



2025

**Premier's Prizes
for Science
& Engineering**

**GOVERNMENT HOUSE
SYDNEY**

Wednesday 19 November 2025



The Honour Roll NSW Scientists of the Year

2024	Scientia Professor Helen Christensen AO UNSW Sydney
2023	Emeritus Professor Trevor McDougall AC UNSW Sydney
2022	Professor Glenda Halliday AC The University of Sydney
2021	Adjunct Professor Jim Patrick AO Cochlear Ltd, Macquarie University
2020	Professor Edward Holmes The University of Sydney
2019	Scientia Professor Rose Amal AC UNSW Sydney
2018	Laureate Professor Nick Talley AC The University of Newcastle
2017	Professor Gordon Wallace AO University of Wollongong
2016	Professor Rick Shine AM The University of Sydney
2015	Laureate Professor Scott Sloan AO The University of Newcastle
2014	Laureate Professor Mark Westoby Macquarie University
2013	Laureate Professor Graeme Jameson AO The University of Newcastle
2012	Laureate Professor John Aitken The University of Newcastle
2011	Scientia Professor Michelle Simmons AO University of New South Wales
2010	Professor Hugh Durrant-Whyte The University of Sydney
2009	Professor Stephen Simpson AC The University of Sydney
2008	Scientia Professor Martin Green AM University of New South Wales



2025

Premier's Prizes for Science & Engineering





The 2025 Premier's Prizes for Science & Engineering is an initiative of the NSW Government, led by the Office of the Chief Scientist & Engineer, to recognise excellence in research and education, and to reward those whose cutting-edge work has generated economic, environmental, health, social and technological benefits for New South Wales.

Order of Proceedings

Welcome to the 2025 Premier's Prizes for Science & Engineering, hosted at Government House Sydney, on Wednesday 19 November 2025.

Introduction

Master of Ceremonies:
Professor Hugh Durrant-Whyte
Chief Scientist & Engineer

Keynote Address

Her Excellency
The Honourable Margaret Beazley AC KC
Governor of New South Wales
Patron of the Premier's Prizes for Science & Engineering

Premier's Address

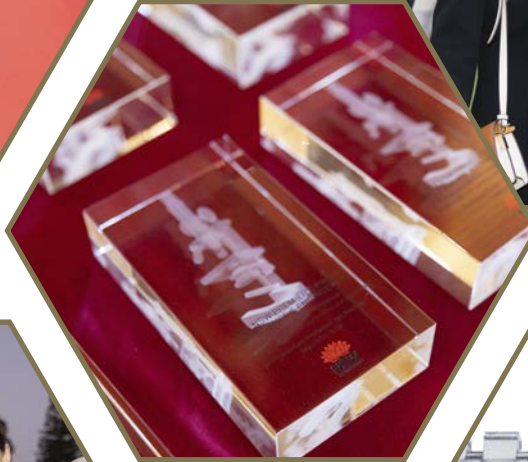
The Honourable Christopher Minns MP
Premier of New South Wales

Premier's Prizes for Science & Engineering Presentations

The Honourable Christopher Minns MP
Premier of New South Wales

The Honourable Anoulack Chanthivong MP
Minister for Innovation, Science and Technology

Address by the 2025 NSW Scientist of the Year



The Premier's Prizes for Science & Engineering event, Government House Sydney, Wednesday 30 October 2024.



GOVERNMENT HOUSE
SYDNEY

Message from Her Excellency The Honourable Margaret Beazley AC KC Governor of New South Wales

This year's United Nations-designated International Year of Quantum Science and Technology is a timely opportunity to celebrate 100 years of quantum mechanics and its many applications which have transformed our world today—from semiconductors, lasers, sensors and solar cells to medical imaging, vaccines and quantum computing.

As Governor and Patron of the Premier's Prizes for Science & Engineering, I am proud to assert that NSW—with its Research and Innovation Networks, Sydney Quantum Academy, world-leading quantum startups and the national body Quantum Australia headquartered in Sydney—is the home of quantum in Australia.

I had the opportunity to tap into the exciting world of quantum earlier this year in welcoming senior high school students selected for the International Science School, organised by the University of Sydney's Physics Foundation. The theme: 'Quanta to Quasars' reflected the program's wide scope of scientific inquiry from quantum physics particles to celestial objects.

Celestial objects were also the focus during my June visit to Siding Spring Observatory, Australia's premier optical and infrared astronomical research facility within Australia's first International Dark Sky Park, Warrumbungle National Park.

Then, taking centre stage in late September, Sydney was honoured to be host city to the 76th International Astronautical Congress. It was a pleasure to welcome global space leaders to this prestigious world space symposium, with over 7,000 delegates from around 90 countries, and to highlight NSW's world-leading space capability, talent and infrastructure.

As we hurtle towards new frontiers, the impact of Artificial Intelligence was the topic explored during the recent Royal Society and Learned Academies Forum at Government House.

