# THEORY MEETS PRACTICE:

MASTER CLASS IN SCIENCE ENGAGEMENT AND POLICY MAKING

**PROGRAM** 

FRIDAY 5 DECEMBER 2014 SHINE DOME, CANBERRA



National Committee for History and Philosophy of Science

A COMMITTEE OF THE AUSTRALIAN ACADEMY OF SCIENCE









#### Housekeeping

Dietary Meals for those with particular dietary requirements are provided

and may be found on the catering table closest to the kitchen door

in the Jaeger Room.

Internet access Wireless internet access is available throughout the Shine Dome.

The networks are Shine-01, Shine-02, Shine-03 and Shine-04, a

password is not required.

Live streaming Livestreaming of the event is available at

www.science.org.au/livestream.

Taxis to airport A sign-up sheet is located at the registration desk. Please add your

name to this list by the end of the lunch break if you require a taxi

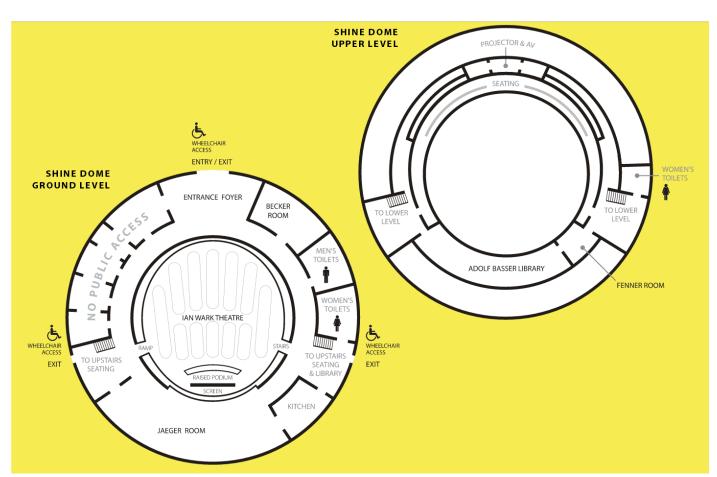
to the airport at the conclusion of the session.



@Science\_Academy #scimasterclass



Australian Academy of Science



Contact: National Committees Office, ia@science.org.au, 02 6201 9456

#### **About the Master Class**

Science plays a vital role in nearly every aspect of our lives, yet across the community and in government, misunderstandings still flourish and support for science is highly variable. This is despite a wealth of evidence about the best ways to engage the public, politicians and policymakers.

This one-day master class with leaders in the field will help you underpin your work with evidence, apply best practice, and bridge the gap between the theory and practice of science communication and policy-making. In each session, a leading scholar will pair with a successful practitioner working at the front line of science engagement to discuss practical approaches, research and future directions.

Convened by Australia's National Committee for History and Philosophy of Science, this workshop is ideal for science policymakers and communicators, scientists and academics working in science policy development and communication.

### The National Committee for History and Philosophy of Science

The National Committee for History and Philosophy of Science (NCHPS) is one of 22 National Committees for Science of the Australian Academy of Science.

The NCHPS works to foster history and philosophy of science and science and technology studies (HPS/STS) in Australia, to link the Academy to Australian HPS/STS researchers and to serve as a link between Australian and overseas HPS/STS researchers, primarily through the International Union for History and Philosophy of Science.

The committee includes active scholars in the field and represents various teaching programs and research centres in Australia, promoting a spirit of cooperation essential for maintaining communication within the HPS/STS community. It is an important point of contact for those engaged in recording, analysing, and publicising excellence in past and present Australian science, and making these results accessible. The NCHPS actively contributes to governmental and policy debates in Australia as well as to maintaining ongoing reviews of the state of the field, and efforts toward its continued growth.

More information on the NCHPS may be found at <a href="https://www.science.org.au/commitee/history-and-philosophy-science">www.science.org.au/commitee/history-and-philosophy-science</a>.

