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MEETING DOCUMENT: Meet the Government Advisors -Session - 18 June

He Pito Mata | Awakening the Potential Early Career

Meet the Government Advisors

A facilitated networking session





Friday 18 June 2021

He Pito Mata
Awakening the Potential
Early Career Researcher Wānanga

This session is about meeting people who can help you make your research make a difference.

Unless advisors have signalled a specific interest, this isn't a place to pitch for research funding or talk about career structures – we know these are very important topics and they are covered elsewhere in the wānanga.

Use this opportunity to find out how to connect your ideas and insights to government policy.

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Anne-Gaelle Ausseil

Senior Researcher, Manaaki Whenua **Fellow**, OPMCSA/MfE

Three things she'd like to learn from the ECRs:

- What are your aspirations and drivers for getting into research?
- How can I help you?
- Do you encounter any barriers/difficulties in engaging or communicating your research to policy makers?

Anne-Gaelle completed her studies in France, with a PhD in precision agriculture. She moved to Aoteaora New Zealand with her family in 2002 and has been working for the last 19 years at Manaaki Whenua – Landcare Research. Her research focuses on land-use and climate change impacts on biodiversity and ecosystem services.

She has been an active expert with the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), participating as a coordinating lead author and as a member of the New Zealand delegation in 2019. Her systems thinking and wide-ranging knowledge on land use and ecosystem services, have been used to help shape and develop recent reports by the Ministry for the Environment and Statistics NZ such as *Our Land 2021* and *Environment Acteurog 2019*.

She is currently a senior fellow under the OPMCSA working with the Ministry for the Environment's Chief Science Advisor on frameworks to codify the relationship between nature and people's wellbeing for better decision making.



Michael Baker

Professor of Public Health University of Otago

Three things he'd like to learn from the ECRs:

- What do you think are the most pressing real-world challenges that require science-based solutions in Aotearoa New Zealand?
- Are there particular science questions you would like to answer (or help to answer) at some stage in your career?
- Are there any changes you think would make a career in science in New Zealand even more appealing than it is now?

Michael trained as a medical doctor and has since specialised in public health medicine and epidemiology. He is passionate about opportunities to organise society in ways that promote health, equity and sustainability. He has worked in a range of roles, including being a medical advisor to a Minister of Health, for District Health Boards, and at a Crown Research Institute. More recently he has worked as a researcher and teacher at the University of Otago, Wellington where he is Professor of Public Health.

Michael has a wide range of public health research interests, with a particular focus on infectious diseases, environmental health, and improving housing. His work during 2020–21 has been dominated by assisting with the COVID-19 pandemic response. Michael is a member of the Ministry of Health's COVID-19 Technical Advisory Group and has been the leading advocate for the COVID-19 elimination strategy. He is an active science communicator and member of the Science Media Centre Board.



Grant Blackwell

Chief Scientist
He Pou a Rangi – the Climate Change
Commission

Three things he'd like to learn from the ECRs:

- We are interested in evidence of climate change risks and impacts – can you help us?
- Is there any evidence on the effectiveness of emission reduction opportunities that you think we should know about?
- Is there anything you would like to know about He Pou a Rangi and our work?

Grant is the Chief Scientist with He Pou a Rangi – the Climate Change Commission, a position he has held since December 2019. He has over 20 years' experience working at the interface between theoretical and applied science and public policy.

Grant has a PhD in ecology from Massey University, before spending time at the University of Sydney and Otago University as a research scientist. Before coming to the Commission, he spent 10 years with the office of the Parliamentary Commissioner for the Environment. In his role there, he oversaw a reports on a wide range of topics, from the use of 1080, to the implications of land-use change for water quality, to the design of the national environmental reporting system.

Grant is a firm believer in the importance of applying evidence-based analysis to environmental social and economic problems, and in the value of impartial independent advice in decision-making processes.



Jonathan Boston

Professor of Public Policy School of Government, Victoria University of Wellington

Three things he'd like to learn from the ECRs:

- What do hope to be remembered for when and if you retire?
- How will your research contribute to a more sustainable, fairer, inclusive, compassionate, and peaceful world?
- In your assessment, what are the biggest policy challenges facing Aotearoa New Zealand in the 21st century?

Jonathan has published widely on a range of matters including public management, social policy, climate change policy, tertiary education policy, and comparative government. While at Victoria University of Wellington, Jonathan has served as Director of the Institute for Governance and Policy Studies, and Director of the Institute of Policy Studies. Earlier in his career he worked briefly for the New Zealand Treasury and taught at the University of Canterbury. During 2000-01 he was a member of the Tertiary Education Advisory Commission, and later helped to design, implement and evaluate the Performance-Based Research Fund.

More recently he served as Co-Chair of the Expert Advisory Group on Solutions to Child Poverty, established by the Children's Commissioner. He was awarded a Fulbright Fellowship in 2014 to undertake research on 'Governing for the Future: Bringing Long-Term Policy Issues into Short-Term Political Focus'. Recent research projects include designing institutions to manage the challenge of climate change adaptation, reforms to the welfare state, and reforming Parliament. Jonathan serves on the boards of a number of organisations including Oxfam Aotearoa, and is currently working for the Ministry for the Environment on a half-time secondment from VLIW.