In the fast-moving and inter-dependent STEM spheres, each of these events has underscored the importance of research and collaboration which are fundamental to tackling the big challenges we face today, from sustainable energy and climate change to medicine and diseases management. Equally, they highlight the critical role of education and collaboration.

Congratulations to each of this year's Prize-winners and Finalists and thank you, to our dedicated community of scientists, researchers, engineers and educators across NSW.

Her Excellency the Honourable Margaret Beazley AC KC
Governor of New South Wales



Her Excellency touring the Siding Spring
Observatory with Senior IT Officer Chris Ramage
on 20 June 2025.



Message from the Premier of New South Wales

On behalf of the NSW Government, I congratulate all the winners of the 2025 Premier's Prizes for Science & Engineering. You join an impressive cohort of people.

For more than a decade, these prizes have recognised the remarkable people who are pushing boundaries and solving problems for the good of our state.

Innovation is at the heart of progress. I am grateful for the role scientists and engineers are playing everyday to help us address the challenges we face.

As a state, we're working to ensure local research and development can thrive, and that our people can continue to have an impact on the global stage.

We also hope that by shining a spotlight on your contributions, we will encourage more people to follow in the footsteps of our leading innovators, researchers and educators.

Thank you for your dedication and for helping shape a brighter future for NSW. Congratulations once again!

Chris

The Honourable Chris Minns MP
Premier of New South Wales



The Chief Scientist & Engineer after signing a Memorandum of Understanding on 24 September 2025 with Mr Beh Kian Teik, CEO of Singapore's Agency for Science, Technology and Research (A*STAR).



At the launch of National Science Week in NSW on 12 August 2025 with (l to r) Emily Jateff, Chair, Inspiring Australia NSW, Professor Max Lu, Vice-Chancellor, University of Wollongong and Anoulack Chanthivong, Minister for Innovation, Science and Technology.

Message from the Chief Scientist & Engineer

Welcome to the 18th Premier's Prizes for Science & Engineering. Tonight, we gather to celebrate the achievements of 10 extraordinary individuals in their field.

Beyond this important recognition, this evening provides an opportunity to take a broader look at the incredible real-world impact that innovative thinking has delivered to NSW in the past 12 months.

The second NSW Research Commercialisation Showcase in April was attended by over 500 individuals and highlighted technology from over 40 small businesses across health, defence, space, advanced manufacturing, natural disaster resilience and digital transformation. Supported by NSW Government programs, these companies develop new technology solutions to major challenges, with many going on to major commercial success.

The research sector remains an important focus. This year, the NSW Government provided \$500,000 in funding to five NSW universities for ARC Industrial Translation Research Program Training Centres and Research Hubs, and supported 20 NSW scientific conferences through the Conference Sponsorship Program.

Our research and innovation networks are an extraordinary success story. Since inception, the Defence Innovation Network has attracted defence research projects and investments worth \$231 million to NSW, and the NSW Smart Sensing Network has delivered 42 R&D projects worth over \$17.6 million, with 17 active projects worth over \$13 million. Our newest network, the Space Research Network, has seen its \$500,000 Seed Project Program return a ten-fold \$5 million in external investment and its \$3 million Pilot R&D Projects Program attract more than double this in external funding.

Another important role of my office is to provide independent science-based advice to the NSW Government on complex policy problems. In the past year, teams have reviewed how we incorporate climate change data into estimates for minimum inflows in regulated water sources, delivered our annual assessment of the security of the NSW energy market and provided advice on the management of asbestos in recovered fines and materials.

A final word on the importance of our prize for innovation in STEM teaching in NSW. Inspiring the next generation of STEM professionals is a vitally important task. My team manages several programs designed to encourage students to consider careers in STEM. Keeping the NSW talent pipeline flowing is important and some of these students may one day attend this event as one of our two Early Career Researcher prize recipients.

To those and all our winners tonight, congratulations once again.

H. Durrant-Whyte

Professor Hugh Durrant-Whyte
Chief Scientist & Engineer

Premier's Prizes for Science & Engineering

The Premier's Prizes for Science & Engineering reflect the NSW Government's strong commitment to the local research and development community.

The Prizes seek to raise community awareness and appreciation of the important contribution scientists, engineers and educators make to our daily lives, as well as to encourage careers in these fields.

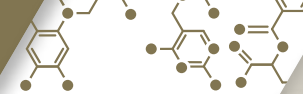
The top award, the prestigious Premier's Prize for the NSW Scientist of the Year, will be presented to an outstanding individual who has made a significant contribution to the advancement of science or engineering which has benefited or has the potential to benefit the people of NSW.



The 2024 NSW Scientist of the Year, Professor Helen Christensen, with the Hon. Anoulack Chanthivong MP at the Premier's Prizes for Science & Engineering, Government House Sydney, Wednesday 30 October 2024.

