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ROYAL  
SOCIETY  
NEW SOUTH WALES

## The Bulletin 500 December 2025

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### A message from the President

Dear <<First Name>> <<Last Name>>

In this, the final Bulletin of the year, it is worth noting just how active the Society has been. Across our four branches, 45 events have been scheduled. In Sydney, there were 25, including nine OGMs held at the State Library (including post-talk dinners) or online, two visits, one award lecture, three Ideas@theHouse (where Her Excellency, The Governor hosts talks with our support), the Annual Forum (also held at Government House), and four lunchtime Provocations and Inspirations talks at the Union, University and Schools Club (UUSC), as well as the Annual Dinner and four events held with affiliated organisations. In the branches, there have been 5 in the Hunter, 10 in the Southern Highlands, 1 in New England North West, and 4 in Western NSW. By the end of 2025, these will have generated 35 full-length YouTube videos and a further 6 'shorts'. This is a huge achievement for our fellows and members who volunteer their time.



On 29 October, I joined the New England and North West Branch for Dr Kyle Mulroony's address on '[Building resilient futures: Understanding rural youth through the lens of place, risk and Innovation](#)'. The event brought together major players in the space, including the Mayor of the Armidale Regional Council, and those engaged in preventing youth crime. The quality of debate and engagement with the community was outstanding. On 30 October, I called on the Vice-Chancellor of the University of New England, Professor Chris Moran, who promised support for the Branch. I was able to visit the special collections at

the Dixson Library, where the RSNSW collection has its own room. The Dixson Library has become the major repository of our collection. They hold the journals that the Society receives in exchange for our own hard-copy journal.

On 30 October, the Hunter Branch hosted the '[Male Infertility Public Forum](#)' with the Hunter Medical Research Institute. They host another meeting on 4 December, with Adjunct Professor Warwick Giblin discussing '*Renewable Energy 101: What is being delivered in NSW's first renewable energy zone*'. The Southern Highlands Branch heard from Professor Andrew Dempster on '*Mining Water on the Moon*' on 21 August and from Professor Fred Watson on '*Tomorrow's Universe — the discoveries that will change science*' on 18 September. On 20 November, Dr Jessica Milner Davis addressed the branch on '[Laughing at other people's pain](#)'. The Western Branch heard from Professor Geoff Gurr on 20 August and, on November 5, from Professor Jane Quinn on '[Optimising yield, growth, and use of the '5th quarter' for Australian agricultural food access and market security](#)'. Both have been strong supporters of the Branch.

Finally, we had a most successful Forum on 6 November on the topic of '[AI: The Hope and The Hype](#)'. Fellows and members from across the branches and from the Learned Academies joined others from civil society and start-ups at Government House for an extraordinary day of debate. Our Patron, Her Excellency the Governor, was characteristically articulate on the need for governance of AI; The Hon. Victor Dominello talked vividly about the need to accelerate the speed of adoption of digital government, and we heard Professor Pascal van Heytenriyck, a world-renowned scholar, on what is happening at the cutting edge. The legal panel discussed the needs and complexities of appropriate regulation; another panel talked vividly about applications of AI in creating community; we heard from speakers from the Commonwealth Bank, from agriculture and from medicine about applications and robotics using AI. Finally, the NSW Chief Scientist and Engineer, Professor Hugh Durrant-Whyte, led a panel examining where AI would be in 2, 10 and 20 years. The quality of the debate was outstanding and very timely. I must thank Professor Sally Cripps for her expert curation of the event, and Emeritus Professors Lindsay Botten and Graham Town for their extraordinary work behind the scenes. I hope we will attract new members and fellows from the audience.

On November 12, Professor Katharine Boydell, recipient of the inaugural Milner interdisciplinary award, talked about '[Arts-based community interventions for Youth Mental Health](#)'. In our final meeting for the year, at the State Library on 3 December, our former president, Don Hector, will discuss '*A Future Made in Australia*.'

I list this extraordinary amount of activity in part to remind us of how much is involved in our current activities. The program is very demanding. Each of the branches is involved in coordinating events, attending them, managing the audience and making our fellows and members feel welcome. Lindsay Botten, the Vice-President, carries the major tasks, not only for the Sydney Branch but for all the branches. It is he who prepares the videos for our YouTube channel, where we have our broadest impact, including internationally. We are active on social media.

Each of our face-to-face events has been well attended and lively; our online presence continues to grow. We are working towards evaluating our overall spread of topics, of gender and ethnicity in speakers and of types of function. For 2026, we will be trialling a model in which the bi-monthly face-to-face meetings in Sydney will be in a panel format,

rather than a lecture. We have further face-to-face meetings when universities, the Governor, or the UUSC are hosts. Our online OGMs may have presentations in a panel or lecture format. We expect that some of this year's award winners, to be announced at this year's final OGM, will be presenters in 2026.

Is this level of activity sustainable? Without Lindsay, it would not be. I cannot express my gratitude sufficiently. We do need to consider how to spread the workload. Are we doing too much? I think not, but we need more help.

I should also note that the Royal Society of NSW Library has now been distributed. I am very grateful to the Librarian Stephen Garton for leading on this process, which has been an extended one. As I said above, the Dixson Library at UNE is the major repository. The State Library of NSW and the Fisher Library of the University of Sydney hold part of our collection, and the State Library holds our Archive. It was disappointing that many books remained after the libraries took their share. I am grateful to Susan Pond for arranging for them to be sold through Sydney Rare Books.

I do urge you all to put the date of 27 February in your diary when we will gather in the Stranger's Room at the Parliament House for our annual Awards Dinner. Our awards for 2025 will be announced at the OGM on 3 December. We have implemented two new awards in recent years – one was provided by Dr Jessica Milner Davis FRSN for interdisciplinary work, while the second, by an eminent expatriate, Professor Herbert Huppert FRS FRSN, will be for an Australian undertaking early-career research in the UK. We also hope to introduce awards in new fields, such as artificial intelligence, soon.

I wish you all the very best for the rest of this year and the New Year, and I look forward to our first event of 2026, when Dr Abul Rizvi will discuss '*How large should Australia be?*' with Professor Richard Holden.

Christina Slade FRSN

[President](#)

[Royal Society of New South Wales](#)

## For your diary

The Society's annual events program is published in the online [Events Calendar](#), which is updated regularly.

- [1337th Ordinary General Meeting and Open Lecture](#) (Wednesday, 3 December 2025, 6.00–7.30 pm AEDT, Michael Crouch Room, Mitchell Building, State Library of NSW) *A Future Made in Australia*, Dr Donald Hector AM FRSN, Principal, Grassick SSG Pty Ltd
- [Hunter Branch Meeting 2025-5](#) (Thursday, 4 December 2025, 5.30 pm for 6.00 – 7.00 pm AEDT, NEX, Newcastle Exhibition and Convention Centre, 309 King Street, Newcastle West, NSW 2302) *Renewable energy 101: What is being delivered in NSW's first renewable energy zone?* Adjunct Professor Warwick Giblin FRSN FEIANZ, Principal, ESE Justice
- [1338th Ordinary General Meeting and Open Lecture](#) (Wednesday, 11 February 2026, 6.00–7.30 pm AEDT, Michael Crouch Room, Mitchell Building, State Library of NSW) *How many Australians should there be?*, Dr Abul Rizvi PSM FRSN, Former Deputy Secretary, Department of Immigration, and Scientia

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## News

### **Society Member, Jacinta Martin, leads PFAS impact study on male mice fertility**

Society Member, and winner of one of the Society's Bicentennial Early Career Research and Service Citations in 2023, **Dr Jacinta Martin** of the University of Newcastle has just co-authored a study published recently in *Communication Biology* showing that short-term exposure to PFAS can significantly disrupt male fertility and embryonic development in mice. Her work featured in an [article in the Sydney Morning Herald](#) on 29 October 2025.