# Program

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10.00	Welcome and overview				
	<ul> <li>Professor Rachel A Ankeny, Chair of the National Committee for History and Philosophy of Science</li> </ul>				
	Session one				
10.10	Inviting the public into science policy-making				
<ul><li>Dr Darr</li></ul>	in Durant, University of Melbourne				
<ul><li>Dr Craiq</li></ul>	g Cormick, ThinkOutsideThe				
10.45	Morning tea, Jaeger Room				
11.00	Case study: Policies on banking and using Indigenous specimens				
<ul><li>A/Profe</li></ul>	ssor Emma Kowal, Deakin University				
<ul><li>Mr Jere</li></ul>	my Kenner, Monash University				
11.30	New ways of engaging the public in science				
<ul><li>Dr Cam</li></ul>	eron Muir, Australian National University				
<ul><li>Dr Mart</li></ul>	ha Sear, National Museum of Australia				
12.00	General discussion				
<ul> <li>Facilitat</li> </ul>	or: A/Professor Gavan McCarthy, University of Melbourne				
12.45	Lunch, Jaeger Room				
	Session two				
1.30	Science, food and labelling				
<ul><li>Dr Heat</li></ul>	her Bray, University of Adelaide				
<ul><li>Dr Trev</li></ul>	or Webb, Food Standards Australia and New Zealand				
2.00	Communicating climate change				
■ Dr Will	Grant, Australian National University				
<ul><li>Mr Keta</li></ul>	n Joshi, Infigen Australia				
2.30	Afternoon tea, Jaeger Room				
3.00	Big data and open science				
<ul><li>Profess</li></ul>	or Rachel A Ankeny, University of Adelaide				
<ul><li>A/Profe</li></ul>	ssor Gavin Huttley, Australian National University				
3.30-4.00	General discussion and wrap-up				
<ul> <li>Facilitat</li> </ul>	or: A/Professor Joan Leach, University of Queensland				

#### **Facilitators**



# **Associate Professor Joan Leach**, University of Queensland

Joan Leach (BA hons, BSc, MA, PhD) convenes the Science Communication Program at the University of Queensland and is Associate Professor of Rhetoric in the School of English, Media Studies and Art History. Her research centres on public engagement with science, medicine and technology and she has been active in the Australian government's recent initiatives toward "Inspiring Australia." She is currently researching the role of popular science in the globalization of science since the 1960s, a project funded by the Australian Research Council.

She has published extensively about science communication, including a 2012 book Rhetorical Questions of Health and Medicine, and was editor of the International journal, Social Epistemology from 1997-2010 and is now an executive editor at the journal. She held academic posts at the University of Pittsburgh (USA) and Imperial College London before moving to Brisbane in 2005. Joan has won numerous academic awards for her research and community engagement, including being a Science Journalism Laureate at Purdue University (USA). She is currently President of the Australian Science Communicators.



# **Associate Professor Gavan McCarthy,** University of Melbourne

Gavan McCarthy has worked at the University of Melbourne in and around archives since 1978. In 2007, he was appointed Director of the eScholarship Research Centre in the University Library and in 2013 was appointed Associate Professor. He was Director of the Australian Science and Technology Heritage Centre (1999-2006) and led the Australian Science Archives Project (1985-1999), both in the Department of History and Philosophy of Science, Faculty of Arts, University of Melbourne. His research, predominantly based on action research

methodologies, covers the history and archives of Australian science, contextual information frameworks, archival science and the preservation of knowledge, and the utilisation of network science in social and cultural informatics.

For more details go to: <u>Encyclopedia of Australian Science - Gavan McCarthy Biography</u> <u>page</u>.

# Inviting the public into science policy-making



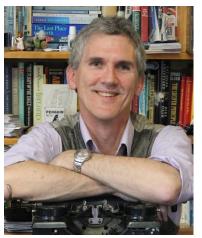
**Dr Darrin Durant,** Historical and Philosophical Studies, University of Melbourne

Public Engagement with Science as Tension Maintenance?