2025 Premier's Prizes for Science & Engineering Categories

- 1 Excellence in Mathematics, Earth Sciences, Chemistry or Physics
- 2 Excellence in Biological Sciences (Ecological, environmental, agricultural and organismal)
- 3 Excellence in Medical Biological Sciences (Cell and molecular, medical, veterinary and genetics)
- 4 Excellence in Engineering or Information and Communications Technology
- 5 NSW Early Career Researcher of the Year (Biological Sciences)
- 6 NSW Early Career Researcher of the Year (Physical Sciences)
- 7 Leadership in Innovation in NSW
- 8 Innovation in NSW Public Sector Science and Engineering
- 9 Innovation in Science, Technology, Engineering or Mathematics Teaching in NSW



Excellence in Mathematics, Earth Sciences, Chemistry or Physics

Professor Anita Ho-Baillie

John Hooke Chair of Nanoscience, the University of Sydney

Professor Anita Ho-Baillie is a world-leading researcher in solar cell technology. Her work focuses on the development of multi-junction metal halide perovskite solar cells – known for their high efficiencies – particularly to address challenges of accessing cost-effective photovoltaics in space.

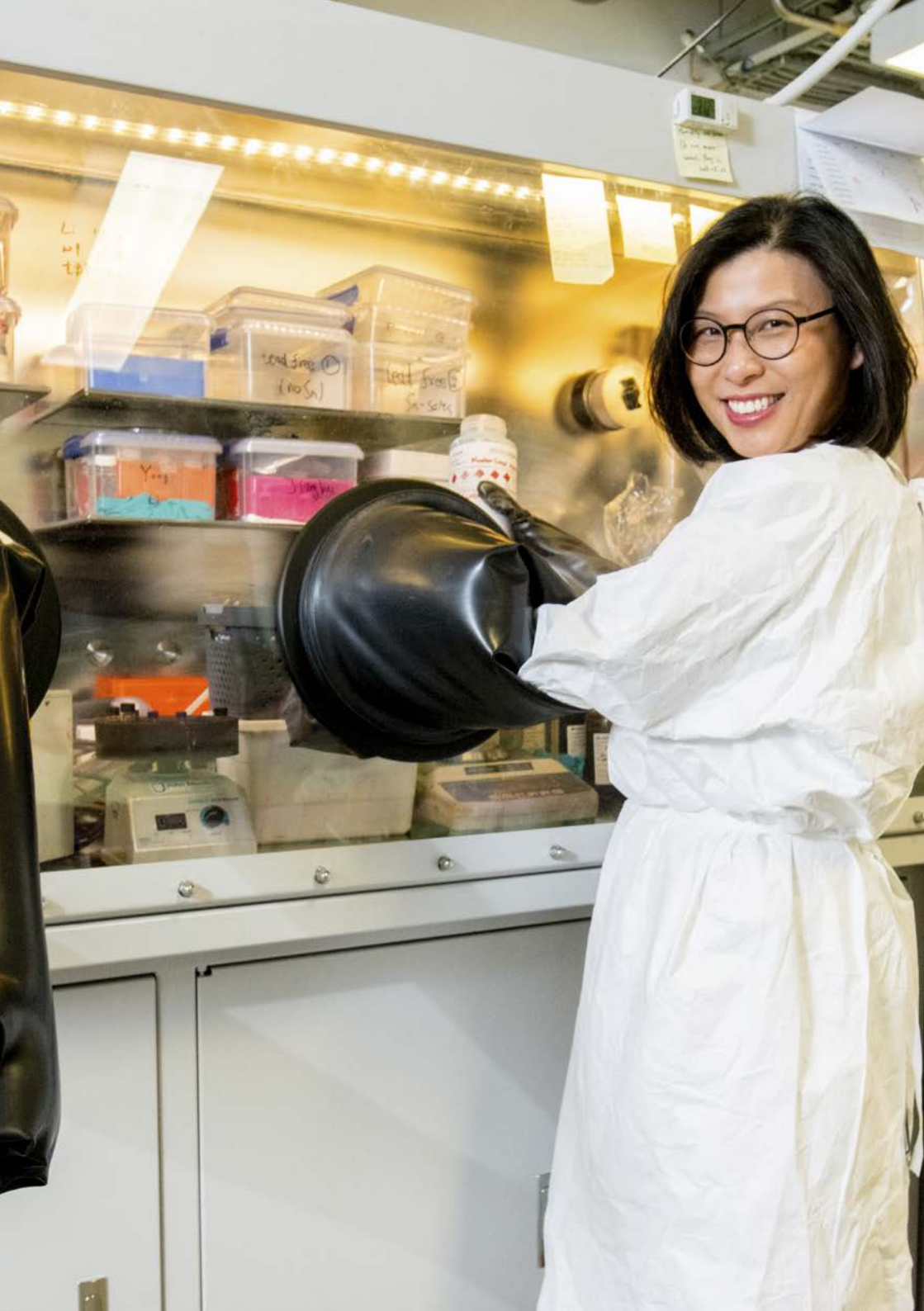
Anita launched Australia's first perovskite space cell research program to develop lightweight, radiation-tolerant cells 100 times thinner and more efficient than current alternatives. This program has demonstrated proton radiation-tolerant cells tested at the Australian Nuclear Science and Technology Organisation and several other types of perovskite multi-junction cells suitable for space.