Dr Martin is a Lecturer in the College of Engineering, Science and Environment at the University of Newcastle and a member of the Infertility and Reproduction Research Program at the Hunter Medical Research Institute.

In the study, the Newcastle researchers exposed male mice to PFAS levels found in water samples from the Williamstown contamination site near Newcastle. Even at these environmentally relevant concentrations, the mice exhibited reduced levels of testosterone and dihydrotestosterone, both of which are critical for sperm production. Although the sperm appeared normal, they carried molecular changes that altered gene expression in embryos fertilised with them, potentially affecting birth weights and long-term health.

The study found that some hormonal effects were more pronounced at lower PFAS doses, challenging assumptions that environmental dilution reduces risk. It also suggests that paternal exposure alone may impact offspring, even if the children are not directly exposed. These findings align with global research linking PFAS to fertility issues and raise concerns about broader ecological impacts. Separate research found high PFAS levels in possums and platypus, indicating widespread contamination of Australian ecosystems. Funded by the NHMRC, the study underscores the need for stricter regulation and further investigation into the generational effects of PFAS exposure.

The Society congratulates Dr Martin and her colleagues on this study and wishes her every success in her future research. To read more, please see the [SMH article](#).

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### **Angela Nickerson FRSN elected as a 2025 Academy of Social Sciences Fellow**

The Royal Society of NSW was delighted to learn that **Professor Angela Nickerson FRSN FASSA**, of UNSW Sydney and a former Edgeworth David Medallist of the Society, was recently elected as a Fellow of the Academy of Social Sciences in Australia.



Angela Nickerson is a clinical psychologist who undertakes research into the psychological and social mechanisms underlying refugee mental health. Her research program draws on longitudinal, experimental and intervention studies to identify key drivers of psychological symptoms in refugees. Her research has advanced theoretical models of refugee wellbeing, bringing together previously siloed areas of research to propose causal pathways by which refugees' environment, psychological skills and social context can influence mental health. Angela's empirical work has focused on systematic testing of pathways laid out in these theoretical models. She has elucidated the impact of restrictive immigration policies such as temporary protection, immigration detention and offshore processing on refugee mental health. She has also undertaken basic research to examine the role of key psychological processes, such as moral injury, emotion regulation and self-efficacy on refugee wellbeing. This experimental and longitudinal work has provided a platform for the development and testing of novel psychological interventions for post-traumatic stress disorder in refugees.

Her impact on the field is demonstrated by the awards and prizes she has received, including the International Society for Traumatic Stress Studies Chaim and Bela Danieli Award (2017), the Edgeworth David Medal from the Royal Society of NSW (2018), and the Australian Association of Cognitive and Behavioural Therapies Mid-Career Award (2023). Angela was elected as a Fellow of the Royal Society of NSW (2019) and as President of the International Society for Traumatic Stress Studies (2024), for which she also served on the Board of Directors (2018 to 2025). Angela has received numerous research fellowships throughout her career, including the NHMRC Investigator Leadership Grant, NHMRC Clinical Career Development Fellowship, and NHMRC Clinical Early Career Fellowship.



Angela's work has had a significant impact on policy and practice with refugees. Her research was used to inform the repealing of Temporary Protection Visas for refugees in 2023, and increased community awareness about the mental health effects of restrictive immigration policies. She works closely with leading Australian and international refugee settlement and clinical services to increase access to evidence-based care for refugees and to inform targeted interventions at an individual and community level.

The Council of the Society extends its warm congratulations to Professor Nickerson on this latest recognition of her outstanding research.

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## Society Fellow, Martina Stenzel, awarded Batteard-Jordan Polymer Medal

**Scientia Professor Martina Stenzel FRSN FAA**, of the UNSW School of Chemistry, has been awarded the Batteard-Jordan Polymer Medal of the Royal Australian Chemical Institute.

The Batteard-Jordan Polymer Medal is the highest award of the RACI Polymer Division and is awarded for outstanding achievements and contributions to polymer science in Australia. Only twelve people have received the Polymer Medal since the creation of the Polymer Division close to 60 years ago; awarding this medal to Professor Stenzel reflects the exceptional contribution to research, service and leadership in polymer science in Australia that she has made across her career.



Martina Stenzel studied chemistry at the University of Bayreuth, Germany, before completing her PhD in 1999 at the Institute of Applied Macromolecular Chemistry at the University of Stuttgart, Germany. She started as a postdoctoral fellow at UNSW in 1999 and is now a Scientia Professor in the School of Chemistry and an ARC Laureate Fellow. Currently, she is the editor-in-chief of *Materials Horizons* and a Fellow of the Australian Academy of Science and the Royal Society of New South Wales. Her research interest is focused on the synthesis of functional nanoparticles for drug delivery applications. She is interested in how nanoparticles design affects the interface of these drug carriers with the biological environment.

The Council of the Society extends its warm congratulations to Professor Stenzel on the RACI's award in recognition of her career achievements.

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## Vale Thomas Borody FRSN

Thomas Julius Borody passed away on 6 October 2025.

Few know his discoveries changed the lives of millions—more than did any contemporary Australian.

Peptic ulcers were the medical tsunami of the 20th century. Barry Marshall and Robin Warren received the Nobel Prize for Medicine in 2005 for recognising the association of *Helicobacter pylori* with duodenal and gastric ulcers at a time when all believed in the acid/pepsin digestion theory. They were unable to eradicate the bacteria, which would

have proven causation. Borody discovered that the combination of bismuth, metronidazole and tetracycline eradicated *H. pylori* and cured 96 per cent of ulcers. Some 25 years later, it was estimated his triple therapy had saved 18,000 lives, 260,000 life years, 33,000 productive life years and more than \$10 billion!



Borody's second discovery was the critical role played by the gut microbiome in health and disease. In 1989, he showed the benefits of faecal microbiome transplantation (FMT) in a group of recipients with *Clostridium difficile* (a common life-threatening infection), inflammatory bowel disease and irritable bowel disease. FMT now cures *C. difficile* in over 90% of cases. Over the subsequent 25 years, 14,000 FMTs have been performed at Borody's Centre for Digestive Diseases, with Borody recognised as the 'father' of microbiome management.

The third discovery was triple antibiotic therapy in Crohn's disease, claiming a cure by reducing the load of *Mycobacterium avium s. Paratuberculosis* (MAP).

His focus through the COVID pandemic was on developing triple therapy (ivermectin/doxycycline/zinc), consolidating ivermectin as the most effective anti-viral therapy.

Tom Borody never shirked controversy: science and patient outcome always trumped narrative. Two of the ten most cited papers in the Medical Journal of Australia over 90 years were by Borody; his DSc by thesis from full-time private medical practice was unique in contemporary Australia.

No patient was unimportant.

Emeritus Professor Robert Clancy AM FRSN

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## Society Fellow, David Cook, awarded the 2025 ATSE President's Medal

Society Fellow, **Dr David Cook FRSN FTSE**, is the winner of the Academy of Technological Sciences and Engineering (ATSE) President's Medal for 2025.

This recognises his efforts to modernise the Fellowship elections. He is a former member of the ATSE Council, Board and Vice-President Membership. Over more than 13 years, he has reviewed hundreds of Fellowship nominations during the ATSE Fellow election process. The Medal recognises his instrumental role in modernising and improving the processes for the election of new Fellows, thereby helping to shepherd in a new era of diverse, talented, and impactful Fellows into the Academy.



The Council of the Society warmly congratulates Dr Cook on this award.

