2022
PREMIER'S PRIZES
FOR SCIENCE
& ENGINEERING

GOVERNMENT HOUSE
SYDNEY

Wednesday 2 November 2022

NSW
GOVERNMENT

The Honour Roll
NSW Scientists of the Year

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

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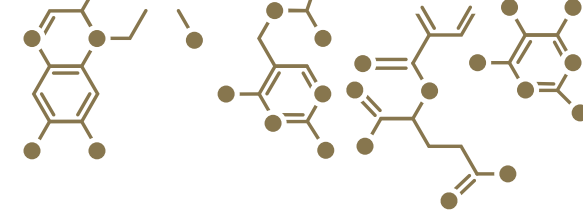
GOVERNMENT HOUSE
SYDNEY
Wednesday 2 November 2022

The Premier's Prizes for Science & Engineering ceremony,
Government House Sydney, Wednesday 1 December 2021.

The 2022 Premier's Prizes for
Science & Engineering are an initiative of
the NSW Government, led by the
Office of the NSW 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 2022 Premier's Prizes for Science & Engineering, hosted at Government House Sydney, on Wednesday 2 November.

Introduction

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

Keynote Address

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

Premier's Address

The Honourable Dominic Perrottet MP
Premier of New South Wales

2022 Premier's Prizes for Science & Engineering Award Presentation

The Honourable Alister Henskens SC MP
Minister for Science, Innovation and Technology

Address by the 2022 NSW Scientist of the Year

The Governor visiting the world-leading Arto Hardy Family Biomedical Innovation Hub at Chris O'Brien Lifehouse on 22 July 2022.

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

One of the wonderful things about being Governor of New South Wales is the opportunities that it presents to interact with scientists and engineers of all ages and areas of expertise. This engagement with science is exhilarating and provides a clear perspective on the extraordinary work being done within our research institutes, universities, schools and centres of excellence.

It is a hugely exciting time for science and engineering. In a presentation given at Government House in August, the winner of the 2011 NSW Scientist of the Year Award, Professor Michelle Simmons AO, spoke about the achievements of her team in producing the world's first integrated circuit manufactured at the atomic scale. "We've stepped off the edge of human knowledge," she said, and "opened up a new technology that will enable us to see and understand the world in a way we never have before."

This is the vibrant environment our next generation of scientists and engineers, taught by our State's exceptional teachers, will enjoy – a time when they will have opportunities to be participating in research breakthroughs and discoveries that are set to benefit people and the planet for decades to come. I was honoured to meet some of them at the opening of this year's International Science School at The University of Sydney's Nanoscience Hub.

The pursuit of scientific excellence and innovation continues to provide solutions to many of our world's greatest challenges, including in the medical field, where bridges between biology, technology and engineering are revolutionising medical research, care and treatment. This year, I have had the privilege of seeing the impact of this kind of innovation in the area of cancer treatment when visiting the medical facilities of our State.

Congratulations to each of this year's NSW Premier's Prizes for Science & Engineering winners.

As Patron, I am delighted to join the Premier and our dedicated science community to celebrate the brilliant and bold work of scientists, researchers, engineers and educators across New South Wales.

Margaret Beazley.

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

Message from the
Premier of New South Wales

Welcome to the 2022 NSW Premier's Prizes for Science & Engineering, shining a spotlight on the wealth of scientific and engineering talent, expertise and achievement in our State.

At this moment in history, our world faces an array of unprecedented challenges in social, health, environmental and economic spheres. As always, we look to the leading scientific and engineering minds to solve these challenges and find new solutions.

In this important endeavour, NSW can be a world leader in scientific and engineering research and practice if we make the most of our home-grown talent and world-class resources, supported by the right investment.

That is why the 2022 NSW Budget delivered the single largest boost to scientific research, innovation and technological development in the State's history: a landmark $832.7 million investment over four years to support R&D and commercialisation initiatives, create new jobs and drive growth in emerging industries and deliver long-lasting economic prosperity.

This is important for everyone in our State. If we secure a thriving ecosystem for science and engineering – an ecosystem encompassing everything from education and skills, to supporting infrastructure, research funding and investment pipelines, commercialisation opportunities and logistics chains – we will be better placed than ever to turn big ideas and cutting-edge research into jobs, new industries, and ultimately, opportunity and prosperity for future generations.

That is our Government's mission. But we cannot succeed without the people whose painstaking work we honour tonight: the best and brightest of our scientific and engineering communities.

So on behalf of the NSW Government and the people of NSW, I congratulate and thank all those honoured tonight, and I look forward to seeing your work change our world for the better and set up our State for a brighter future.

The Honourable Dominic Perrottet MP
Premier of New South Wales

The NSW Chief Scientist & Engineer, Professor Hugh Durrant-Whyte (left) with the Minister for Science, Innovation and Technology, the Hon. Alister Henskens MP, at the launch of the *20-Year R&D Roadmap*, The Quantum Terminal, Tech Central, 3 May 2022.