In 2024, she demonstrated Australia's first 30 per cent efficient perovskite-silicon tandem cell, certified by the United States' National Renewable Energy Laboratory. At the time, the cell was one of only eight globally to achieve this efficiency. In the same year, her perovskite cells were launched to space aboard the CUAVA-2 satellite, as well as the Waratah Seed, Australia's first payload-ride-share mission supported by the NSW Government. The solar cell development was in partnership with her startup, EurokaPower, which won the Waratah Seed payload competition and is a resident of the National Space Industry Hub in NSW.

Through her work, Anita has advanced Australia's sovereign space capability, fostering international collaboration and training future innovators for highly efficient space cells to increase the sustainability of space operations, to reduce solar array mass and space debris.

Anita's work has been recognised through many awards, including the Eureka Prize for Sustainability Research in 2025, Australian Space Awards Academic of the Year in 2025 and Scientist of the Year in 2024, and the Australian Academy of Science Nancy Millis Medal in 2024. Anita is also an Adjunct Professor at UNSW Sydney and an ARC Future Fellow, a Fellow of the Australian Institute of Physics, the Royal Society of NSW and the Royal Society of Chemistry.

Anita has published 198 refereed journal articles, with over 26,000 citations and an h-index of 74 (Scopus, September 2025).





CATEGORY 2

Excellence in Biological Sciences (Ecological, environmental, agricultural and organismal)

Distinguished Professor Brajesh Singh

Hawkesbury Institute for the Environment,
Western Sydney University



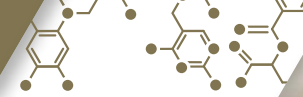
Distinguished Professor Brajesh Singh is a world-leading soil ecologist whose research has advanced global ecosystem science. Brajesh's work has brought about fundamental shifts in our understanding of functional soil ecology, demonstrating that functional redundancy in soil communities is overstated and loss of soil biodiversity leads to direct and proportional loss of ecosystem function. He has also demonstrated the use of soil microbial information to predict, mitigate and adapt to climate change.

Brajesh translates his groundbreaking work in the fundamental theories of functional ecology and soil biology into practical applications to improve farm productivity and environmental sustainability. These include climate adaptation tools for agriculture, management solutions to increase soil organic matter, increased export market access for agriculture producers, and training for farmers, consultants and policy advisors in sustainable agriculture and the Sustainable Development Goals.

His research has been highly influential to global environmental management, with his work directly informing global policies on protection of soil biodiversity. He leads the Global Initiative of Sustainable Agriculture and Environment, serving as Chair of the Food and Agriculture Organization's International Network on Soil Biodiversity, and advising several other international organisations on soil health.

He was awarded the Humboldt Research Award in 2019, the JA Prescott Medal in 2020, the Dorothy Jones Award in 2023 and the Arrell Award for Research Innovation in 2024. He is a Fellow of the American Academy of Microbiology, the Australian Soil Science Society and the Australian Academy of Science.

Brajesh has over 325 journal publications in leading journals including *Nature*, *Science* and *PNAS*, accruing more than 50,000 citations, with an h-index of 107 (Google Scholar).



Excellence in Medical Biological Sciences (Cell and molecular, medical, veterinary and genetics)

Scientia Professor Kaarin Anstey

Director of the UNSW Ageing Futures Institute,
UNSW Sydney

Scientia Professor Kaarin Anstey is pioneering how we manage cognitive ageing and dementia risk reduction. Her epidemiological studies and systematic reviews have identified the key modifiable risk factors for dementia, including obesity, smoking, alcohol use, type 2 diabetes, high cholesterol in mid-life, adherence to the MIND diet, air pollution and hypertension.

Kaarin has translated this work into the Cognitive Health and Dementia Risk Assessment (CogDrisk) tool. A publicly available tool, it is currently being implemented in the Australian primary care sector, with over 23,000 general practitioners trained since 2023. Kaarin has also conducted clinical trials of dementia risk reduction interventions with a focus on modifying trajectories for people in preclinical stages of cognitive decline.

Kaarin's expertise has global reach. In 2020, she led a Global Dialogue on Prevention by the World Dementia Council, and in 2023, she conducted an Asia-Pacific Economic Cooperation Regional Workshop on Dementia Prevention in Malaysia. Kaarin is the only Australian member of the World Health Organization's Guideline Development Group for Risk Reduction of Cognitive Decline and Dementia and is the first Australian academic invited to join the World Dementia Council.

