--|
| 9.20  | Depart Grand Prince Hotel Kyoto (Australian Delegation)  |
| 9.50  | Arrive at Kyoto University   |
| 10.00 | Meeting with VP for International Affairs, Dr. Kayo Inaba  |
| 10.40 | Visit to Office of Society-Academia Collaboration for Innovation<br>(includes tour at the International Science Innovation Building) |
| 11.45 | LUNCH  |
| 13.00 | Depart Kyoto University  |
| 14.30 | Arrive at Osaka University Suita Campus<br>Osaka University Suita Campus tour  |
| 16.30 | Depart Osaka University  |
| 18.00 | Arrive at Grand Prince Hotel Kyoto   |

## Thursday 25 October 2018

|       |  |
|-------|--|
| 8.15  | Depart Grand Prince Hotel Kyoto                          |
| 9.45  | Arrive at Suntory Global Innovation Center               |
| 10.00 | Suntory Global Innovation Center Tour                    |
| 11.00 | Depart Suntory Global Innovation Center                  |
| 11.20 | Arrive at Nara Institute of Science and Technology       |
| 11.45 | Introduction of Nara Institute of Science and Technology |
| 12.00 | Lunch (inside Nara Institute of Science and Technology)  |
| 13.00 | Lab Tour   |
| 14.30 | Brief meeting with President and Senior Officers         |
| 14.45 | Depart Nara Institute of Science and Technology          |
| 16.15 | Arrive at Grand Prince Hotel Kyoto                       |

# BIOGRAPHIES





**Professor Adam Shoemaker**

Vice-Chancellor  
Southern Cross University

Professor Adam Shoemaker is one of Australia's leading researchers in the area of Indigenous literature and culture. Prior to his appointment as Vice-Chancellor of Southern Cross University, he held senior leadership roles at a number of other Australian universities including Academic Provost at Griffith University, Deputy Vice Chancellor (Education) at Monash University and Dean of Arts at the Australian National University.

A former Commonwealth Scholar, Professor Shoemaker is the author or editor of nine books in the field of Indigenous literature and culture, and is also widely published in the areas of international and digital education, race relations and cultural studies. His achievements in community engagement include founding the Oxfam-Monash Partnership and co-founding the Monash-World Vision Alliance, both of which encompassed action research, in-country projects in Africa, Asia and the Pacific, student-focused internships and curriculum change.

Canadian by birth, Professor Shoemaker holds an Honours Bachelor of Arts from Queen's University and a PhD from the Australian National University. He served as Chair of the Brisbane Writers Festival in the mid-1990s and edited a landmark anthology of Australian writing and photography which was published in association with the Sydney 2000 Olympics. For many years he chaired the Advisory Board of Monash University Publishing and was on the Advisory Board of Campus Review. He is a former Director of Open Universities Australia, a trustee of the Brisbane Girls Grammar School and most recently was Deputy Chair of the Queensland Curriculum and Assessment Authority.

## **FROM INDIGENOUS STUDIES TO INDIGENOUS KNOWLEDGE IN AUSTRALIA AND JAPAN**

The Japanese-Australian connection is long and strong. Its invocation in literature and cultural studies is perhaps less-known; however, the bridge forged by verbal artists, novelists and academics in both nations is remarkably interesting. And the connective contribution of First Nations writers to Indigenous Knowledge in both countries is even more so.

The 1993 work of Noel Loos and Takeshi Osanai is a seminal example. In that year academics from James Cook University and the Hokkaido University of Education co-edited an unprecedented text, comparing Ainu, Torres Strait Islander and Aboriginal perspectives on education, language, cultural rights and future possibilities. And the relationship between Indigeneity and cultural power in both nations has continued to evolve, with another landmark being the 2017 launch of the Japanese translation of Kim Scott's Miles Franklin Award-winning novel *That Deadman Dance*.

This session provides an insight into a number of these defining academic and creative research contributions to Indigenous Knowledge in both Japan and Australia. It celebrates what has been achieved and suggests opportunities for future publication, collaboration and joint impact.