Mike Bunce

Chief ScientistEnvironmental Protection Authority

Three things he'd like to learn from the ECRs:

- What pathways are you hoping to travel on the science landscape can you 'pivot' if needed?
- What are the skillsets you think you need to travel the various science pathways?
- How can the youth voice be better incorporated into science decisions and horizon scanning?

Mike is Chief Scientist at the EPA in Aotearoa New Zealand. Mike completed his undergraduate degree at Lincoln University and his PhD at the Australian National University in the field of virology. In 2006, he moved to Perth, Western Australia, to start his own laboratory. In 2014 he founded Curtin University's Trace and Environmental DNA (TrEnD) lab.

Through his research career Mike has developed and applied DNA techniques to characterise biological communities within a wide variety of biological samples from fossils (ancient DNA) sediment and scat, to seawater and streams. His research focus has spanned many areas of environmental science including; biodiversity assessment, impact assessment, archaeology, extinctions, food-webs, biosecurity, marine conservation and endangered species detection.

In 2019 he stepped away from his academic position into the area of 'science leadership' where he hopes to make a difference. In 2020, through the PMCSA's office, Mike was seconded for six months into the Ministry of Health to work within the COVID-19 directorate. Back at the EPA Mike heads up the 'Wai tūwhera o te Taiao' programme which seeks to engage communities with waterways using eDNA technologies.



Bryan Dunne

Advisor (PAG)
Department of Prime Minister and
Cabinet

Three things he'd like to learn from the ECRs:

- How can we help you better connect with the government policy process?
- In seeking greater use of evidence, how can policy professionals differentiate scientific consensus from group think, or legitimate differences in views from barrow pushing?
- Where do you see emerging areas of risk or opportunity that might be suitable topics for government Long-term Insights Briefings?

Bryan is an advisor in the Policy Advisory Group (PAG) at the Department of Prime Minister and Cabinet (DPMC). He provides advice to the Prime Minister on a range of portfolios including Defence, Conservation, Tourism and Emergency Management.



Gary Evans

Chief Science Advisor

MBIE

Three things he'd like to learn from the ECRs:

- What career advice was provided during your degree/PhD?
- Would some form of professional development have been useful as part of your PhD?
- Is there clarity around career progression as a researcher/scientist/lecturer?

Gary is currently Professor at Victoria University of Wellington and Deputy Director of the Ferrier Research Institute.

Gary has a PhD in organic chemistry and specialises in understanding the role of enzyme function in diseases, with the aim of developing better medicines. A number of potential compounds from his work are in clinical and pre-clinical trial for the treatment of cancers, gout, malaria and microbial infections. Gary is a member of the New Zealand Order of Merit, and a Fellow of the New Zealand Institute of Chemistry. In 2011 he won the inaugural MacDiarmid Award from the Royal Society Te Apārangi for his outstanding scientific research that demonstrates the potential for application to human benefit.

Gary leads the science leadership team at MBIE. He joins Hamish Spencer and Rob Murdoch as part of the cross-government group of departmental science advisors. He is seconded to MBIE for 80 per cent of his time.



Nico Fournier

Team Leader Volcanology, Senior Scientist
GNS Science

Three things he'd like to learn from the ECRs:

- How do you see your role and responsibilities in society as a researcher?
- What are the top three challenges we should be focusing our research/efforts on in New Zealand?
- Where do you see non-university research organisations (e.g. CRIs) contributing to education in New Zealand?

Nico is a volcanologist with 20 years of experience in volcano research, monitoring and science advisory. He currently leads the group at GNS Science that monitors New Zealand volcanoes and provides science advice to the government. His main field of expertise lies in the physical processes that govern volcanic activity, with direct application in how we monitor them.

Nico was educated in France and the UK and worked on volcanoes around the world. Prior to coming to New Zealand in 2009, he researched and monitored volcanoes in the Eastern Caribbean at the UWI Seismic Research Centre, ending up as director of the Montserrat Volcano Observatory and coordinating science advice for evacuations. Since 2009, Nico has been directly involved in volcanic crisis and advice to governments in New Zealand, but also SW Pacific nations such as Vanuatu and Tonga.

What drives Nico is to "Keep people safe from volcanoes".



Seismologist TectonophysicistGNS Science

Three things he'd like to learn from the ECRs:

- Do you envision disparate branches of science converging through modern techniques like machine learning, or do you see them diverging with ever increasing specialisation?
- What can "the establishment" do to optimise the impact of your fantastic research?
- How do we encourage a system in which "early", "mid" and "late" career research is simply viewed as "research" and all knowledge influences decision making?