Kaarin was awarded an ARC Laureate Fellowship (2019-2024) and received the 2023 inaugural Royal Society of NSW Award in the Social and Behavioural Sciences. She has contributed over 570 journal articles and book chapters, which have been cited over 47,000 times, giving her an h-index of 116.





CATEGORY 4

Excellence in Engineering or Information and Communications Technology

Distinguished Professor Vivian WY Tam

Associate Dean (Research & Higher Degree Research), School of Engineering,
Design & Built Environment, Western Sydney University

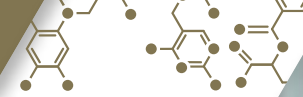
Distinguished Professor Vivian WY Tam is an award-winning researcher in construction engineering and management. A Fellow of the Australian Academy of Technological Sciences and Engineering, her innovative technologies convert construction waste into high-grade resources to combat the climate crisis and build a low carbon, circular economy.

Vivian's patented CO₂ Concrete is created by injecting CO₂ into recycled aggregate, reducing landfill and offering a durable, high-strength alternative to virgin concrete, with a 10 per cent reduction in cost and 50 per cent fewer carbon emissions. The invention was the Australian winner of the Holcim Accelerator Program in 2022, which fosters innovation in construction. CO₂ Concrete represents a paradigm shift in the NSW and Australian construction industry landscape for future sustainable developments, first being used in the Blacktown Animal Rehoming Centre and Edmondson Park's community park.

The global impact of Vivian's work has seen her ranked in Stanford/Elsevier's World's Top 2% Scientists since 2017. Within the field of built environment and design, she is ranked as the 12th most influential scientist in the world.

In addition to over 400 referred journal articles (eight of which are highly cited), around 40,000 citations and an h-index of 106, Vivian has featured in 21 industry-related articles and 100 articles in Climate Conversations.





NSW Early Career Researcher of the Year (Biological Sciences)

Dr Jennifer Matthews

Chancellor's Postdoctoral Research Fellow,
Climate Change Cluster, University of Technology Sydney

Dr Jennifer Matthews is an emerging leader in marine biochemistry whose research is transforming our understanding of coral nutrition and physiology, creating science-led solutions for conservation and climate-resilient policy. She is Deputy Team Leader of the Future Reefs group at the University of Technology Sydney, an exceptional leadership role for an early career researcher.

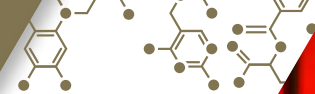
Jennifer leads research on the effects of climate change on NSW's marine ecosystems, including a major coral biodiversity mapping initiative in partnership with the Sydney Institute of Marine Science, Traditional Owners and citizen scientists. This work provides new insights into NSW's valuable biodiversity while strengthening connections between science and communities. She also recently established cross-sector collaborations to develop a 'Reef e-nose', a novel tool for early stress detection, supporting more resilient marine management across NSW.

Jennifer has secured 14 competitive grants exceeding \$3.4 million, including elite Human Frontiers Science Programme and UTS Chancellor's fellowships, a Pure Ocean Innovation Grant (one of five awarded globally), and an ARC Discovery Project. With this support she has undertaken groundbreaking research, including the development of coral nanomedicines such as a coral 'baby food'. This invention significantly enhances coral reproductive success, with immediate applications for restoration and aquaculture.

Jennifer is a leader in promoting equity and dismantling hearing disability barriers, earning her recognition as a 2021 Science and Technology Australia Superstar of STEM. A passionate science communicator, Jennifer has delivered over 150 invited presentations across classrooms, community events, academia and media. Her work to date has been recognised with several awards, including the 2024 Royal Society of NSW Research and Service, and 2023 NSW Tall Poppy awards.

Her scholarly impact includes 35 publications in top journals including *Nature* and *PNAS*, over 1,400 citations, and an h-index of 17.





NSW Early Career Researcher of the Year (Physical Sciences)

Dr Felix Rizzuto

UNSW Sydney

Dr Felix Rizzuto is an international expert in DNA nanotechnology and self-assembly. Felix has worked with academic, industry and international partners to develop synthetic molecules that respond to, adapt to and compute chemical signals. Since joining UNSW Sydney in 2022, Felix has focused on engineering nanorobots from DNA.

His research has shown that light is an ideal stimulus to switch between DNA conformers and propagate DNA nanomaterials, and that DNA can be reprogrammed to form architectures with useful biomaterials properties.

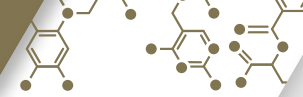
Felix has pioneered a suite of chemical tools that operate biocompatible nanomachinery for future time-delayed delivery, wound healing and tissue engineering functions, driving transformative advances across the materials, engineering and nanotechnology sectors.