**Professor Brigid Heywood**

Deputy Vice-Chancellor (Research),  
University of Tasmania

Professor Brigid Heywood (BSc) (PhD) is Deputy Vice-Chancellor (Research) at the University of Tasmania. Professor Heywood has responsibility for the research and innovation strategy of the University, the University research institutes, research students, research infrastructure and commercialisation services. Prior to taking up this position, Professor Heywood held senior executive positions in universities in New Zealand and the UK as well as working in Africa and South-East Asia.

Throughout her academic and wider professional career she has always worked closely with business and industry, and has used those opportunities to advance her interests in enterprise and innovation as drivers to foster economic and social change and regenerate communities. She has been associated with large research infrastructure and with successful IP spin-outs from universities, has worked in developing new science parks, has nurtured on-campus incubators for high-growth potential businesses as vehicles to foster new modes of interactions between universities and industry, and has fostered student enterprise initiatives. She has said that “the opportunity to work at the interface between universities, with their rich research portfolios and their various complex communities and publics, to facilitate a transformation agenda was a key reason for choosing to work in universities.”

### **LARGE SCALE TRANSNATIONAL RESEARCH ENDEAVOURS WITH SHARED INFRASTRUCTURE DEVELOPMENTS**

Knowledge creation through strategic research collaborations is one of the key methods for developing globally significant research and providing a meaningful return on investment. Bibliometric data show the value and purpose of multi-professional and multi-dimensional collaborative teams working to develop infrastructure, deploy resources and work in a focused manner to address specific intellectual, scientific, economic and social problems across health and medicine, the natural environment, planetary sciences and human society. In this presentation, examples of collaborative models of various typologies, including international partnerships will be explored in the context of their functional relevance, and operational effectiveness.

A particular focus will be the genesis, stewardship and realisation of large multi-year research infrastructure projects operating across multiple funding landscapes, involving layered government investment and private sector contributions. The presentation will cover the project life-cycle, including setting up consortia, developing proposals, and managing projects. It will focus on the key elements which can maximise the chances of success: how to choose collaborators, how to decide which funding programs to bid for, how to approach bid writing, how to manage performance, how to handle the inevitable tensions and trade-offs, and how to celebrate success.



**Dr Masahide Takahashi**

Trustee and Vice-President, Nagoya University

Dr Masahide Takahashi received his M.D. and PhD from Nagoya University in 1979 and 1983, respectively. He carried out postdoctoral research at Dana-Farber Cancer Institute in Boston. He joined Aichi Cancer Center Research Institute (Nagoya) as a research scientist in 1985 and moved to Nagoya University as an assistant professor in 1990. He was promoted to full professor in the Department of Pathology at Nagoya University in 1996. He was a director of the Center for Neurological Disease and Cancer at Nagoya University (2003-2012). He was Dean and Professor of Nagoya University Graduate School of Medicine (2012-2017). He is currently Trustee (Research and Gender Equality), Vice President of Nagoya University. His research interests include oncogene function, cancer invasion and metastasis, and development of the nervous system.

### **CASE STUDY ON JOINT DEGREE PHD PROGRAM WITH THE UNIVERSITY OF ADELAIDE**

The Joint PhD program (JDP) is the highest priority to promote the internationalization of graduate student education in Nagoya University. When I was appointed as Dean of the Graduate School of Medicine eight years ago, the number of young Japanese scientists who chose to study abroad was decreasing and their motivation to go overseas was not high.

To overcome this situation, I decided to promote the JDP with overseas universities for graduate students, because I felt that it would be important in changing the mentality of Japanese early-career scientists as well as improving the quality of doctoral theses. To discuss the JDP, our faculty members visited several European and Australian universities including the University of Adelaide in 2013, and mini symposia were held at that time to exchange and understand the status of research and education between universities.

Through this effort, we agreed with the University of Adelaide to promote the JDP, which was accepted by the Ministry of Education of Japan (MEXT, Monbukagakusho) in 2015; the first JDP in Japan with an overseas university. Following this, the Graduate School of Medicine established three JDP programs with overseas universities including the University of Lund (Sweden) and the University of Freiburg (Germany).