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## Forum 2025: Video recordings and photographs now available

The Royal Society of NSW and the Learned Academies Forum for 2025, on the theme of '[AI: The Hope and the Hype](#)', was hosted at Government House Sydney, by Her Excellency the Honourable Margaret Beazley AC KC on 6 November 2025.

Videos of all sessions are now available from the [Forum 2025 playlist](#) on our YouTube channel.

A [gallery of images](#) from the Government House event is also available for inspection and downloading from our SharePoint site.



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## NSW Premier's Prizes for Science and Engineering 2025

The Council of the Royal Society of New South Wales was delighted to learn that four of its Fellows, Members, and Award Winners were named as recipients of the 2025 NSW Premier's Prizes for Science and Engineering, announced at a ceremony held at Government House, Sydney, on the evening of Wednesday, 19 November 2025.

The awardees are:

**Payne-Scott Professor Nalini Joshi AO FRSN FAA**, Professor of Applied Mathematics at the University of Sydney and the winner of the 2024 RSNSW Pollock Award in the Physical Sciences and Mathematics, was named the **2025 NSW Scientist of the Year**.

**Professor Anita Ho-Baillie FRSN FAIP FRSC**, the John Hooke Chair of Nanoscience at the University of Sydney and the winner of the 2022 RSNSW Warren Prize in Engineering, was awarded the **NSW Premier's Prize for Excellence in Mathematics, Earth Sciences or Physics**.

**Scientia Professor Kaarin Anstey FRSN FASSA FAHMS**, Director of the UNSW Ageing Futures Institute and the 2023 inaugural winner of the RSNSW Award in the Social and Behavioural Sciences, was awarded the **NSW Premier's Prize in Medical Biological Sciences**.

**Dr Jennifer Matthews**, a Chancellor's Postdoctoral Research Fellow at the University of Technology and the winner of one of the 2024 RSNSW Bicentennial Early Career Research and Service Citations, received the **NSW Early Career Researcher (Biological Sciences) of the Year Award**.



### NSW Scientist of the Year 2025

**Payne-Scott Professor Nalini Joshi AO FRSN FAA — University of Sydney**

Professor Nalini Joshi is a pioneering mathematician renowned for her transformative work in integrable systems. She introduced geometric and asymptotic methods to study nonlinear differential and difference equations, advancing understanding of singularity structures and critical models. Her research spans continuous and discrete systems, with applications from subatomic particle collisions to subway operations.



Joshi was the first woman to hold the Chair of Applied Mathematics at the University of Sydney and served as Vice-President of the International Mathematical Union (2019–22). A passionate advocate for women and minorities in STEM, she co-founded the Science in Australia Gender Equity (SAGE) program.

Born in Burma, she moved to Australia in the 1970s, later earning her PhD at Princeton. With over 120 publications and \$7 million in grants, she has mentored 30+ researchers and received numerous honours, including the George Szekeres Medal and Officer of the Order of Australia.

## **Premier's Prize for Excellence in Mathematics, Earth Sciences, Chemistry or Physics**

### **Professor Anita Ho-Baillie FRSN FAIP FRSC — University of Sydney**

Professor Anita Ho-Baillie is a global leader in solar cell technology. She pioneered Australia's first perovskite space cell research program, developing lightweight, radiation-tolerant cells up to 100 times thinner and more efficient than current alternatives. Her work demonstrated proton radiation-tolerant cells and advanced multi-junction perovskite designs suitable for space. In 2024, she achieved Australia's first 30% efficient perovskite-silicon tandem cell, certified by the U.S. National Renewable Energy Laboratory—one of only eight worldwide at the time. Her innovations were launched aboard the CUAVA-2 satellite and the Waratah Seed mission, in partnership with her startup EurokaPower.



Through these achievements, she has strengthened Australia's sovereign space capability, fostered international collaboration, and trained future innovators. Recognised with awards including the Eureka Prize for Sustainability Research and Scientist of the Year, she has published nearly 200 papers with over 26,000 citations and an h-index of 74.

## **Premier's Prize for Excellence in Medical Biological Sciences**

### **Scientia Professor Kaarin Anstey FRSN FASSA FAHMS — UNSW Sydney**

Professor Kaarin Anstey is a leading figure in cognitive ageing and dementia risk reduction. Through epidemiological studies and systematic reviews, Kaarin has identified key modifiable risk factors for dementia, such as obesity, smoking, alcohol use, type 2 diabetes, high cholesterol in mid-life, adherence to the MIND diet, air pollution, and hypertension. Kaarin developed the Cognitive Health and Dementia Risk Assessment (CogDrisk) tool, now widely used in Australian primary care, with over 23,000 general practitioners trained since 2023.

Kaarin Anstey has also led clinical trials focusing on interventions for those in preclinical stages of cognitive decline. Internationally, Professor Anstey has contributed to global dementia prevention efforts, including work with the World Dementia Council and the World Health Organisation. She has received prestigious awards, published over 570 works, and has an h-index of 116, reflecting significant impact in the field.



### **NSW Early Career Researcher of the Year (Biological Sciences) Dr Jennifer Matthews – University of Technology Sydney**

Dr Jennifer Matthews is an emerging leader in marine biochemistry whose research is reshaping coral conservation and climate resilience strategies. As Deputy Team Leader of the Future Reefs group at the University of Technology Sydney, she investigates coral nutrition and physiology, focusing on how climate change impacts marine ecosystems. Her work includes a major coral biodiversity mapping initiative with the Sydney Institute of Marine Science, Traditional Owners, and citizen scientists, strengthening science-community connections.



She has pioneered innovations such as the “Reef e-nose” for early stress detection and coral nanomedicines like a coral “baby food” that boosts reproductive success, with immediate applications in restoration and aquaculture. Matthews has secured over \$3.4 million in competitive grants, including prestigious fellowships and international awards. A strong advocate for equity and inclusion, she dismantles barriers for people with hearing disabilities and is a celebrated science communicator. She has published 35 papers, with 1,400 citations and an h-index of 17.

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## **Events**

### **1337th OGM and Open Lecture — 3 December 2025**

#### **A Future made in Australia**

**Dr Donald Hector AM FRSN**

Principal

Grassick SSG Pty Ltd

**Date:** Wednesday, 3 December 2025, 6.00–7.30 pm AEST

**Venue:** OGM: Michael Crouch Room, Level 1, Mitchell Building, State Library of NSW, Shakespeare Place, Sydney

**Pre-meeting drinks:** A cash bar will operate from 5.30 pm

**Enquiries:** by [email to RSNSW Events](#)



**Registration:** OGM: Please [register](#) by 2.00 pm AEDT on Tuesday, 2 December

**Entry:** OGM: Members, \$20; Non-members, \$30; Students, \$0

**All are welcome**

**REGISTER NOW**

**for the OGM and Open Lecture  
before 2.00 pm on Tuesday, 2 Dec.**

**ENQUIRIES**

**By email to  
RSNSW Events**

### **Business of the Meeting**

The Agenda for the Ordinary General Meeting will be available on the [Meetings page](#) of the website prior to the event.