His latest breakthroughs in DNA nanorobotics have led to molecular machines that can be activated and recycled with nothing more than a smartphone flashlight, paving the way for highly sensitive and user-controlled nanodevices. This work is positioning NSW and Australia as global leaders in the development of next-generation nanotechnologies for precision therapeutics, delivery and biosensing.

Felix has received over \$2 million in research funding as lead investigator since 2022, including the ARC Discovery Early Career Research Award, a Moderna Australia Fellowship and two ARC Discovery Projects.

Felix's work has been published in *Nature Materials*, *Nature Chemistry* and the *Journal of the American Chemical Society*. He has an exceptional publication record, with over 40 journal articles, 1,800 citations and an h-index of 22.





Leadership in Innovation in NSW

Professor Paul Keall

Director of the Image X Institute and National Health and Medical Research Council Leadership Fellow, the University of Sydney

Professor Paul Keall is a medical physics researcher leading scientists, clinical partners and international collaborators to create novel cancer imaging and targeted radiation therapy methods, translating many of these into clinical practice.

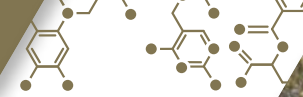
His research has improved the lives of millions of cancer patients and delivered benefits for NSW more broadly by employing highly skilled workers, training the next generation of scientists, creating new medical devices and clinical trials, and generating economic returns.

One of Paul's most notable innovations is a pioneering method to image lungs during breathing with computed tomography. Called four-dimensional CT, it is now its own field of research and a globally used clinical tool. Collectively, his medical devices have resulted in over 40 approved and filed patents, with 20 licences to 10 companies. Five globally available products have directly resulted from these licences, with five more in development.

Paul has launched a NSW startup – SeeTreat – to reduce the burden of cancer by creating globally accessible personalised cancer therapy devices. SeeTreat employs over 20 highly qualified staff, including eight PhDs. He has also led 13 clinical trials, including eight first-in-human trials.

Before his current role, Paul was the Director of Radiation Physics at Stanford University. His contributions to cancer research are internationally recognised, with ExpertScape ranking him #1 worldwide of over 10,000 scientists and clinicians in image-guided radiotherapy. He has over 400 publications, with over 32,000 citations and an h-index of 90.





Innovation in NSW Public Sector Science and Engineering

Dr Brad Law

Principal Research Scientist, Forest Science Unit,
NSW Department of Primary Industries and Regional Development

Dr Brad Law has worked in public service as a wildlife research scientist for over 30 years. In this time, Brad has become an international leader in wildlife ecology and ecologically sustainable forest management. His work focuses on threatened species ecology and developing methods to monitor the long-term population trends of cryptic wildlife.

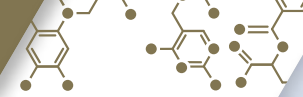
Over the last 10 years, Brad has led multifaceted research to better understand wildlife populations in public and private forests. His innovative ecoacoustics method has allowed for the cost-effective analysis of acoustic data on koalas from several thousand sites and has been rapidly adopted by ecologists. He has collaborated extensively across government departments – including Local Land Services, the Biodiversity Conservation Trust and the Department of Climate Change, Energy, the Environment and Water – as well as with scientists external to government.

Brad's work has materially increased understanding of species populations in NSW, including being used under the NSW Koala Strategy to analyse data from the statewide baseline survey of koalas. His research is also providing unparalleled insights into the impact of and recovery from the 2019-20 Black Summer fires on wildlife. Brad is now harnessing AI to monitor additional forest species in relation to climate change using his team's acoustic archives ('Forest Voices').

In 2021, Brad was elected Fellow to the NSW Royal Zoological Society and is Associate Editor of *Australian Zoologist*, *Australian Forestry* and the *Australian Journal of Zoology*. Between 2015 and 2021, he served on the NSW Threatened Species Scientific Committee. He is also committed to fostering the next generation of researchers, mentoring over 35 postgraduate students.

Brad has produced more than 190 journal papers, chapters and technical reports, receiving over 7,800 citations and an h-index of 48.





Innovation in Science, Technology, Engineering or Mathematics Teaching in NSW

Ryland O'Connell

Hastings Secondary College, Port Macquarie

Ryland O'Connell is a technological and applied sciences teacher who, over the past seven years, has emerged as a passionate and innovative STEM educator within the NSW public education system.

As the STEM Project Officer for the STEM Industry School Partnerships (SISP) program, Ryland crafts engaging learning experiences that connect classrooms with real-world STEM applications. His initiatives include organising excursions to Charles Sturt University and the Dematic Engineering Factory, as well as leading regional programs such as 'Girls in STEM' and an Indigenous robotics club, ensuring that every student, regardless of background, sees a future in STEM.

Ryland has successfully mentored a FIRST Robotics team and coached a FIRST LEGO League team, guiding students to remarkable achievements, including an Australian Championship win and participation in international competitions in Houston. He also developed and facilitated workshops across multiple primary schools, presented at state-level STEM conferences, and secured a dedicated STEM classroom for the Hastings region.