Message from the
NSW Chief Scientist & Engineer

Welcome to the 2022 Premier's Prizes for Science & Engineering. My sincere thanks once again to our Patron, the Governor of New South Wales, Her Excellency the Honourable Margaret Beazley AC KC and Mr Dennis Wilson, both for their ongoing support and for allowing us to hold tonight's ceremony at Government House.

The Premier, the Honourable Dominic Perrottet MP, is regrettably unable to join us tonight, but has recorded a message that will be played during the ceremony.

As the Premier states in his foreword, this year has seen a historic level of support provided to R&D in NSW, including over $700 million allocated to the establishment of the Future Economy Fund, designed to accelerate the full life cycle of innovative, high-growth business in priority sectors, and drive productivity in emerging high-value industries, such as digital technology, medical technology and the clean economy.

Importantly, this year also saw the appointment of the State's first Minister for Science, Innovation and Technology, the Honourable Alister Henskens SC MP, who represents the Premier here tonight. A truly passionate advocate for ensuring that our most innovative thinking is translated into highly impactful outcomes, the Minister has had a busy first year, visiting university campuses and research institutions across NSW, as well as providing my Office with an unparalleled level of support.

In May, the Minister launched the *20-Year R&D Roadmap*. This crucial document provides a blueprint to prioritise investment in areas where NSW has competitive advantages nationally or internationally, or which are of strategic importance for our future social, environment and economic wellbeing.

Other notable achievements in a busy year for my Office include the establishment of both the Semiconductor Sector Service Bureau and Decarbonisation Innovation Hub, the launch of the Small Business Innovation & Research program, the Bushfire Technology Pilots Program, the Bushfire Commercialisation Fund and the Tech Central Research & Innovation Infrastructure Fund.

Finally, allow me to congratulate our 2022 Premier's Prize winners. Science and engineering have a bright future in NSW, due in no small part to the achievements of those who we celebrate tonight.

Professor Hugh Durrant-Whyte
NSW Chief Scientist & Engineer
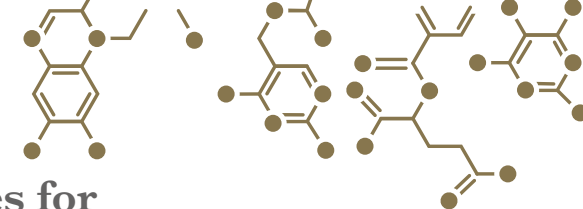
Premier's Prizes for Science & Engineering

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 New South Wales.
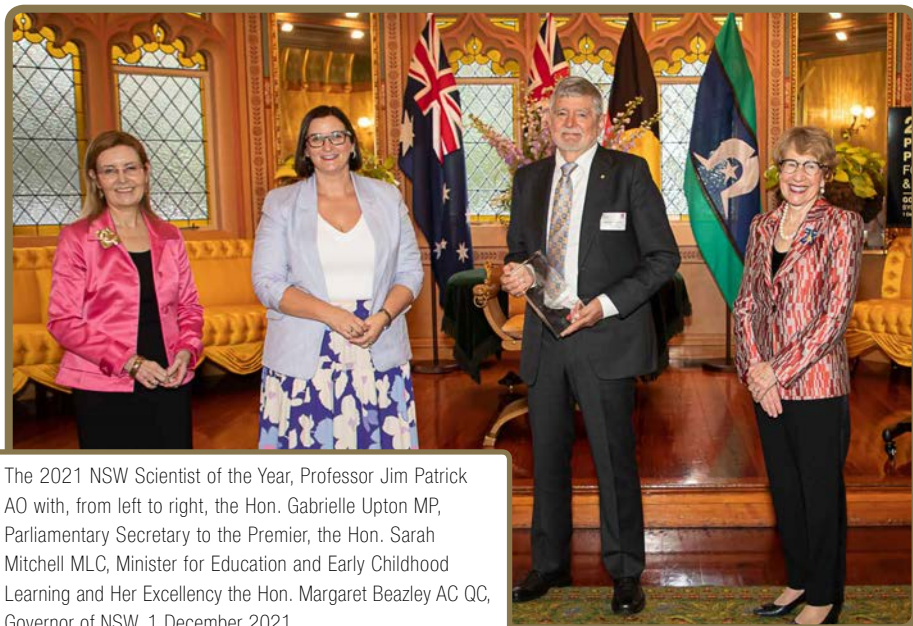
The 2021 NSW Scientist of the Year, Professor Jim Patrick AO with, from left to right, the Hon. Gabrielle Upton MP, Parliamentary Secretary to the Premier, the Hon. Sarah Mitchell MLC, Minister for Education and Early Childhood Learning and Her Excellency the Hon. Margaret Beazley AC QC, Governor of NSW, 1 December 2021.