**Summary:** A Future Made in Australia is a major federal government program that establishes a policy framework called the National Interest Framework that imposes rigour on government decision-making on public investments, particularly those that need to attract large-scale private investment. The program will see investment of \$22.7 billion over the next decade, focused on two major streams:

- Net zero transformation; and
- Economic security and resilience

**Net Zero Transformation** – this stream will identify and support 21<sup>st</sup>-century technologies that will enable Australia to participate in the reindustrialisation needed to achieve global greenhouse gas emissions targets. The stream has three major areas of focus: *Renewable hydrogen* – utilising Australia’s abundant renewable energy resources to produce green hydrogen, particularly as an input to the manufacture of green metals such as iron, steel, alumina/aluminium. *Green metals* – the established production technologies for iron, steel, alumina and aluminium require very large amounts of energy. Worldwide, this mostly comes from highly carbon-intensive sources such as coal and natural gas. Renewable hydrogen has a very low emissions footprint when compared with current production technologies that are mostly based on petroleum or natural gas. Hydrogen can also be used to replace metallurgical coal to make green iron, although the technology, which appears quite simple, is very complex and has yet to be commercialised at a competitive cost. *Low-carbon liquid fuels* – Australia’s large land mass and advanced farming practices require large quantities of liquid fuels, all of which are based on petroleum or natural gas. Development of large-scale, low-carbon-intensity liquid fuels will be critical to Australia’s prosperity and contribute to the world achieving its greenhouse gas emissions targets.

**Economic Resilience and Security** – this stream identifies sectors that are critical to Australia’s economic resilience, vulnerable to global supply chain disruptions or require government support to attract sufficient private investment capital.

In the 2024-25 budget, five industries have been identified and aligned with the National Interest framework. These are renewable hydrogen, critical minerals processing, green metals, low-carbon liquid fuels, clean energy manufacturing, including battery and solar panel supply chains

The ‘Future Made in Australia’ challenges are by no means trivial and must not be underestimated. Donald Hector will explore some of these issues and what needs to

happen in Australia for this substantial government investment to be successful.

**Donald Hector** is a chemical engineer with extensive experience in large-scale industrial processing, engineering design and the evaluation and commercialisation of new technologies. Currently, he is a co-founder and director of Reverse Ore Corporation, a company established to commercialise patented critical minerals beneficiation technology developed at the Australian National University. He was a co-founder and director of Gelion Technologies Pty Ltd, a start-up company that developed and commercialised novel battery technology invented at the University of Sydney. In 2021, the company was listed as Gelion plc on the Alternative Investment Market of the London Stock Exchange.

Donald was managing director of Dow Corning Australia and the executive director responsible for the Australian/New Zealand, ASEAN and Indian subsidiaries of Dow Corning Corporation, a high-technology American multi-national specialty materials company. He was also managing director of Asia Pacific Specialty Chemicals Ltd, an ASX-listed specialty materials and food additives company. He is a former non-executive chairman of Coote Industrial Ltd (ASX-listed), a heavy engineering, mining equipment and defence company. He was a non-executive director of Engenco Ltd (originally ASX-listed, recently privately owned) and was the independent non-executive chairman of SEMF (now COVA Group), a privately owned engineering consulting firm. He has also been on the boards of several other private companies and not-for-profit organisations. Donald has a PhD in engineering and is a Fellow and former global vice-president of the Institution of Chemical Engineers (London), is a Fellow of the Institution of Engineers Australia and of the Australian Institute of Company Directors. He is a past President of the Royal Society of NSW and served on its Council for 14 years.

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## Hunter Branch Meeting 2025-5 – 4 December 2025

### Renewable energy 101: What is being delivered in NSW's first renewable energy zone?

**Adjunct Professor Warwick Giblin FRSN FEIANZ**

Principal, ESE Justice

**Date:** Thursday, 4 December 2025, 6.00–7.00 pm AEDT

**Venue:** NEX, Newcastle Exhibition and Convention Centre, 309 King Street, Newcastle West, NSW

**Entry:** Members, \$15; Non-members, \$25; Students: \$5

**Registration:** [Registration](#) is required by 2.00 pm AEDT on Wednesday, 3 December 2025

**Enquiries:** [by email](#) to the Hunter Branch Chair

**All are welcome**



**REGISTER NOW**

**before 2.00 pm AEDT, Wed., 3 Dec.**

**ENQUIRIES**

**by email to the Branch Chair**

**Summary:** This event plans to explore:

- Why is Australia on the renewable energy journey?
- The various types of projects required, including generation, storage and transmission
- Household solar plus battery storage: is it a game changer?

The case study of what is happening in NSW's first Renewable Energy Zone—Central West-Orana — will inform the presentation, addressing the questions of what the benefits are and who reaps them, and what the costs are and who bears these. This will be an interactive session in which audience questions and input will be welcomed.

**Warwick Giblin** is the Principal of ESE Justice and an Adjunct Professor in the Faculty of Science, Agriculture, Business, and Law at the University of New England. He is a Fellow of the Royal Society of NSW and Founding President of the Environment Institute of Australia (NSW Division) in 1989. He is also a Fellow of the Environment Institute of Australia and New Zealand.

For the past three years, Warwick Giblin has been advising Local Government in the Central West Orana Renewable Energy Zone on a dozen proposed wind, solar and transmission projects. The focus has been on the social, environmental and economic impact assessment, and securing financial benefits for local communities from both developers and the State Government. His environmental management career has spanned more than 45 years in both the corporate and public sectors. Over the past decade, he has acted for 17 local councils across NSW and 20 farmers across Australia on energy and mining projects.

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## 1337th OGM and Open Lecture — 3 December 2025

### How many Australians should there be?

**Dr Abul Rizvi PSM FRSN (1)**

and

**Scientia Professor Richard Holden FRSN FASSA (2)**

(1) Former Deputy Secretary, Department of Immigration

(2) Professor of Economics, UNSW Sydney Business School

How many  
Australians  
should  
there be?



**Date:** Wednesday, 11 February 2026, 6.00–7.30 pm AEST

**Venue:** OGM: Michael Crouch Room, Level 1, Mitchell Building, State Library of NSW, Shakespeare Place, Sydney

**Pre-meeting drinks:** A cash bar will operate from 5.30 pm

**Enquiries:** by [email to RSNSW Events](#)

**Registration:** OGM: [Please register](#) before 2.00 pm AEDT, 10 February 2026

**Entry:** OGM: Members, \$20; Non-members, \$30; Students, \$0

**All are welcome**

REGISTER NOW

ENQUIRIES

for the OGM and Open Lecture  
before 2.00 pm on Tuesday, 10 Feb.

By email to RSNSW Events

### Business of the Meeting

The Agenda for the Ordinary General Meeting will be available on the [Meetings page](#) of the website before the event..

**Summary:** Australia lacks a formal population policy, relying instead on immigration policies without clear ministerial accountability for net migration outcomes. Political reluctance to discuss population targets has led to a policy vacuum, with recent surges in migration after COVID-19 sparking public debate and anti-immigration protests. The 2025 Federal Election saw immigration become a contested issue, with major parties offering vague or reactive commitments to migration levels but failing to explain the rationale or consequences of their targets.

Treasury forecasts Australia's population will grow from 27.6 million in 2024-25 to 31.6 million by 2035-36, driven by both natural increase and net migration. However, these projections are not backed by concrete government policy or ministerial responsibility, and there is little clarity on how targets will be met or what policy changes are needed. The absence of a comprehensive population plan has allowed extreme proposals, such as zero net migration or a pause in immigration, to gain traction, echoing trends in other countries facing similar debates.

A robust population plan would need to address demographic trends, economic impacts, labour force needs, infrastructure, housing, service delivery, family migration, social cohesion, humanitarian obligations, and environmental sustainability. Immigration is shown to benefit the economy and budget, especially when migrants are young, and is crucial for sectors such as health and aged care. However, infrastructure and housing have lagged behind population growth, contributing to the current crises. Social cohesion and public confidence are threatened by the lack of long-term planning and rising contestation over migration. Globally, many nations are experiencing population decline and ageing, making Australia's approach to population and immigration policy increasingly significant.