The impact of Ryland's programs has been profound. Students from disadvantaged communities now access learning opportunities previously thought unattainable. His leadership has notably increased engagement among girls and Indigenous students in STEM fields. Through his unwavering commitment – often sacrificing personal time – Ryland has built confidence, ignited ambition and expanded the horizons of his students. His dedication has fundamentally transformed STEM education in his community, inspiring the next generation of engineers, scientists and innovators.





2025 NSW SCIENTIST OF THE YEAR



Professor Nalini Joshi AO

Chair of Applied Mathematics, the University of Sydney

Professor Nalini Joshi AO is a world-leading mathematician whose pioneering work has transformed the field of integrable systems. She is internationally recognised for introducing geometric and asymptotic methods to study discrete and continuous nonlinear mathematical models. Her results have led to crucial information about singularity structure and to improved tests for the identification of critical models called integrable systems.

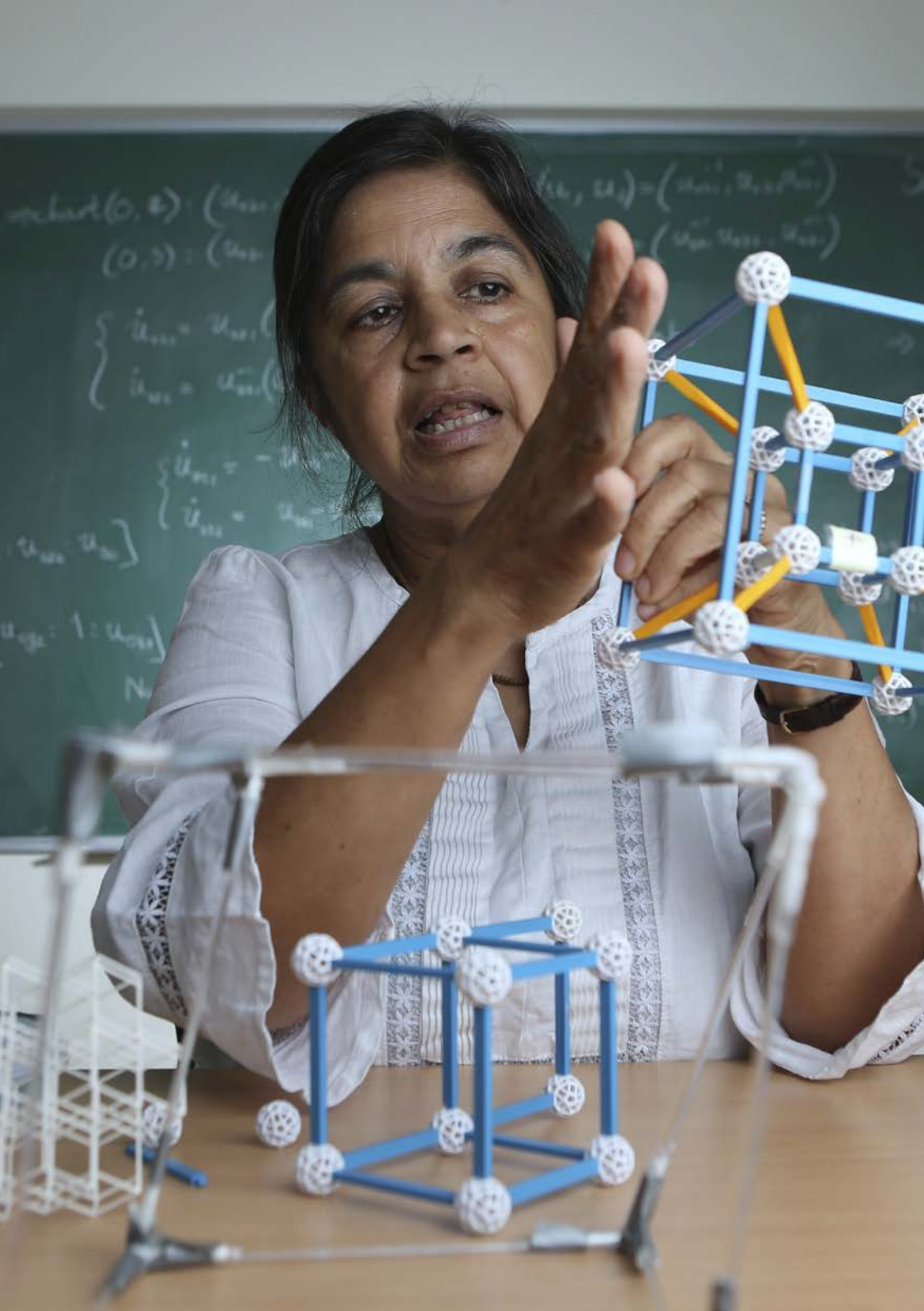
Nalini describes her research as developing methods to solve mathematical puzzles involving non-linear differential and difference equations, studied through a wide variety of lenses, including analysis, algebra, algebraic geometry, topology and asymptotic methods in limits.