Bill is a natural hazards scientist at Te Pu Ao, GNS Science. His research spans earthquake and tsunami hazard, including leadership of the MBIE Endeavour "Rapid Characterisation of Earthquakes and Tsunamis (R-CET)" programme and co-leadership of the National Science Challenges (RNC2) "Earthquake and Tsunami" Programme.

He is a member of New Zealand's National Tsunami Expert Panel and the UN Decade National Committee. He has served as science advisor stationed at the Beehive during many earthquakes and tsunamis. Bill also serves the global community through leadership roles in the UN-IOC tsunami framework and is the elected secretary of the Natural Hazards Section of the American Geophysical Union.

Key to his professional mission is the goal of linking together New Zealand's students, communities, scientists and policy makers to empower evidence-based decision making that ultimately leads to a safer future.



Juliet Gerrard

Prime Minister's Chief Science Advisor
OPMCSA

Three things she'd like to learn from the ECRs:

- We're working on infectious diseases and antimicrobial resistance at the moment can you help?
- What should we work on next? Where is there an evidence base that isn't being used to inform government policy and should be?
- How can we help you connect your research to policy?

Juliet's career has included roles in both Crown Research Institutes and universities. Juliet's research background is broad and interdisciplinary, with particular interests in fundamental and applied protein science. She has held an Industry and Outreach Fellowship with Callaghan Innovation, founded a start-up company, chaired the Marsden Council, served on the Board of Directors of Plant and Food Research, and is currently on the Board of Te Papa.

Since Juliet's appointment in 2018 as the Prime Minister's Chief Science Advisor, Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia, she has worked from a base of four founding principles: rigour, inclusivity, transparency, and accessibility. She aims to create a trusted bridge between science, society and government.

She has supported the science and science advisor community to provide advice to the PM, ministers, and the public on a wide range of topics, including the Christchurch mosque shootings, the response to the Whakaari White Island eruption, the cannabis referendum and the COVID-19 pandemic. The Office has released two major reports, *Rethinking Plastics in Aotearoa New Zealand* and *The future of commercial fishing in Aotearoa New Zealand*.



Hayden Glass

Advisor (PAG)
Department of Prime Minister and
Cabinet

Three things he'd like to learn from the ECRs:

- Should we encourage policy debate to be more focused on evidence and less on narrative or anecdata?
- What do you think the big questions about transport and energy are that research might be able to help us with?
- In policy land, how should we respond to uncertainty in analysis and risk?

Hayden is an advisor in the Policy Advisory Group (PAG) at the Department of Prime Minister and Cabinet (DPMC).

He provides advice to the Prime Minister on a range of portfolios including Transport, Energy, Local Government, Broadcasting and Technology.



Kate Hannah

Deputy Director, Equity and Diversity Te Pūnaha Matatini

Three things she'd like to learn from the ECRs:

- What would you love to be working on if you weren't focused on your current project/s, and why?
- What about the policy or advice space scares you, intrigues you, draws you in?
- How do you incorporate your values into your research?

Kate is a cultural historian of science and technology whose research works within and across cultural history, critical science and technology studies, and public understanding of science and technology. She is particularly interested in gender, 'race', eugenics, colonisation and white supremacism in historic and contemporary science and technology cultures and subcultures.

Currently a Research Fellow in the Department of Physics at the University of Auckland, Kate has worked in a range of roles across the University since 2007. Prior to joining the University, Kate worked as a historical consultant in Auckland and the Waikato, including working with Michael King as his research assistant. She is currently focused on online harm, hateful extremism, and disinformation.



Shaun Hendy

Professor, University of Auckland **Director**, Te Pūnaha Matatini

Three things he'd like to learn from the ECRs:

- What are the most pressing issues for ECRs at the moment?
 E.g. availability of funding, inability to travel overseas etc.
- What should research sector leaders be doing right now to make the research environment more favourable for ECRs?
- What are the big issues facing Aotearoa New Zealand that science might be able to contribute to if we sets our sights high?

Shaun is the Director of Te Pūnaha Matatini, a New Zealand Centre of Research Excellence focused on the study of complex systems and networks. He grew up in Palmerston North in Aotearoa New Zealand and received his undergraduare degrees from Massey University. He studied for his PhD at the University of Alberta in Canada from 1994–98.

After his PhD he was awarded a New Zealand Science and Technology Post-doctoral Fellowship, which he took up at Industrial Research Ltd in Wellington. He stayed at Industrial Research until 2013, although took on a joint appointment at Victoria University of Wellington as senior lecturer in the School of Chemical and Physical Sciences from 2003, and as a professor from 2010.

Shaun served as Deputy Director of the MacDiarmid Institute for Advanced Materials and Nanotechnology from 2008–2012 and as President of the New Zealand Association of Scientists from 2011–2013.



Simon Kingham

Chief Science Advisor Ministry of Transport

Three things he'd like to learn from the ECRs:

- Can you help our work on behaviour change to reduce transport GHGs?
- To meet our climate change obligations Aotearoa New Zealand has to 'unlove' the car. Any ideas how we can do this (and allow our politicians to get re-elected!)?
- How can we 'promote' good evidence in a world of fake news?