**Abul Rizvi** is an economics, accounting and public policy graduate from the ANU and holds a PhD in immigration and population policy from the University of Melbourne. From 1998, at the Department of Immigration, Rizvi managed major growth in overseas students, skilled temporary migration, visitors and working holiday makers, including the development of pathways to permanent migration. Between 1996 and 2006, Rizvi was Chair of the Commonwealth/State Working Party on State-Specific and Regional Migration, which gave state/territory governments a much greater role in immigration to their jurisdictions.



He was responsible for commissioning research on the demographic, economic and budgetary impact of immigration, which was extensively used in the development of the

2002 and 2007 Intergenerational Reports. He was Deputy Secretary responsible for all aspects of immigration, humanitarian, citizenship and settlement policy from 2005.

Rizvi was awarded the Public Service Medal and the Centenary Medal for services to the development and implementation of Australian immigration policy. Rizvi is a frequent media commentator on population, immigration and their impact on Australia's economic and budget directions. He was invited to participate in the 2022 Jobs and Skill Summit and recently published a book in the 'In the National Interest' series titled 'Population Shock'. Rizvi recently presented on immigration policy in a televised address to the National Press Club.

**Richard Holden** is an Australian economist and Professor of Economics at UNSW Sydney. Previously, he was a faculty member at the University of Chicago and the Massachusetts Institute of Technology. Born in Sydney, he received his undergraduate degree from the University of Sydney, where he was awarded the university medal in economics. He received an AM and a PhD from Harvard University.



In addition to his professorial role at UNSW Sydney, he has served as President of the Academy of the Social Sciences in Australia. He is currently the editor of the Journal of Law and Economics and is a former Australian Research Council Future Fellow. He is a Fellow of the Econometric Society, the Academy of Social Sciences in Australia, and the Royal Society of NSW. His research, which is mainly in organisational, political, and law economics, has garnered significant attention in the local and international media, including The New York Times, The Economist, the Australian Financial Review, amongst others, and on local radio and television.

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## Branch and Program Reports

### Report from the Activities with Impact Program

The Society provides an active program of events in Sydney and through its Hunter, New England North West, Southern Highlands, and Western NSW branches. With events planned and held recently by the branches reported separately in this Bulletin, this section focuses on the Master Plan's *Activities with Impact* program and events held in Sydney.



### Provocations and Inspirations: Presentation Report — 21 October 2025

**After the Crisis: a New Australian Dream**

## **Professor Anthony Burke FRAIA**

Professor of Architecture

University of Technology Sydney

**Professor Anthony Burke**, Professor of Architecture at the University of Technology Sydney and the presenter of Grand Design Australia, Restoration Australia, and The Home Front on ABC, delivered the fifth in the Society's lunchtime series of Provocations and Inspirations on the topic of '[After the Crisis: a new Australian Dream](#)' before an audience of approximately 50 members of the Society and the Union, University and Schools Club on Tuesday, 21 October 2025.



Anthony Burke's talk addressed the complexity of Australia's housing crisis, arguing that it is not simply a matter of supply and demand, but a deeply cultural and moral issue. Burke challenged the prevailing narrative that building more houses alone will solve the crisis, highlighting that Australia already has a significant number of empty homes and spare rooms. He points out that the real challenge lies in the mismatch between the types of homes being built and the needs of a changing population, with shrinking family sizes and increasing numbers of single-person and non-traditional households.

Professor Burke emphasised the emotional and social dimensions of housing, noting that homes are central to personal identity and community wellbeing. He discussed the rise of loneliness and social isolation, partly driven by the trend towards larger, more isolated homes and the erosion of neighbourhood connections. Drawing on international examples, such as Finland's 'housing first' policy to reduce homelessness, Burke advocated for innovative, adaptable housing models and policies that prioritise security, affordability, and social connection.

He called for a generational shift in thinking, urging Australians to embrace change, challenge cultural myths about home ownership, and support new forms of living that reflect contemporary realities. Professor Burke concluded that solving the housing crisis required not just technical solutions, but a collective moral will to reimagine what home means in Australia, and to act decisively to ensure everyone has access to secure, suitable housing.

If you missed the face-to-face event, a [recording is now available](#) on our YouTube channel.

Lindsay Botten FRSN  
Vice-President, RSNSW

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## **Report: RSNSW and Learned Academies Forum 2025— 6 November 2025** **AI: The Hope and the Hype**

The Royal Society of NSW and Learned Academies Forum for 2025 on the theme of '[AI: The Hope and the Hype](#)', was hosted at Government House, Sydney, by Her Excellency the Honourable Margaret Beazley AC KC on 6 November 2025. RSNSW Council member,

Professor Sally Cripps FRSN, Co-Director of the Human Technology Institute at the University of Technology Sydney, conceived and convened the excellent day-long program, which comprised an opening session that included the Governor's address, and Introductory and Keynote Lectures, followed by five panel sessions throughout the day.



**Her Excellency the Honourable Margaret Beazley AC KC**, Governor of New South Wales, [formally opened the event](#), emphasising the importance of renewal and vibrancy within organisations, the role of AI



in various sectors, and the need for ethical considerations and governance in AI development. She discussed AI's potential and risks, the significance of interdisciplinary dialogue, and the importance of continuous assessment and adaptation of legal and regulatory frameworks. Her Excellency also highlighted AI's transformative potential in governance, science, engineering, medical research, and law, while acknowledging the challenges and biases associated with AI. She underscored the need for evidence-based approaches, prioritising ethics, justice, and human rights, and the importance of forums like the Royal Society of New South Wales for fostering rigorous, open, cross-disciplinary dialogue.

Following the Governor's address, the Program Chair of the Forum, **Professor Sally Cripps**, introduced the [agenda for the day](#), covering topics such as law, communities, medicine, and the future of AI research. She spoke of the optimism and potential productivity gains, discussing the significant investments in AI by companies like Nvidia and Google, while also warning about the risks of income inequality and the possibility of that hype might outweigh actual transformation.



**The Honourable Victor Dominello**, CEO of the Future Government Institute and former NSW Minister for Customer Service and Digital Government, [delivered the Introductory Lecture](#) in which he discussed the evolution of government. He highlighted the transition from paper forms (government 0.0) to web forms (government 1.0), mobile apps (government 2.0), and the unified service app (government 3.0). Dominello emphasised the need for governments to evolve and become more agile in the age of AI, warning against the risks of centralised power and the importance of maintaining data control to avoid corporate autocracies.



**Professor Pascal Van Hentenryck**, a leading AI expert from the Georgia Institute of Technology, discussed the evolution and impact of AI in his [Keynote Presentation](#). He highlights the historical development of AI, from early chatbots to modern advancements

like convolutional networks and natural language processing. Van Hentenryck emphasised the importance of data, GPUs, and the democratisation of tools in AI's progress. He explored AI's applications in various fields, including healthcare, logistics, supply chains, and power systems, showcasing how AI enhances efficiency and decision-making. He also addressed the future of AI, predicting its integration into all disciplines and its role in automating workflows and improving productivity. Van Hentenryck concluded by stressing the need for regulation and governance to ensure equitable benefits from AI advancements.



The Opening Session was followed by the first of the panel sessions, titled [AI and the Law](#), chaired by **Emeritus Professor Rosalind Croucher AM FRSN**.

The panel included former Federal Court Judge, **The Hon. Dr Annabelle Bennett AC**, who discussed AI tools in judicial decision-making, **Professor Lyria Bennett Moses FRSN**, of UNSW Sydney, who focused on regulatory challenges, defining AI, and addressing algorithmic bias, and **The Hon. Justice Dr Melissa Perry** of the Federal Court who emphasised the importance of human qualities in judicial decision-making and the limitations of AI. Key themes in the panel discussion and audience Q&A included the role of AI as a tool, ensuring accuracy and reliability, the need for broader regulation, and maintaining human oversight in government decision-making. The session concluded with a discussion on the importance of human qualities and the potential dangers of shortsighted regulation.