Nalini has tackled traditional continuous systems, where her results have brought a more unified understanding. She has led the development of complex analytic techniques to study integrable discrete systems, with applications ranging from collisions of sub-atomic particles to the operation of the New York subway system.

Nalini is the first woman to hold the position of Chair of Applied Mathematics in the School of Mathematics and Statistics at the University of Sydney. She is a past ARC Georgina Sweet Australian Laureate Fellow and past President of the Australian Mathematical Society (2008-10). She was the first Australian to hold the position of Vice-President of the International Mathematical Union from 2019 to 2022.

An ambassador for maths, women and minority groups, Nalini is inspiring our next generation of leaders and demonstrating the powerful applications that numbers can have in our complex world. Nalini generously gives her time to mentor other academics and students. She has mentored over 30 researchers in her career, sharing the power of maths and encouraging leadership skills and independence. She is also passionate about encouraging women to pursue careers in science, technology, engineering, mathematics and medicine, and played an integral part in establishing the Science in Australia Gender Equity (SAGE) program and was its first co-chair.

Nalini was born and spent her childhood in Burma. After moving with her family to Australia in the 1970s, she attended Fort Street High School and gained her Bachelor of Science with honours in 1982 at the University of Sydney, and her PhD at Princeton University under the supervision of the pre-eminent mathematician, Professor Martin David Kruskal.



2025 NSW SCIENTIST OF THE YEAR



Nalini has 121 research papers and book publications and has attracted over \$7 million in grant funding. She has received significant recognition and awards during her career. No stranger to the NSW Premier's Prizes for Science & Engineering, she was awarded the prize for Excellence in Mathematics, Earth Sciences, Chemistry and Physics in 2019. Other awards and recognitions include:

- 2025 Elected honorary member, London Mathematical Society
- 2024 Pollock Award and Lectureship, Royal Society of NSW
- 2021 Rothschild Distinguished Visiting Fellowship, Isaac Newton Institute for Mathematical Sciences, Cambridge University, UK
- 2021 ANZIAM (Australia and New Zealand Industrial and Applied Mathematics) Medal for "Unparalleled contributions to applied mathematics in leadership, gender equity, and promotion of mathematics".
- 2020 The George Szekeres Medal, Australian Mathematical Society
- 2019 Bragg fellowship, Royal Institution of Australia
- 2019-22 Vice-president of the International Mathematical Union
- 2018 Eureka award, Outstanding Mentor of Young Researchers
- 2017 Payne-Scott Professorial Distinction
- 2016 The Australian Financial Review and Westpac 100 Women of Influence
- 2016 Officer of the Order of Australia for services to Mathematics
- 2016 Member, Science in Australia Gender Equity Expert Advisory Group
- 2015 The Australian Financial Review and Westpac 100 Women of Influence
- 2015 London Mathematical Society 150th Anniversary Hardy Fellowship
- 2014-16 Co-Chair, Science in Australia Gender Equity Initiative
- 2014 Member, the Prime Minister's Commonwealth Science Council
- 2013-16 Executive group member, Decadal Plan for Mathematical Sciences
- 2013-14 Member, International Mathematical Union Working Group on Women in Mathematics
- 2012 ARC Georgina Sweet Australian Laureate Fellowship
- 2012-15 Member, Council of the Australian Academy of Science
- 2011-16 Chair, National Committee for Mathematical Sciences
- 2010-12 Board member, Australian Mathematics Trust
- 2010-12 Chair, International Mathematical Union/International Council for Industrial and Applied Mathematics Working Group on Journal Rankings
- 2008-10 President, the Australian Mathematical Society
- 2008 Fellow of the Australian Academy of Science (FAA)
- 2008 Chair, Australian Council of Heads of Mathematical Sciences
- 1997 ARC Senior Research Fellowship
- 1982 Centenary prize of the Australian Association of University Women
- 1982 University Medal in Applied Mathematics, the University of Sydney



The 2024 Premier's Prizes for Science & Engineering (l to r): the Hon. Anoulack Chanthivong MP, Minister for Innovation, Science and Technology, Dr. Jiayan Liao, Mr Dennis Wilson, Professor Susan Coppersmith, Dr Ira Deveson, Distinguished Professor Karu Esselle, Professor Stuart Tangye, Her Excellency the Hon Margaret Beazley, Governor of NSW, Distinguished Professor Ian Paulsen (rear), Distinguished Professor Willy Susilo, Laura Cowie, representing Dr Annette Cowie, Jodie Attenborough (rear), 2024 NSW Scientist of the Year Professor Helen Christensen, Professor Hugh Durrant-Whyte, Chief Scientist & Engineer.