Simon is Professor of Geography at the University of Canterbury. His research primarily focuses on the impact of the urban environment on individual and community health and wellbeing. Much of his research uses geospatial science including some done through the GeoHealth Laboratory, of which he is the Director. His research incorporates a strong community engagement focus.

Simon spends two days a week working for the Ministry of Transport. The work spans across a range of transport areas including access and mobility, resilience, active travel, urban development, demand management and safety. In addition, Simon's role includes a focus on how to better link the research being done in New Zealand with policy decisions at the Ministry of Transport.



Amanda Kvalsvig

Epidemiologist and Senior Research FellowUniversity of Otago

Three things she'd like to learn from the ECRs:

- What is the change that you want to see?
- What is the immediate next step toward that change?
- What are the structural level barriers to that change?

Amanda has a dual background in clinical paediatrics and epidemiology, and is a Senior Research Fellow in the Department of Public Health at the University of Otago.

Her research activities currently have a strong focus on New Zealand's response to the COVID-19 pandemic; she is the lead researcher of Co-Search, a COVID-19 research collaborative led by Professor Michael Baker. She is also lead researcher of SYMBIOTIC, a newly-funded HRC programme led by Michael Baker which aims to investigate the two-way relationships between infectious disease and long-term conditions.

Amanda's other research interests are centred on the social determinants of health and wellbeing: topics include other infectious diseases (particularly meningococcal disease), breastfeeding, child poverty, and early child development.

She supervises postgraduate students undertaking research on these topics, and also has a methodological interest in the challenges of analysing existing data to develop high-quality evidence for policy and practice.



Geoffroy Lamarche

Chief Advisor Science
Parliamentary Commissioner for the
Environment

Three things he'd like to learn from the ECRs:

- What are the differences between your <u>perceptions</u> of the role of science advisors and what you think the role should be?
- What are the key science questions you think should be addressed globally and in New Zealand – are they the same?
- What do you think Aotearoa New Zealand should focus on at the science-policy interface, to progress the sustainable use and conservation of the ocean around us?

Geoffroy came to Aotearoa New Zealand in 1988 after obtaining a PhD from the University of Grenoble, France. He worked at Victoria University and GNS Science before joining NIWA in 1998 as a marine geophysicist. At NIWA, he led a large research programme focusing on the mechanisms of active geological deformation of the seafloor and the relationships between marine geomorphology and benthic habitats. One key research project was on building a record of past earthquakes along the Hikurangi margin using sedimentological record.

Geoffroy directed the GEBCO Seabed 2030 programme for the South-Pacific Ocean which aimed at mapping the world oceans at an unprecedented resolution by 2030. He has worked in collaboration with researchers from the Southwest Pacific, Europe, USA and Australia. He has been chief scientist on several geophysical voyages in high seas around New Zealand.

His present role at the PCE is to ensure that the investigations are evidence-based, supported by best science practice and contribute to the improvement of the quality of Aotearoa New Zealand's environment.



Ian Lambie
Chief Science Advisor
Justice Sector

Three things he'd like to learn from the ECRs:

- What gets you buzzing about your research?
- In what ways do you want to change the system?
- What can I do to help you on your journey?

lan started university life wanting to be a geologist before dropping out of university and listening to music at the Captain Cook in Dunedin. He began a career in nursing, where his interest in psychology began, through work in acute forensic psychiatry. After training to be a clinical psychologist, he worked with those young people who had offended – described by many as 'too hard' and 'challenging' – before 'accidentally' ending up as an academic. Ian has worked in child and adolescent mental health, childhood trauma and youth justice.

His research and teaching keeps him asking: What do young people really need in Aotearoa New Zealand to improve their life outcomes? Who speaks and advocates for them? Why don't we do what the evidence says we should do?

With a career of clinical work and research in youth justice, Ian then somehow ended up associated with the Beehive, seconded part-time as Chief Science Advisor for the Justice Sector. This added the questions: What do the public and politicians want? What do politicians need to know? Also 'too hard' and 'challenging', he works to nudge government towards system changes aimed at improving the lives of children, adolescents and families involved in justice matters.

In 2020 Ian was made an Officer of the New Zealand Order of Merit for Services to Youth Justice and Clinical Psychology.



Graham Leonard

Volcanic geologist GNS Science

Three things he'd like to learn from the ECRs:

- How do you think government research agencies and universities should best work together?
- What science is exciting you at the moment what's a new frontier that you love to discuss?
- How can science improve natural hazard risk management in New Zealand?

Graham is a GNS Senior Scientist, specialising in volcanic eruption histories, volcano and tsunami hazard mapping, and warning systems research. Graham works closely with NEMA, EQC and CDEM Groups throughout Aotearoa New Zealand.



Melanie Mark-Shadbolt

Deputy Secretary, Tūmatakōkiri (Māori Rights and Interests), Ministry for the Environment

Co-founder, Te Tira Whakamātaki

Three things she'd like to learn from the ECRs:

- How do you or would you like to work with Māori and mātauranga?
- What do you think is vital for leaders in the public and research sectors to be thinking about?
- How can I help you?