The second panel session focused on [AI in Communities](#). Convened by **Professor Sally Cripps** (UTS), the panel included **Scientia Professor Jill Bennett** (UNSW Sydney), **Dr Stephen Hardy** (Bain & Co.), **Jacky Hodges** (NSW Department of Education), and **Dan Hart** (University of Sydney, and previously the NSW Department of Education).



This session explored the transformative role of AI in communities, health, and education, especially in rural and remote areas. It highlighted both the opportunities and risks of AI, emphasising the importance of human-centred design and ethical considerations. It was noted that AI can help deliver services where resources are limited, but there are concerns about emotional impacts and the need to maintain human connections. Co-design with end-users, particularly in aged care and dementia support, is shown to improve relevance and cultural sensitivity. In education, the rollout of AI tools like EduChat in New South Wales schools demonstrated the potential for personalised learning, while underlining the necessity of robust governance, teacher involvement, and curriculum integration. The overall message is that responsible, context-aware AI adoption can enhance well-being, but must not replace essential human relationships.

The third and final panel session of the morning focused on [AI in Health](#). The panel included **Dr Amandeep Hansra** (Aust. Digital Research Agency), **Dr Simon Carlile** (Google Research, Australia), **Dr Richard Taggart** (eHealth NSW and NSW Health), **Dr Sean Baldwin** (Northern Sydney LHD, NSW Health), and **Professor Michael Blumenstein** FRSN (University of Technology Sydney), as the panel chair.



Their discussion explored the balance between regulation and innovation in AI health applications, emphasising the need for strong foundations, clinician involvement, and safety. The panellists highlighted the rapid adoption of AI scribes, the importance of evidence-based implementation, and the challenges of scaling technology in large health systems. They discussed public concerns about data privacy, the need for actionable insights from wearable devices, and the evolving definition of clinical evidence. The panel concluded that AI will augment rather than replace healthcare jobs, enabling clinicians to focus more on patient care and less on administrative tasks.

Following the lunch break, the fourth session of the day considered [AI in Practice](#). Panel members included **Professor Mary-Anne Williams** (UNSW Sydney) as the panel chair, **Ros Harvey** (formerly The Yield Technology Solutions), **Dan Jermyn** (Commonwealth Bank of Australia), and **Professor Salah Sukkarieh** (University of Sydney).



The panel discussed the practical application of AI across agriculture, finance, and robotics. Ros Harvey highlighted her experience founding The Yield, an early AI company in agriculture, focusing on microclimate predictions and yield forecasting. She emphasised the challenges of data readiness, organisational change, and the environmental impact of AI, noting that most AI projects fail due to unclear objectives and poor data quality. Dan Jermyn from the Commonwealth Bank outlined the bank's use of AI for customer engagement, fraud prevention, and operational efficiency, stressing the importance of responsible AI, trust, and governance. He shared examples of AI-driven benefits, such as reducing customer losses to fraud and using generative AI for scam baiting. Professor Salah Sukkarieh discussed field robotics, focusing on the complexity of deploying AI in outdoor environments and the evolution from basic automation to integrated, adaptive systems. He noted the importance of human-robot interaction and the challenges of real-time processing in remote settings. The panel agreed that while AI delivers value in cost reduction, efficiency, and new capabilities, significant blockers remain, including data quality, organisational readiness, trust, and the need for clear ethical frameworks.

The fifth and final panel session of the day focused on [AI Research — Future Directions](#) and was convened by **Professor Hugh-Durrant-Whyte FRS FRSE** (NSW Chief Scientist and Engineer). The panel included the keynote speaker, **Professor Pascal Van Hentenryck** (Georgia Institute of Technology), **Distinguished Professor Jie Lu AO**



(University of Technology Sydney), **Professor Toby Walsh FRSN** (UNSW Sydney), and **Professor Lina Yao** (formerly of CSIRO Data61, and now UNSW Sydney).

The panel discussed the future, considering AI developments in the short term (1–2 years) and the long term (20+ years). In the near term, the panel anticipated rapid growth in autonomous AI systems, AI agents, and AI for scientific discovery, but also anticipated a high failure rate among new AI ventures, similar to the dot-com bubble. The importance of domain-specific foundational models and the integration of AI with human values and physical laws was emphasised. Looking further ahead, the panel predicted that AI will be embedded in everyday devices, revolutionising sectors like healthcare, education, and transport. Key challenges include ensuring human–machine collaboration, personalisation, and robust governance to prevent social harms such as echo chambers and misinformation. The panel stressed the need for education reform, blending technical and humanities skills, and highlighted the opportunity for AI to enhance, rather than diminish, human capabilities. They concluded that inclusive, well-regulated AI integration would be essential for maximising societal benefits while mitigating risks.

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## **Presentation Report: 1336th OGM and Open Lecture— 12 November 2025**

### **Arts-based Community Interventions for Youth Mental Health**

#### **Professor Katherine Boydell FASSA**

Professor of Mental Health and  
Director, Arts-based Knowledge Translation Lab  
Black Dog Institute

In this online presentation on the evening of Wednesday, 12 November, **Professor Katherine Boydell** highlighted the transformative impact of arts engagement on mental health and well-being. Drawing on global and local evidence, her lecture demonstrated that activities such as music, painting, dance, and attending performances are not mere hobbies but are proven pathways to improved mental health. Prescribed arts programs have been shown to reduce GP visits by 37% and hospital admissions by 27%, while regular cultural engagement can lower the risk of depression, especially in older adults. She noted that the arts foster community, reduce anxiety and depression, and support trauma recovery.



Her lecture introduced the work of the Arts-based Knowledge Translation Lab at the Black Dog Institute, which aims to make research findings accessible to clinicians, policymakers, and the public. Her laboratory focuses on generating knowledge through artistic methods, disseminating findings in digestible formats, and measuring the impact of arts interventions on mental health.

Three exemplar studies were discussed during her presentation:

- Culture Dose for Kids: An art gallery program for anxious children and their parents, resulting in reduced anxiety, improved social connectedness, and stronger parent-

child bonds.

- Body Mapping Nature: A creative project helping young families articulate ecological emotions and climate anxiety, fostering new conversations and public awareness.
- Rebloom: An interactive art exhibit addressing self-harm, showing the power of simple human connection and reducing stigma through public engagement.

Overall, her lecture demonstrated that arts engagement is an effective, inclusive, and enjoyable approach to supporting mental health, especially for young people, and is increasingly recognised in policy and practice.

If you missed the online event, a [recording is available](#) on our YouTube channel.

Lindsay Botten FRSN  
Vice-President, RSNSW

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## Hunter Branch Report

### Presentation Report— 30 October 2025

#### Male Infertility Public Forum

**Dr John Schjenken (1, 2), Dr Elizabeth Torres-Arce (1,2),  
Dr Nathan Burke (1), Dr Aleona Swegen (1, 2),  
Professor John Aitken (1, 2), Dr Andrew Hedges (3),  
Nick Allen-Ducat (4)**

- (1) University of Newcastle
- (2) Hunter Medical Research Institute
- (3) IVF Australia
- (4) Hit 106.9 Newcastle



The RSNSW Hunter Branch, in collaboration with the Hunter Medical Research Institute (HMRI), conducted a public forum on 30 October to address the growing societal issue of male infertility. An audience of approximately 50 people heard informative presentations from four researchers from HMRI and the University of Newcastle, followed by a panel discussion that included a specialist practitioner from IVF Australia, a leading reproductive science researcher, and a local personality who had recently faced infertility challenges.