Several schools of Nagoya University are following our strategy and, as a result, the Graduate School of Science and Graduate School of Bio-agriculture established or are establishing a JDP with the University of Edinburgh, the University of Western Australia and the University of Kasetsart (Thailand).

In this meeting, I would like to introduce our initiatives related to the JDP.



**Dr Ren Yi**

Executive Director Research Training & International Research Training Partnerships, Macquarie University

Dr Yi is an experienced research executive and researcher with a keen interest in the effective management of higher degree research processes. He has been working in higher education for more than 15 years, including positions at the University of Melbourne, The University of Queensland, Victoria University, the University of Southern Queensland and Macquarie University.

Dr Yi is actively involved with the research management profession. He is the Past President of the Australasian Research Management Society (ARMS) and is an active member of the International Network of Research Management Societies (INORMS). He has also been appointed to different research management committees by the Australia Research Council and by Universities Australia. In 2009, Ren was awarded an Australian Endeavour Executive Award by Deputy Prime Minister The Hon Julia Gillard. In the same year he won an Award for Excellence from the Australasian Research Management Society for embedding research administration in a regional university. In 2016 Dr Yi was awarded the Distinguished Service Award to Research Management by the Australasian Research Management Society.

He has extensive experience as a researcher, completing a PhD at the University of Melbourne in economic geography and international business in 2004. He completed an Australia Research Council Linkage grant in 2015 focusing on international business, social psychology and economic geography. Dr Yi is currently a reviewer for the Academy of International Business and the Australian Research Council.

Dr Yi also has extensive industry management experiences. He has participated in several management consulting projects for international companies. Ren was the Vice-President and Executive Officer for the Australia China Business Council (ACBC) QLD Branch from 2005-2007.

### **RESEARCH TRAINING AND INTERNATIONAL RESEARCH TRAINING PARTNERSHIPS WITH JAPAN: MACQUARIE PERSPECTIVE**

Macquarie's global perspective is central to the development of an International Research Training Partnerships Framework. Deep, durable relationships with international research universities through joint research supervision is a priority for the Research portfolio and a core component of our broader strategy to strengthen collaborative partnerships globally.

We have more than 364 joint and cotutelle PhD enrolments arising from agreements with 110 universities in more than 35 countries. Partner universities are selected based on already established collaborative research relationships and a combination of factors, including international and national research rankings and/or recognition, relevant disciplinary strengths, program governance and funding support capabilities. Importantly, cotutelle and joint PhD schemes are open to both international and domestic high-quality PhD candidates. Cotutelle arrangements are of huge benefit to candidates as they provide them with an international experience at a high-ranking partner university, effectively doubling the size of their research networks.

International research training programs deepen and strengthen research collaborations and networks at an individual and institutional level, and foster a higher level of cooperation between researchers through co-supervision. They provide access to new funding schemes and international enrolments and, importantly, create an opportunity to increase joint publications, citation rates and rankings. Candidates are exposed to different academic environments helping position them as world ready. The programs enhance a candidate's training experience and give them access to the latest research equipment and technologies at two institutions. Candidates are also exposed to international networking opportunities that may expand their future employment opportunities – whether through access to new academic institutions or new industries.

Japan is an important research training partner for Macquarie University. This presentation will give some examples about Macquarie University developing Cotutelle PhD programs with Japanese universities such as Tohoku University, Osaka University and other partners.



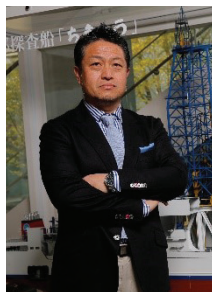
**Dr Yoshikazu Tanaka**

Senior General Manager, Suntory Global Innovation Center

1981 - Bachelor of Science, Osaka University  
1983 - Master of Science, Osaka University  
1983 - Joined Suntory Ltd.  
1988 - Doctor of Science, Osaka University  
Current position

### **AIMING FOR IMPOSSIBLE BLUE FLOWERS: AN AUSTRALIA-JAPAN JOINT PROJECT**

Important cut flowers including roses, carnations and chrysanthemums lack blue/violet colour flowers due to the genetic deficiency of a key enzyme to synthesize blue pigments, flavonoid 3',5'-hydroxylase. By using the gene from existing blue flowers, researchers have been able to produce novel bluish varieties which have eluded traditional breeding techniques. The long and winding roads to develop and commercialize the transgenic roses and carnations will be presented.