Melanie's iwi affiliations are Ngāti Porou, Te Aitanga-a-Hauiti, Ngāti Kahungunu ki Wairarapa, Te Atiawa, Ngāti Raukawa, Ngāti Tūwharetoa, and Te Arawa. Melanie is an Indigenous environmental advocate and a specialist in traditional knowledge issues as they relate to biosecurity, biodiversity and sustainable natural resource management.

As a member of the Ministry's senior leadership team Te Pūrengi, Melanie supports the Ministry's journey towards a greater understanding of Te Ao Māori. Melanie leads a team that covers Treaty settlements, negotiations and relationships, Māori capability, engagement, rights and interests, science, data and mātauranga.

Melanie brings a wealth of experience across the public and private sectors. She also serves on a number of governance and advisory bodies including the board of Project Crimson, B3's (Better Border Biosecurity) Collaboration Council, the Strategic Science Advisory Group for Kauri Dieback & Myrtle Rust, among others. She was previously on the PMCSA's *Rethinking Plastics* Panel, and the Myrtle Rust Governance Group.



Willy-John Martin

Pou Pūtaiao, Director Māori Science and Innovation

MBIE

Three things he'd like to learn from the ECRs:

- What are the important issues of our time?
- How do you know if you are working on the right things for your life and your career?
- What should current leaders be doing now to build a future that you would like to live in, and lead?

Willy-John is the inaugural Pou Pūtaiao, Director Māori Science and Innovation at the Ministry of Business, Innovation and Employment (MBIE). He is from Ngāti Wai, Ngāti Whātua, Ngāti Tamaterā and Ngāti Porou. Willy-John's expertise brings together te Ao Māori, science and government knowledge.

Willy-John holds a PhD from Victoria University of Wellington. He has held research and leadership positions at the Malaghan Institute of Medical Research in Wellington, and at the Walter and Eliza Hall Institute of Medical Research at Melbourne, where he established the institute's first Indigenous research in its 100-year history.

More recently, he was the Manager Vision Mātauranga and Capacity Development for the Science for Technological Innovation National Science Challenge at Callaghan Innovation. While in that role, he co-authored the seminal report, A Guide to Vision Mātauranga, as the deputy Chair of Rauika Māngai.



Caroline McElnay

Director of Public Health

Ministry of Health

Three things she'd like to learn from the ECRs:

- Why did you choose your current research topic?
- What practical application could your research have?
- What support do you need to help ensure your research will help New Zealanders?

Caroline has been the Director of Public Health at the Ministry of Health since February 2017, having previously worked in Hawke's Bay as a public health physician, medical officer of health, and member of the Hawke's Bay District Health Board executive team.

She has worked on many public health issues over the years but has a long-standing interest and experience in immunisation as well as in the use of health intelligence to describe and develop health improvement initiatives which promote health equity. In her role as Director Public Health she works with colleagues across the Ministry of Health to ensure that public health issues are a high priority.

Caroline has been involved in the response to COVID-19 since 6 January 2020 when the Ministry of Health was first notified by the World Health Organisation about a novel coronavirus in China. Since then she has been part of the team advising government on the response to COVID as well as working with Public Health colleagues across the country to develop protocols and guidance. She has also fronted many media briefings.



Tracey McIntosh

Chief Science AdvisorMinistry of Social Development

Three things she'd like to learn from the ECRs:

- What do you think should be the intent of research?
- Why does methodology matter?
- What is a piece of transdisciplinary research you would like to be involved in and why?

Professor Tracey McIntosh MNZM (Tūhoe) is a Professor of Indigenous Studies at the University of Auckland and Co-Head of Wānanga o Waipapa (The School of Māori Studies and Pacific Studies).

She is the Chief Science Advisor to the Ministry of Social Development, and a Commissioner of the Criminal Cases Review Commission.

She was previously Director and Co-Director of New Zealand's Māori Centre of Research Excellence Ngā Pae o te Māramatanga (2007–2010, 2014–2017). Her recent research focuses on incarceration (particularly of Indigenous peoples), social harm minimisation, inequality, and justice.



Stuart McNaughton

Chief Education Scientific AdvisorMinistry of Education

Three things he'd like to learn from the ECRs:

- What interests or concerns you about the relationships between evidence and policy?
- Education policy is broad and connects with many other policy areas are there specific areas you want to work on?
- How can we help?

Stuart is Professor of Education and Director of the Woolf Fisher Research Centre at the University of Auckland. His academic focus is children's learning and development; literacy and language; the design of effective education for culturally and linguistically diverse populations, and cultural processes in development.

His nine books and numerous research articles in educational and developmental science are in areas of children's development in family, early education and school settings; instructional designs and equity outcomes in education; and the use of design based approaches in large scale interventions with schools.