The event opened with **Dr John Schjenken** highlighting that infertility is a global public health issue, affecting 15% of reproductive-aged couples worldwide and one in six couples in Australia. Male infertility is responsible for about half of all cases, yet most causes remain unexplained, underscoring the need for further research. Factors include sperm count, movement, shape, genetics, lifestyle, environment, and medical treatments. The research program aims to identify these factors and develop strategies to improve fertility and future health.

Next, **Dr Elizabeth Torres-Arce** explained the complexity of sperm development, noting that sperm mature over 72–74 days and are influenced by environmental factors such as heat, toxins, and lifestyle choices. She noted that DNA integrity in sperm is crucial but difficult to assess, but that epigenetics offers hope, as gene expression can be positively

influenced by quitting smoking and adopting a healthy diet. Seminal plasma and extracellular vesicles, previously overlooked, are now recognised as important for pregnancy outcomes.

Then, **Dr Aleona Swegen** introduced Sperm Safe, a new sperm processing technology developed for horse breeding and now being trialled for human IVF. This innovation helps sperm survive, swim, and protect their DNA, aiming to improve IVF success rates. The University of Newcastle and the HMRI are leaders in this field, and social awareness of male infertility is growing.

Finally, **Dr Nathan Burke** discussed the link between male infertility and increased risk of chronic illnesses, including autoimmune diseases, cardiovascular disease, metabolic disorders, and cancer. He made clear that male infertility can act as an early warning for broader health issues, and early intervention may prevent future illness, supporting a proactive approach to healthcare



Next followed a panel discussion featuring **Distinguished Emeritus Professor John Aitken FRSN FRSE FAA FAHMS**, **Nick Allen-Ducat**, a radio presenter from Hit 16.9 Newcastle, and **Dr Andrew Hedges** from IVF Australia (Newcastle), which explored male infertility, its impact, and the importance of open discussion. The session highlighted that male infertility is often a signpost for broader health issues, and addressing it can potentially save lives. Sharing personal stories, such as Nick Allen-Ducat's public experience, was praised for reducing stigma and encouraging others to seek help.



The discussion emphasised that infertility is a shared issue—50% male, 50% female—and both partners should be tested and supported equally. Mental health impacts of infertility, especially for men, were discussed, with statistics showing men often delay seeking medical help. Regional healthcare challenges were noted, with calls for better access and investment in rural areas.

Professor Aitken addressed global trends, noting that falling fertility rates and rising rates of testicular cancer are particularly prevalent in developed regions. Environmental factors, such as chemical pollutants, were identified as contributors. The importance of local research with global relevance was stressed, alongside advocacy for improved access to treatments and clinical trials.

Technological advances, such as DNA fragmentation testing and sperm selection, were discussed, though many cases of male infertility remain unexplained. The need for more routine and comprehensive testing was raised. The panel concluded with some key

messages: there is no shame in infertility, early testing is vital, and both male and female preconception health should be prioritised. Knowledge, openness, and early intervention were highlighted as crucial for better outcomes.

A [recording of the event](#) is available on our YouTube channel.

Lindsay Botten FRSN  
Vice-President, Royal Society of NSW

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## New England North West Branch Report

**Presentation Report— 29 October 2025**

### **Building resilient futures: Understanding rural youth through the lens of place, risk, and prevention**

**Dr Kyle Mulrooney**

Co-Director, Centre for Rural Criminology  
University of New England

#### **Panellists**

**Sam Coupland**, Mayor, Armidale Regional Council

**Samantha Guilbert**, Youth on Track

**Sam Davis**, PCYC Armidale

This meeting, held at the UNE Smart Region Incubator at NOVA in Armidale, addressed issues facing rural youth and comprised a lecture delivered by **Dr Kyle Mulrooney**, followed by a panel session moderated by **Professor Vicki Bitsika AM FRSN**, Deputy Chair of the RSNSW New England North West Branch.

In his talk, Dr Mulrooney discussed the importance of place and community in understanding and preventing youth crime in rural areas. Drawing on rural criminology, Dr Mulrooney highlighted how geographic isolation, social networks, and limited access to services shape crime patterns and responses in rural communities. He went on to introduce a risk-protection framework focusing on three spatial dimensions: distance, density, and dispersion, which influence exposure, guardianship, and access for young people.

Dr Mulrooney emphasised that effective crime prevention must move beyond deficit-based approaches and instead strengthen the civic community. Civic community theory identifies three key levers: residential stability, local economic rootedness, and civic engagement density. He noted that such levers foster trusted relationships, legitimate roles, and opportunities for youth, reducing boredom and idle time that can lead to offending.

Practical strategies include making youth visible as civic contributors, building predictable community rhythms, supporting local mentors, and creating identity-rich roles through

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North West**



associations and events. Mulrooney concludes that interventions should induct youth into everyday community life, making the safe choice rewarding and accessible. Ultimately, place sets the conditions for crime, and building community is essential to making prevention efforts effective for young people in rural settings.

The lecture was followed by a panel session, moderated by **Professor Vicki Bitsika** from UNE, that included the Mayor of the Armidale Regional Council, **Sam Coupland**, and youth workers, **Samantha Guilbert**, from Youth on Track, and **Sam**



**Dr Mulrooney**. It explored factors leading young people to crime in rural communities,

focusing on Armidale. Sam Coupland emphasised the importance of residential stability, local economic rootedness, and civic engagement as key strategies for crime prevention and community livability. He outlined Armadale's growth agenda, aiming to increase population and attract investment, and discussed challenges in housing development and the need for affordable and social housing. Mr Coupland highlighted the Council's secondary role in crime prevention, stressing the importance of collaboration with experts and the community.

Fellow panellists, Samantha Guilbert and Sam Davis, shared insights from their frontline experience. They identified trauma, lack of psychological resilience, limited options, and fragmented support services as major challenges for young people. The discussion underscored the need for unified, collaborative approaches among services and the value of 'warm referrals' in small communities to build trust and engagement.

Audience contributions stressed the importance of including Aboriginal voices, culturally responsive care, and leveraging youth strengths rather than focusing on deficits. Examples were shared of successful youth engagement, such as involving young people in community solutions and creative projects. The panel also debated the impact of social media on youth identity and the perception of crime, noting both risks and opportunities.

Overall, the session called for place-based leadership, community collaboration, and genuine youth participation in shaping solutions, aiming to build a more inclusive, resilient, and thriving regional community.

A [recording of the lecture and panel discussion](#) is available from our YouTube channel.

Lindsay Botten FRSN  
Vice-President, Royal Society of NSW

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## Southern Highlands Branch Report

### Presentation Report— 20 November 2025

#### Laughing at other people's pain: Why do we do it, and is it ethical?

**Dr Jessica Milner Davis FRSN**

Honorary Research Associate

University of Sydney

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**Royal**  
**Southern Highlands**

**Dr Jessica Milner Davis** was greeted by a large, enthusiastic audience in the Carrington Room for the final lecture of 2025 at the Mittagong RSL. Three years had elapsed since her last lecture here. At the end of her presentation, the audience demanded that such a long break could not be allowed to occur again!



The audience was eager to investigate whether we are cruel and unethical when we delight in the appealing fun of comic pain. To commence her lecture, Jessica presented some YouTube sequences where appalling and potentially tragic incidents had befallen some unsuspecting victims — similar events to those suffered by comic heroes such as Mr Bean and Kath and Kim. The general reaction she observed at Mittagong was her audience rolling in laughter, despite the fact that they had been led to believe by the screams and language of the victims that serious corporal harm had indeed been suffered. When all was quiet again, Jessica then asked the obvious question, 'What are the contexts and rules that allow ordinarily civiised and humane persones to enjoy farce and slapstick?'