### **Dr Shin'ichi Kuramoto**

Principal Research Scientist, Center for Deep Earth Exploration (CDEX), Japan Agency for Marine–Earth Science and Technology (JAMSTEC)

Dr Kuramoto earned a Doctor of Science from the University of Tokyo in 1991, and took a postdoctoral position at the University of Hawaii before accepting a research role at the Geological Survey of Japan (GSJ) in 1993. Ten years later he moved to the Japan Agency for Marine–Earth Science and Technology (JAMSTEC), where the Chikyu project had commenced in 2002. In 2014 he became the Director General of the Center for Deep Earth Exploration (CDEX).

Dr Kuramoto's major science field is marine geology and geophysics, and studying mainly the tectonics of Japanese Island arc system.

### **SUCCESSFUL RESEARCH PARTNERSHIPS - SUCCESSES AND OPPORTUNITIES FROM AUSTRALIA/JAPAN COLLABORATION IN MARINE GEOSCIENCE**

Geoscience Australia and the Japan Agency for Marine–Earth Science and Technology have been collaborating since 2014 to understand the 100-million-year history of Zealandia, an intriguing continental fragment submerged beneath the ocean east of Australia. This collaboration is opening up unique research opportunities for Australian, Japanese and international researchers to study Earth processes, climate dynamics, and the limits to life on Earth.



**Mr Osamu Kobayashi**

Director, Department of International Affairs,  
Japan Science and Technology Agency

March 1992: Graduated from Keio University,  
Faculty of Economics,

April 1992-February 2001: Nikon Corporation,  
International Trade Department, Korea & Taiwan  
Sales and Marketing, Precision Equipment  
Division,

March 2001- November 2006: Japan Science and  
Technology Corporation (Current Japan Science  
and Technology Agency, JST), Deputy Manager,  
Department of S&T Basic Research, Financial  
Management, International Affairs,

November 2006- November 2008: Science  
and Technology in Society (STS) forum, NPO  
(2007-Program Officer),

November 2008- June 2012: Japan Science and  
Technology Agency (JST), Manager, Department  
of International Affairs,

July 2012 – September 2015: Director of  
Singapore Office

September 2015 – October 2016: Manager of  
Department of Personnel

October 2016 – April 2017: Director of Office of  
International Strategy

April 2017 - Current Position

### **“100% GLOBAL” - HOW JST’S FUNDING PROGRAMS CAN BE INTERNATIONALIZED**

The nature of science, technology and innovation (STI) worldwide is undergoing dynamic and rapid change. This evolution is clearly observed in the growing trend towards more open international cooperation in research and business to apply science and technology to multidimensional challenges that are difficult to solve by any single country or institution (global issues), as well as in the increasing circulation of exceptional talent across borders. This is the reason why JST strives to make all our activities more international. I introduce our actions to internationalize our funding programs under the slogan of “100% Global” which is set in our “International Strategy 2017” as an ambitious target.



**Professor Yuichi Sawada**

Professor, Mechanical Engineering, Kyoto Institute of Technology

1988: Kyoto Institute of Technology, B.E.

1990: Kyoto Institute of Technology, M.E.

1994: Kyoto Institute of Technology, PhD

1995: Kyoto Institute of Technology, Department of Mechanical and System Engineering, Research Associate

2006: Kyoto Institute of Technology, Department of Mechanical and System Engineering, Associate Professor

2007: Kyoto Institute of Technology, Division of Mechanical and System Engineering, Associate Professor

2015: Kyoto Institute of Technology, Faculty of Mechanical Engineering, Professor

1990 – 1991: Minolta Camera Co.,Ltd., Mechanical Engineer

1999 – 2000: Washington University in St. Louise USA, Visiting Scholar

Research Fields: Control Theory, Signal Processing, Control of Stochastic Systems, Mechatronics, Robotics