He has served on numerous international and national advisory bodies including the International Reading Association's Literacy Research Panel. In 1998 he established the Woolf Fisher Research Centre at the University of Auckland and was its inaugural Director. He holds a visiting position as a Distinguished International Professor at East China Normal University (Shanghai) as. In 2011 he was made Officer of the New Zealand Order of Merit, and has been the Chief Education Scientific Advisor since 2014.



Rob Murdoch

Departmental Science Advisor MBIE

Two things he'd like to learn from the ECRs:

- Do you feel that you have the appropriate training/support needed to undertake research in non-university institutions/organisations?
- Do you feel enabled to meet the changing societal expectations regarding input in research priorities and engagement, especially with respect to Māori?

Rob is currently NIWA's General Manager—Research, responsible for overseeing all of NIWA's research, and the operation of its research vessels.

His research experience includes biological oceanography, fisheries, ocean productivity, the environmental effects and management of marine resource use (aquaculture, oil and gas exploration) fiord ecology, coastal reef and fish surveys, seabird ecology, marine natural products, and marine invertebrate taxonomy. His field research has ranged from the tropics to the Southern Ocean.

Rob provides input primarily into science investment processes, and science policy development and implementation, along with advice into other areas of MBIE such as economic development and Crown Minerals. He works closely with other science advisors, especially within the Natural Resources Government agencies.



Ganesh Nana

Chair

Productivity Commission

Three things he'd like to learn from the ECRs:

- What is your research kaupapa?
- What do you bring to the research table?
- What would be your dream research project/challenge/job?

Ganesh is a first-generation New Zealander, born, bred, and educated in Te Whanganui-a-Tara. His interest in economics originally emanated from his love of numbers, which in turn arose out of his passion for cricket.

Ganesh took up the position of Chair of the Productivity Commission Te Kōmihana Whai Hua o Aotearoa after 22 years at the consultancy Business and Economics Research Limited (BERL). His work at BERL covered a broad range of projects. His highlight was efforts in strengthening relationships with Māori entities and organisations and building an understanding of te ōhanga Māori. In 2018 he was appointed a member of the Government established Welfare Expert Advisory Group, which reported back in 2019 with Whakamana Tangata – Restoring Dignity to Social Security in New Zealand.

Prior to BERL, Ganesh acted as primary caregiver to his pre-school children while also employed as part-time lecturer at Victoria University. Before children, Ganesh managed to explore some parts of the world — including working in England as a researcher at the House of Commons gaining experience with IMF and OECD economic models. On his way home to Aotearoa he spent several months visiting family and ancestral lands across India. Ganesh believes economics is fundamentally about people and is best reflected in our collective role as kaitiaki o taonga.



Sacha O'Dea

Advisor (PAG)
Department of Prime Minister and
Cabinet

Three things she'd like to learn from the ECRs:

- How do you think your research could inform government policy development?
- COVID-19 has reinforced the value of science communication.
 What have you done to develop your skills to communicate your research?
- How can we help you better connect with the government policy makers?

Sacha is an advisor in the Policy Advisory Group (PAG) at the Department of Prime Minister and Cabinet (DPMC).

She provides advice to the Prime Minister on a range of portfolios including Education; Research, Science and Innovation; Community & Voluntary Sector; and Diversity, Inclusion and Ethnic Communities.



Caroline Orchiston

Associate Professor University of Otago

Three things she'd like to learn from the ECRs:

- What do you enjoy most about your research?
- Are you getting enough opportunities for professional development during your research?
- Where do you see yourself in five years? What are the barriers and opportunities for reaching your goal?

Caroline's background in both earth and social sciences involves research on aspects of tourism disaster resilience and recovery, community and business resilience, and scenario planning for impacts to critical infrastructure and emergency management during earthquake disasters.

Her PhD (completed in 2010) and Postdoctoral research (2011-2013) investigated tourism in areas of high seismic risk (Southern Alps and Canterbury, New Zealand), focusing on pre-disaster planning and preparedness (Alpine Fault zone) and post-disaster impacts and recovery amongst tourism enterprises and stakeholders (Canterbury earthquake sequence). Since 2010, Caroline has also been involved in a longitudinal study of community preparedness and awareness to natural hazards in Washington State, USA.

Caroline is an Associate Director with QuakeCoRE (NZ Centre for Earthquake Resilience) and a co-theme leader on Resilience to Nature's Challenges. She is also Science Lead for AF8 [Alpine Fault magnitude 8], which is focused on translating science to practice for improving earthquake response and community resilience.



David Pomeroy

Lecturer in Education, University of Canterbury **Fellow**, OPMCSA

Three things he'd like to learn from the ECRs:

- What reflections do you have on being 'streamed' into low or high classes at school?
- What stereotypes do you encounter about people in your discipline?
- Who should know about your work, but doesn't?

David uses approaches from sociology and gender studies to examine the relationship between who we are (in particular our social class, ethnicity and gender) and which school subjects we like and do well in. As a former secondary mathematics teacher, he is especially interested in educational inequalities in mathematics learning and in ways of teaching that enable more students to experience curiosity, joy, struggle and success in mathematics.