There are many social science models of how experts and citizens can better engage come policymaking time, but do we aim for resolving too many tensions and miss the benefits of keeping some tensions alive?

Dr. Durant lectures on social studies of science and science policy, in the unit for History and Philosophy of Science, School of Historical and Philosophical Studies, the University of Melbourne. Dr. Durant has published widely on debates about the role of experts and publics in modern liberal democracies, while also investigating energy

politics, from nuclear power to climate change.

**Dr Craig Cormick,** ThinkOutsideThe, formerly Public Awareness and Community Engagement, Department of Industry

Participation in Science Policymaking: How do you best involve the general public in science policy making, when so many members of the public are disengaged, and many of the most actively involved represent ideological interests?

Dr Craig Cormick is a science communicator and social scientist. He has worked for over 25 years with CSIRO, Questacon and the Department of Industry, at the intersection of research, practice and

policy. He is widely published in journals and in the media on drivers of attitudes towards new technologies, and has taken part in policy workshops and working groups for APEC and OECD. In 2011 he was joint winner of an International Association of Public Participation Core Values Award for the development of a model of Community Engagement in Science and Technology (with Dr Wendy Russell), and in 2014 he was awarded the Unsung Hero of Science Communication by the Australian Science Communicators.

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# Case study: Policies on banking and using Indigenous biospecimens



**Associate Professor Emma Kowal,** Principal Research Fellow, Centre for Citizenship and Globalisation at Deakin University

A/Professor Kowal's presentation will outline her role in the formation of the National Centre for Indigenous Genomics and the contribution of social science research to science policy in this field.

Emma Kowal is Principal Research Fellow in the Centre for Citizenship and Globalisation and Associate Professor of Anthropology in the School of Humanities and Social Sciences at Deakin University. She is also Deputy Director of the National Centre for Indigenous Genomics at the ANU. She is a cultural anthropologist who has previously worked as a medical doctor and public health researcher in Indigenous health settings. Her research interests include Indigenous-state relations and settler colonialism, racism and antiracism, science and genomics.

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# **Mr Jeremy Kenner,** Adjunct Senior Research Fellow, Monash University

Mr Kenner's presentation will focus on the impact of attitudes towards research use of indigenous biospecimens on the development of public policy in this area, with specific attention to the development of guidelines for researchers as an expression of a policy outcome.

Jeremy Kenner is the Expert Advisor for Ethics to the National Health and Medical Research Council's Research Translation Group and also advises the NHMRC's Strategic Policy Group on clinical trials-

related matters. Jeremy previously served as the Ethics Coordinator at Peter MacCallum Cancer Centre for nine years and was involved in a variety of national initiatives to streamline ethical review and promote responsible governance of research. He also has extensive public speaking experience and has worked with other leaders in research ethics and research integrity to deliver training programs for researchers, administrators and members of human research ethics committees.

Jeremy has a particular interest in ethical and policy issues related to biobanking and the use of human biospecimens and wishes he had studied History and Philosophy of Science at university to augment his degrees in Anthropology, Theology and Law. A trained educator and lawyer, Jeremy proudly hails from Boston, is father to five sons and visits Tasmania whenever possible.

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# New ways of engaging the public in science



**Dr Cameron Muir,** Fenner School of Environment & Society, Australian National University

Beyond traditional conceptions of academia and policy: cultural engagements with science, environment and the public

Cameron Muir is a writer and historian at the Australian National University and National Museum of Australia. In 2013-14 he was a Fellow at the Rachel Carson Center, Munich. He is the author of The Broken Promise of Agricultural Progress: An Environmental History (Routledge 2014).




# **Dr Martha Sear,** Head Curator, People and the Environment, National Museum of Australia

How can representations of science in history museums locate science in its historical context, and deepen visitors' understanding of its role within cultural change?