Member of IEEE, CEng. and Member of IMechE, Member of SICE, JSME, ISCIE and RSJ

### **DEVELOPMENT OF A REHABILITATION ROBOT FOR ASSISTING KNEE TORQUE OF INDIVIDUALS AFTER STROKE**

Robot technologies have been used in the field of rehabilitation. We are now developing a rehabilitation robot device for assisting the knee in individuals after stroke. This device is light weighted, small and can easily be attached to the conventional Knee-Ankle-Foot-Orthosis for assisting the knee. The control system for this device is a key technology, in order to generate the timing to assist the knee during its gait. The controller works using the hip joint angle measured by means of acceleration and gyro sensors. The developed rehabilitation robot and its basic concept of control algorithm will be presented.





**Professor Anthony Elliott**

Dean, External Engagement, University of South Australia

Professor Anthony Elliott is Chancellery Dean of External Engagement at the University of South Australia, where he is Executive Director of the Hawke EU Jean Monnet Centre of Excellence and Network and Research Professor of Sociology.

Professor Elliott is currently also Super-Global Professor of Sociology at Keio University, Japan and Visiting Professor of Sociology at University College Dublin, Ireland. He was previously Professor of Sociology at the University of Kent at Canterbury, UK. He is a Fellow of the Academy of the Social Sciences in Australia, a Fellow of the Cambridge Commonwealth Trust, and a member of King's College, Cambridge. He has held visiting Fellowships and Professorships at universities in the UK, Ireland, France, USA, and Japan, and most recently was a Visiting Fellow at the Long Room Hub, Trinity College Dublin, Ireland, and a Visiting Professor at the Université Panthéon Assas, Paris II, France. Professor Elliott is a specialist in Social Theory, and holds a PhD from Cambridge University – where he studied with Lord Anthony Giddens – and a BA (Hons) from the University of Melbourne. He is the author and editor of some 40 books, which have been translated or are forthcoming in 17 languages. Through research grants from the Toyota Foundation, the Japan Foundation, Erasmus+ Jean Monnet Program, and the Australian Research Council, Professor Elliott currently leads an international team – working across Australia, Japan, New Zealand, Germany, Denmark, Poland, Finland, Ireland, and the UK – investigating the social impact of digital technologies, robotics and artificial intelligence.

### **THE SOCIAL IMPACT OF DIGITAL TECHNOLOGIES: ROBOTICS AND AGED CARE IN JAPAN AND AUSTRALIA**

The digital revolution, especially advances in AI, robotics and accelerating automation, impacts the world's ageing population and aged care as thoroughly as other sectors of economy and society. This has become markedly so in Japan, where public discussions of ageing often involve optimistic accounts of robotic technologies in terms of improvements to the lifestyles of the elderly. This presentation derives from research supported by the Toyota Foundation, and conducted by an interdisciplinary team at the University of South Australia and various universities in Japan – including Keio University, Rissho University, KGU, Rikkyo University and the University of Tokyo – working on a range of projects concerning global digital transformations. The research also involves exchanges between graduate students, under the terms of a Double PhD Degree between UniSA and Keio University. Examining the EU Social Engagement with Robotics project to contextualize the field, this presentation outlines how elderly people are culturally perceived by robot-developers in Japan who are seeking to create technologies for this demographic group. The preliminary findings presented in this paper indicate that Japanese robot-developers appear to share many assumptions about what elderly people are capable of and what constitutes the most optimal way of ageing. The research underscores that human-robot interactions in aged care are constructing innovative forms of emotional attachments to digital objects, as well as new forms of sociality.



**Professor Jennifer Corbett**

Rio Tinto Fellow, Foundation for Australia-Japan Studies

Professor Jenny Corbett taught and researched the Japanese economy for over 30 years. She graduated from the Australian National University (ANU) and has a PhD in Economics from University of Michigan. She is the Rio Tinto Fellow, Foundation for Australia-Japan Studies, based at University of Tokyo. Until 2017 she held academic and executive positions at ANU as Distinguished Professor of Economics; Director of the ANU Japan Institute; and Pro Vice-Chancellor (Research and Research Training) ANU. She is Reader in the Economy of Japan at the University of Oxford. She is a Fellow of the Academy of the Social Sciences in Australia. She sits on the Executive of the Australia-Japan Business Cooperation Committee. In 2014 she was awarded the Order of the Rising Sun Gold Rays with Neck Ribbon.