One of his current projects involves collaborating with secondary mathematics departments that are transitioning from 'streaming' to 'mixed ability' classes. 'Streaming' is controversial among parents, teachers and policy-makers, and has lurched David out of his academic comfort zone. He is on a journey of learning how to communicate well with policy makers, iwi, media, teachers, whānau, and of course children.



James Renwick

Commissioner He Pou a Rangi – the Climate Change Commission

Three things he'd like to learn from the ECRs:

- What drew you to a science career?
- Where would you like to be in 10 years?
- What science communication channels do you use?

James is a commissioner for Climate Change Commission. He is a leading climate scientist with a strong national and international reputation, and four decades of experience in weather and climate research.

His appointment as a Lead Author and Coordinating Lead Author on three Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC) demonstrates his expertise.

He has also been involved in the governance of the World Climate Research Programme for the past eight years. He was awarded the 2018 Prime Minister's Prize for Science Communication.



Justin O'Sullivan

Professor, Liggins Institute, University
of Auckland
Fellow, OPMCSA

What he'd like to learn from the ECRs:

- Justin is open to learning about anything you'd like to share with him.
- He would be happy to share his experience as a researcher doing a fellowship aligned to the OPMCSA.

Justin is a Professor in the Liggins Institute at the University of Auckland. His current research focuses on a holistic approach to understand genomes and cell structure formation, function, and inheritance. The goal is to interpret the relationships between what a cell's DNA codes for (the genotype) and what we actually see (the phenotype) in terms of genome biology. To do this he uses and develops methods and technologies from molecular biology, bioinformatics, and computational biology to integrate the spatial organisation of genomes with measures of their function. He also has a work programme about the microbiome and the potential use of microbes as therapeutic treatments.

Justin is a visiting fellow with the OPMCSA, initially investigating antimicrobial resistance and threats from infectious diseases.



Kay Saville-Smith

Chief Science Advisor
Ministry of Housing and Urban
Development

Three things she'd like to learn from the ECRs:

- What are the areas of research you think provide the most opportunities for a research career?
- What do you think the big questions around housing that research might be able to help us with?
- Are there aspects or implications of your research that you think have implications for and might improve housing policy and practice that you feel are overlooked?

Kay is director of the Centre for Research, Evaluation and Social Assessment (CRESA). A sociologist, her career in housing research stretches from the late 1980s. She is the Chief Science Advisor for the Ministry of Housing and Urban Development and contributed to the Ministerial Advisory Group on Warm Homes, the Ministry Advisory Group on Housing & Urban Development, the Office for Senior Citizens' Independent Advisory Group for the Better Later Lives Strategy, and the Commission for Financial Capability's review of retirement incomes.

She co-leads with Dr Fiona Cram (of Ngāti Pāhauwera) the Affordable Housing for Generations research. Past research includes: Finding the Best Fit – Housing, Downsizing and Older People in a Changing Society; Resilient Communities – Doing Better in Bad Times; Good Homes – Older people's repairs and maintenance needs in the context of ageing in place; the Sustainable Neighbourhoods Stream for BEACON Consortium; Household Energy End-Use Project undertaken by BRANZ; and Life When Renting in the Ageing Well National Science Challenge. See www.goodhomes.co.nz



George Slim
Consultant
OPMCSA

Three things he'd like to learn from the ECRs:

- Why did you get involved in research?
- What do you, you personally, hope to get out of it?
- How can I help you?

George provides policy advice to the PMSCA and maintains a presence in Wellington for the office.

George is a consultant working with organisations to provide policy advice, access to science knowledge, assist with funding sources, and consulting on strategy in the management of research and intellectual property. He has over 30 years' experience in the science system in New Zealand and offshore. He has worked in academia, the government research sector and government.

George obtained his PhD in chemistry from the University of Otago then left for work in the UK, at the University of Cambridge and the Medical Research Council's Laboratory for Molecular Biology.

He returned to New Zealand as a researcher at the Crown Research Institute, Industrial Research Ltd, where he stayed for 11 years. Since then he has been with New Zealand Trade and Enterprise and the Ministry of Research Science and Technology before becoming a consultant.



Simon Upton

Parliamentary Commissioner for the Environment

Three things he'd like to learn from the ECRs:

- What environmental issue in New Zealand receives the most excessive attention given the risks it poses – and could the way research is communicated change that?
- What environment issue do you consider receives the least attention given the risks it poses – and could the way research is communicated change that?
- In respect of what public policy debate in New Zealand is science's contribution most seriously missing in action?

Simon Upton was sworn in as Parliamentary Commissioner for the Environment for a five-year term on 16 October 2017.

Simon is a Fellow of the Royal Society of New Zealand and a Rhodes Scholar, with degrees in English literature, music and law from the University of Auckland, and an MLitt in political philosophy from Oxford University. He was sworn in as a member of the Privy Council in 1999.