Dr Martha Sear joined the National Museum of Australia (NMA) as a Senior Curator in 2005, having previously been a curator at Sydney's Powerhouse Museum and with the five museums in Hay, New South Wales. Her PhD examined the role of exhibitions of women's work in the development of feminism in colonial Australia. She has developed exhibitions and collections on subjects as diverse as taxidermy, the circus, childbirth, women's work, and rural Australian's responses to heat – but enduring interests have been human and animal

interactions and understanding the history of exhibition-making. At the NMA, she has contributed to the Journeys, Landmarks and Spirited: Australia's Horse Story exhibitions.

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# Science, food and labelling



# Dr Heather Bray, University of Adelaide

Consumers increasingly report desire to buy 'ethical' foods but are frustrated by the complexity and limitations of current labeling--what might be done?

Dr Heather Bray is a science communicator and researcher in agriculture and food at the University of Adelaide. Her work explores community understandings of, and attitudes to, the role of science and technology in food production, in particular genetic modification and animal welfare.




#### Dr Trevor Webb, Food Standards Australia New Zealand

The 'science' of food labelling – evidence, impacts and outcomes

Dr Webb is the Principal Social Scientist and Section Manager of Behavioural and Regulatory Analysis at Food Standards Australia New Zealand and has a keen interest in consumer perceptions, attitudes and behaviour in relation to food. He has experience in quantitative and qualitative measurements of public perceptions, attitudes and behavioural intent and the application of these findings

to regulation. Recent research has focused on the use of package information such as claims and nutritional information in consumer purchase decision making. Prior to his employment in FSANZ, Dr Webb was employed by the Bureau of Rural Sciences where he undertook social research on farmer and community attitudes and behaviour in the development of public policy.


# **Communicating climate change**



**Dr Will Grant,** Centre for Public Awareness of Science, Australian National University

Thinking and acting on climate change: from STS and HPS to practical action.

Will Grant is a writer / talker / researcher / thinker at the Australian National Centre for the Public Awareness of Science at ANU. Most of his work has focused on the interaction of science, politics and climate change, and how such interactions are changing with new technology. If you're into that kind of thing, he tweets at @willozap.




#### Mr Ketan Joshi, Infigen Energy

For nearly five years, the technological arm of decarbonisation has met unexpected resistance in the non-scientific form of 'wind turbine syndrome' community concerns. The phenomenon has spurred the urgent need for communicators in industry to examine and adopt new theories of science communication, and reject instinctive 'fact'-heavy combat in the public sphere.

Ketan Joshi is a science graduate from Sydney University, majoring in Neuroscience and Psychology. After working for two years as an analyst, he now works as a Research and Communications Officer at Infigen Energy. He has previously written for ABC Environment and The Guardian. He blogs on energy at <a href="http://etwasluft.blogspot.com.au">http://etwasluft.blogspot.com.au</a> and tweets @KetanJ0.

# Big data and open science



**Professor Rachel A Ankeny,** School of History and Politics, University of Adelaide

'Big' data raises issues about curation, deposit, and sharing: what do we know about past practices/policies and their implications for today's science?

Rachel A Ankeny is the Chair of the National Committee for History and Philosophy of Science, and Professor in the School of History and Politics as well as the Associate Dean/Research for the Faculty of Humanities and Social Sciences at the University of Adelaide. Her areas of expertise include bioethics, food ethics, and history/philosophy of the contemporary life sciences. She was the co-

chair of the 2008 Gordon Research Conference on Science and Technology Policy, and has ongoing research interests in science policy and public engagement in science.




**Associate Professor Gavin Huttley,** College of Medicine, Biology and Environment, Australian National University

Associate Professor Gavin Huttley is head of the Computational Genomics laboratory in the John Curtin School of Medical Research at the Australian National University. He obtained a B.Sc (Hons I) from Macquarie University in Sydney, a PhD in Molecular Population Genetics from the University of California, Riverside and undertook postdoctoral research in the Laboratory of Genomic Diversity, National Cancer Institute (USA). He is a recipient of the Howard Florey Young Investigator award. Associate Professor Huttleys research is focussed on genome decryption — identifying regions of

the genome which encode functions that influence susceptibility to disease — through analysis of genetic variation.


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ENGAGEMENT AND POLICY MAKING