## **FACILITATING RESEARCH COLLABORATIONS**

Australia and Japan have a rich history of research collaborations but it is difficult to describe and document. Even at the level of a single university it is hard to document the range of research collaborations with any one country. The available tools capture some elements but not all, and any attempt at comprehensive mapping is likely to be incomplete. The problem is more extreme at a national level. A mapping would be valuable for a number of reasons but the benefit needs to be balanced against the cost of creating and maintaining it. On the ledger we need to note that we lose the potential value of synergies between projects if we don't know what projects are underway. In addition, it is harder

to build a picture of what kind of support helps build collaborations and where the gaps are if we have little information about what has taken place and how they were created.

Groups like those in this conference take for granted that collaboration is valuable. Collaborative research is in the DNA of most science, engineering and technology researchers and, to an increasing degree, that of social scientists. Demonstrating the value, however, is a significant data challenge but if we can't see it we can't build a case for support for it and we need to think about whether the tools we have are adequate and what else we might need.

If we struggle to describe our current collaborations it is even more difficult to think about where we want to go. This presentation will ask how we can think about what areas are most fruitful for collaboration. It will look at some ways in which we forecast future research needs and how we set research priorities. It also asks who should set those priorities and how much impact they really have. If we manage a measure of agreement on the direction, that would allow us to think more clearly about what types of support and policy framework help to achieve it.



**Professor William Price**

Executive Director, Australian Institute for Innovative Materials (AIIM),  
University of Wollongong

Since 2013 Professor William Price has been Executive Director of the Australian Institute for Innovative Materials (AIIM) at the University of Wollongong's Innovation Campus. Prior to this he held positions of the Dean of the Faculty of Science (2008-2013) and Head of the School of Chemistry (2001-2008).

Professor Price is a physical chemist by training. He completed his BSc (Hons) at Imperial College, London, UK and stayed there to do his PhD on kinetics of extraction of solubles from foods. He has had a number of periods working in industry in the UK including Abbott Pharmaceuticals, Unilever Research and British Petroleum Research. He moved to the Australian National University as a Queen Elizabeth II Research Fellow in 1986 to work in the Atomic and Molecular Physics Laboratories, in the Research School of Physical Sciences. In 1989 Professor Price moved to University of Wollongong and joined the (then) Department of Chemistry as a lecturer.

Professor Price's research is broad ranging with long-standing interests in properties and structure in polymers, complex fluids, and foods. A major part of his research has involved the development of responsive polymer membrane systems. His current research program is focussed in two areas: (i) the use of membrane technology for the removal of pollutants from wastewater; and (ii) development of analytical methods for bioactive components in foods, clinical and environmental samples. He has published over 200 peer reviewed articles in international journals on his work.

### **SUCCESSFUL RESEARCH PARTNERSHIPS – UNIVERSITY OF WOLLONGONG COLLABORATION WITH THE NATIONAL INSTITUTE FOR MATERIALS SCIENCE**

The University of Wollongong (UOW) through its flagship Australian Institute for Innovative Materials (AIIM) has a strong collaborative relationship with the National Institute for Materials Sciences (NIMS) established more than 23 years ago. To date, the partnership has yielded over 15 collaborative research projects worth close to \$3 million, staff and student exchanges, and more than 120 joint publications. UOW and NIMS formalised their existing partnership through the signing of a Memorandum of Understanding (MoU) in 2015. Under the MoU a joint research centre has been established with one of the major divisions within NIMS, the International Centre for Materials Nanoarchitectonics (MANA). Recent projects have focussed on a broad range of exciting new materials and technologies, including high performance energy storage systems, new materials for  $O_2$  electrocatalysis and new methods for visualising photochemical reactions at an atomic scale.