A Member of Parliament between 1981 and 2000, Simon held a variety of ministerial portfolios including environment, research, biosecurity, health, and state services between 1990 and 1999. After leaving Parliament, Simon moved to Paris to chair the Round Table on Sustainable Development at the Organisation for Economic Co-operation and Development (OECD). In 2005, he returned to New Zealand to pursue a number of private sector roles while continuing to chair the Round Table. In April 2010 he returned to the OECD full time as Environment Director, a post he held for seven years until coming back to take up the role of Parliamentary Commissioner for the Environment.



Arati Waldegrave

Advisor (PAG)
Department of Prime Minister and
Cabinet

Three things she'd like to learn from the ECRs:

- What do you think are the big questions around housing (particularly affordability and how the market operates) that research might be able to help us with?
- What are the big scientific developments or challenges that you think policy and decision makers are unaware of, or aren't paying enough attention to?
- Is there anything about how government works that you would like to understand better?

Arati is an advisor in the Policy Advisory Group (PAG) at the Department of Prime Minister and Cabinet (DPMC). She provides advice to the Prime Minister on a range of portfolios including Housing & Urban Development, Social Housing, Workplace relations and safety.



Tania Warburton

Advisor (PAG)
Department of Prime Minister and
Cabinet

Three things she'd like to learn from the ECRs:

- How can we help you better connect with the government policy process?
- How can we help you understand how government works?
- How do you think your research could inform government policy development?

Tania is an advisor in the Policy Advisory Group (PAG) at the Department of the Prime Minister and Cabinet (DPMC). She provides advice to the Prime Minister on a range of portfolios including Cyber Security, Constitutional Issues, and Justice. She is also the legal adviser.



Siouxsie Wiles

Associate Professor University of Auckland

Three things she'd like to learn from the ECRs:

- What are the barriers you have faced in your career so far?
- What would help you succeed in the future?
- What do you think the government should be doing to support research and early career researchers in New Zealand?

Associate Professor Siouxsie Wiles studied medical microbiology at the University of Edinburgh, followed by a PhD in microbiology at the Centre for Ecology and Hydrology in Oxford and Edinburgh Napier University. She spent almost a decade at Imperial College London, before relocating to the University of Auckland as an HRC Hercus Fellow in 2009.

She has won awards for both her commitment to the ethical use of animals in research and for science communication. In 2017 she published her first book, 'Antibiotic resistance: the end of modern medicine?' and in 2019 was appointed a member of the New Zealand Order of Merit for services to microbiology and science communication.

During COVID-19 Dr Wiles joined forces with *The Spinoff* cartoonist Toby Morris to make the science of the pandemic clear and understandable. Their award-winning graphics have been translated into multiple languages and adapted by various governments and organisations around the world.



Prue Williams

General Manager Science InvestmentsMBIF

Three things she'd like to learn from the ECRs:

- What experiences got you into research?
- What parts of your research lifestyle make you happy?
- If you could ask for one thing to help your research career, what would you ask for?

Prue Williams is General Manager, Science System Investment and Performance for the Ministry of Business, Innovation and Employment (MBIE). She currently has responsibility for making, managing and reviewing scientific investments aimed at meeting Aotearoa New Zealand's economic, social and environmental goals. This includes oversight of the Endeavour Fund, the National Science Challenges, the Strategic Science Investment Fund and other research funds.

Prue has a B.Agr. Sci (Hons) from Lincoln University and a PhD in soil science from Massey University. She was a practising scientist for about 20 years, initially as the first female District Scientist in New Zealand and then as a soil scientist. Her main research interest was helping farmers develop sustainable land management practices particularly managing nutrients like nitrogen.

She moved into research management when she was appointed as General Manager Research for one of the Crown Research Institutes. Prior to joining MBIE she was Chief Science Advisor to the Foundation for Research, Science and Technology and the Ministry of Science and Innovation.



Tom Wilson

Professor

University of Canterbury

Three things he'd like to learn from the ECRs:

- What inspires you to do the research you do?
- How can you be best supported to contribute rigorous, relevant and trusted advice to society and government?
- How could the science system be transformed to better meet the needs of society?

Tom's research expertise is in disaster risk and resilience. He specialises in natural hazard risk assessment – essentially trying to understand how society may be impacted by natural hazards, what steps we can take to increase our resilience, and communicate this knowledge to support evidence-informed decision making.

Tom co-leads several major research programmes, including co-leading the Rural Theme of Resilience to Nature's Challenges (one of the 10 MBIE National Science Challenges). He is heavily involved in research-policy-practice collaborations to address major natural hazard risks, such as AF8 (Alpine Fault) and DEVORA (Auckland Volcanic Field).

He provides science advice to a range of organisations across central and local government and the private sector, including EQC, NEMA, MPI and Lifeline (critical infrastructure) organisations, Office of the Prime Minister's Chief Science Advisor, and the NZ Volcano Science Advisory Panel. This has included several major disaster responses: 2010-11 Canterbury earthquake sequence, 2016 Kaikōura earthquake, and 2019 Whakaari White Island eruption.