Jessica then delivered a comprehensive session on lessons drawn from live theatre that form an intriguing parallel with Bandura's Social Learning Theory (1975, 1979), which describes the human ability to consent to acts that under other conditions would transgress an individual's own value systems and be regarded as immoral. Her analysis from this viewpoint was deep and insightful. No wonder she faced long discussions with her audience in the question time that followed. The lecture was a huge success, and we all look forward to organising another in the not-too-distant future.

Anne Wood FRSN

Chair, RSNSW Southern Highlands Branch

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## **Western NSW Branch Report**

### **Presentation Report— 5 November 2025**

**Optimising yield, growth, and use of the '5th quarter' for Australian agricultural food access and market security**

**Professor Jane Quinn FRSN**  
Professor in Veterinary Physiology  
Gulbali Institute  
Charles Sturt University

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NEW SOUTH WALES  
**Western  
Branch**

The final lecture of the year from the Western NSW Branch, conducted in collaboration with Charles Sturt University, was delivered by **Professor Jane Quinn**. Her lecture discussed the journey of food from production to consumption, focusing on the challenges and responsibilities



faced by Australia as a major global exporter of red meat. She highlighted the growing issue of food insecurity, not only in traditionally vulnerable nations but also within Australia, particularly among women and families.

As consumer expectations evolve, there is increased demand for ethically produced, high-quality, and affordable food, which influences both government and market priorities. The presentation noted a decline in the direct connection between most Australians and food production due to urbanisation, even as the rural population remains steady. Jane Quinn introduced the concept of the ‘fifth quarter,’ referring to the non-meat components of livestock carcasses, which make up about 80% of the animal’s weight and hold significant economic and practical value. These by-products are used in a wide range of industries, from pet food and pharmaceuticals to scientific research and energy production.

Jane Quinn noted that the meat processing sector is highly automated, using advanced technologies such as hyperspectral imaging and machine learning that support quality assurance and efficiency, while still relying on human inspectors for critical decisions. The sector now requires a diverse workforce, including scientists, engineers, and data specialists. Charles Sturt University and the Gulbali Institute were highlighted for their integrated approach to research and education, training the next generation of agricultural professionals and contributing to both national and international food systems. The talk concluded with a call to recognise the complexity and importance of the entire food production chain.

A [recording of the presentation](#) is available from our YouTube channel.

Lindsay Botten FRSN  
Vice-President, Royal Society of NSW

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## The Society and Social Media

The Society’s presence on our social media channels—[Facebook](#), [LinkedIn](#), [X/Twitter](#) and [YouTube](#)—is engaging an increasing following, and we continue to build our repository of events on YouTube.

Our YouTube channel now has more than 1,560 subscribers, while the 223 full-length videos and 'shorts' that are online have received almost 185,000 views.

The social media icons at the end of this newsletter will take the reader to our pages on these platforms, from where you can follow, subscribe, and be notified of new content.

*As a Society member, please consider subscribing to our social media channels to support the Society's outreach and encourage your friends, colleagues and members of your networks to do so.*

## YouTube recordings of recent events

All online presentations and all face-to-face presentations held in Sydney and by the Hunter, New England North West, and Western NSW Branches are recorded and made available on the Society's YouTube channel. These can be accessed directly from our [YouTube channel](#) or the [Presentations](#) page of the RSNSW website.

For convenience, the video links below provide access to current recordings and recent popular recordings. We hope that these will be of interest to members.



YouTube recording of the presentation from the Western NSW Branch Meeting 2025-4 (5 November 2025) on *Optimising yield, growth, and use of the '5th quarter' for Australian agricultural food access and market security*, delivered by Professor Jane Quinn FRSN, Professor in Veterinary Physiology at the Gulbali Institute of Charles Sturt University. A summary of the lecture and a brief biography of the presenter are available in the [online event notice](#).



YouTube recording of the presentation from the 1336th Ordinary General Meeting (3 September 2025) on *Arts-based Community Interventions for Youth Mental Health*, delivered by Professor Katherine Boydell FASSA, Professor of Mental Health and Director, Arts-based Knowledge Translation Lab at the Black Dog Institute. A summary of the lecture and a brief biography of the presenter are available from the [online event notice](#).



@royalsocnsw

#AIHopeAndHype

YouTube playlist of recordings of the RSNW and Learned Academies 2025 Forum on 'AI: The Hope and The Hype'. A [brochure](#) describing the day's program and listing biographies of the panellists and presenters is available from the preceding link.



YouTube recording of the presentation from the Hunter Branch Meeting 2025-4 of the Royal Society of NSW (30 October 2025) of the *Male Infertility Public Forum*, comprising talks and a panel session from researchers at the University of Newcastle and medical practitioners from Newcastle. A summary of the presentation and brief biographies of the presenters and panellists are available from the [online event notice](#).



YouTube recording of the presentation from presentation from the New England North West Branch (29 October 2025) on '*Building resilient futures: Understanding rural youth through the lens of place, risk, and prevention*', comprising a lecture delivered by Dr Kyle Mulrooney, Co-Director, Centre for Rural Criminology University of New England, followed by a panel discussion with Sam Coupland, Mayor of the Armidale Regional Council, and local youth workers, Samantha Guilbert, and Sam Davis, that was moderated by Professor Vicki Bitsika. A summary of the lecture and a brief biography of the presenter are available from the [online event notice](#).



YouTube recording of the presentation from the fifth meeting of the Society's Provocations and Inspirations lunchtime series held at the Union, University, and Schools Club in Sydney (21 October 2025) at which Professor Anthony Burke FRAIA, Professor of Architecture at the University of Technology and host of Grand Designs Australia and Restoration Australia, and co-host of Grand Designs Transformations on ABC TV. He spoke on *the topic of 'After the Crisis: a new Australian Dream'*, addressing Australia's housing crisis. A summary of the presentation and a brief biography of the presenter are available from the [online event notice](#).



YouTube recording of the presentation from the 1335th Ordinary General Meeting (1 October 2025) on *Have universities become too political?*, conducted as a panel discussion between The Hon. Bill Shorten, Vice-Chancellor of the University of Canberra, and Professor Merlin Crossley AM FRSN, Deputy Vice-Chancellor (Academic Quality) at UNSW. Sydney. A summary of the lecture and a brief biography of the presenter are available from the [online event notice](#).



YouTube recording of the presentation from the 1334th Ordinary General Meeting (3 September 2025) on *Bringing Financial Reporting into the 21st Century*, delivered by Emeritus Professor Peter Wells FRSN of the University of Technology Sydney Business School. A summary of the lecture and a brief biography of the presenter are available from the [online event notice](#).



YouTube recording of the presentation from the 28 August 2025 Ideas@theHouse titled *Busting Myths, Bridging Gaps: Public Health Approaches to Hearing Loss in Adults*, delivered by Professor Bamini Gopinath, the Cochlear Chair in Hearing and Health at Macquarie University. The [online event notice](#) provides a summary of the lecture and the presenter's biography.



YouTube recording of the presentation from the fourth meeting of the Society's Provocations and Inspirations lunchtime series held at the Union, University, and Schools Club in Sydney (19 August 2025) at which Ross Gittins AM FRSN FASSA, Economics Editor of the Sydney Morning Herald, spoke on *Solving Australia's Productivity Crisis*. A summary of the presentation and a brief biography of the presenter are available from the [online event notice](#).



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Edited by: [Lindsay Botten](#) FRSN, Vice-President, Royal Society of New South Wales

Disclaimer: Positions expressed in this publication by the authors of articles and event presenters do not necessarily reflect those of the Society.

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