2022 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
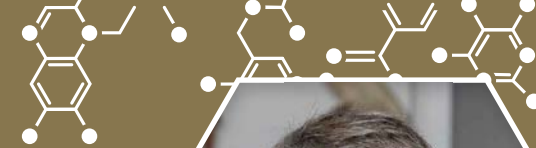
Excellence in Mathematics, Earth Sciences, Chemistry or Physics

Professor Geordie Williamson FRS FAA
The University of Sydney

Professor Geordie Williamson is the inaugural Director of the Sydney Mathematical Research Institute and Professor of Mathematics at The University of Sydney. His major research interests are in representation theory, a branch of pure mathematics, as well as algebra, geometry and number theory.

Geordie frequently questions consensus, opening new pathways to tackle open problems. In a recent paper published in the preeminent journal *Nature*, Geordie worked with Google's DeepMind and mathematicians at Oxford University to show that machine learning can be applied to complex fields such as knot theory and representation theory. This is one of the first examples where machine learning has been used to guide human intuition on decades-old problems.

Geordie is well known for fundamental contributions to the field of representation theory. Early in his career, he worked on a new proof and a simplification of the Kazhdan-Lusztig conjectures, which concern deep symmetry in higher dimensional algebra. He later found several counterexamples to multiple conjectures, showing that the expert consensus of more than 30 years was wrong.

Geordie was central to The University of Sydney's success in attracting over $10 million to fund the establishment of the Sydney Mathematical Research Institute (SMRI) in 2018, NSW's first and only mathematical research centre. Since its inception, SMRI has attracted over 100 of the world's best mathematical minds to undertake research in NSW.

In 2018, Geordie was elected as a Fellow of the Australian Academy of Science and the Royal Society, becoming the youngest living Fellow of the latter. He has won four major international mathematics prizes and has received offers of professorships from world-leading institutions.

Geordie has published over 40 papers and two books. In addition to *Nature*, his publications have appeared in high profile mathematical journals, including the *Annals of Mathematics* and the *Journal of the American Mathematical Society*.

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

Distinguished Professor Michelle Leishman FRSN
Macquarie University

Distinguished Professor Michelle Leishman is a plant ecologist globally recognised for groundbreaking research on invasive plants and pathogens, climate change impacts and adaptation, and urban greening. She has a reputation for finding creative solutions to big issues in conservation.

Regularly advising government, industry and other expert panels, Michelle plays a critical role in guiding policy and managing threats from invasive plant species in NSW and Australia. This includes leading research to model current and future climate suitability for over 700 exotic plant species, translated into an easy-to-use online tool for natural resource managers.

In collaboration with the NSW Government and nursery and garden industry, Michelle is leading the development of the innovative Ornamental Plant Risk Assessment Tool. This provides the evidence base for the Gardening Responsibly Program, a voluntary certification scheme promoting the use of plants with low weed risk. She also leads the collaborative Which Plant Where research program, a five-year program to facilitate climate-resilient urban greening. The Which Plant Where climate-ready plant selector tool is the first of its kind globally.

In recognition of her contributions, Michelle was recently made a Fellow of the Royal Society of NSW and last year was named as Eminent Ecologist by the *Journal of Ecology*.

Michelle has attracted over $22 million in research funding and has over 190 publications, attracting 18,800 citations, with an h-index of 57. Her publications have appeared in high impact journals, including *Nature* and *Science*.

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

Professor Justin Yerbury AM
University of Wollongong

P rofessor Justin Yerbury is a molecular biologist dedicated to understanding motor neurone disease (MND), a devastating disease where motor neurons are attacked, leading to loss of muscle control, muscle atrophy and, invariably, death. A leader in this field, Justin is also a tireless advocate for MND patients, working to effect change in equity and accessibility.

While the precise mechanism causing cellular dysfunction in affected motor neurons remains unknown, Justin's research has radically shifted the understanding of the mechanism of protein aggregation into deposits and cellular dysfunction in MND.

This represents the first real advance in understanding protein deposits in decades and, for the first time, links biochemical processes to the physical symptoms of MND. These findings have been accepted by leaders in the field, and more generally across the biochemistry, cell biology and neuroscience fields.

Justin's work also focuses on therapy development for NSW families, with his discoveries in collaboration with other national and international leaders resulting in the preclinical testing of therapeutic strategies, the development of therapeutic antibodies and genetic tests for MND. The potential benefit of this in NSW is huge, with reports of non-genetic case rates seven times higher than the national average in several NSW towns, and with several large NSW families affected by the inherited form.

Justin has published over 90 articles in high impact journals, including *Nature Communications* and *PNAS*, with an h-index of 39. Collectively, his work on protein deposits has been accessed over 40,000 times and cited over 2,000 times.
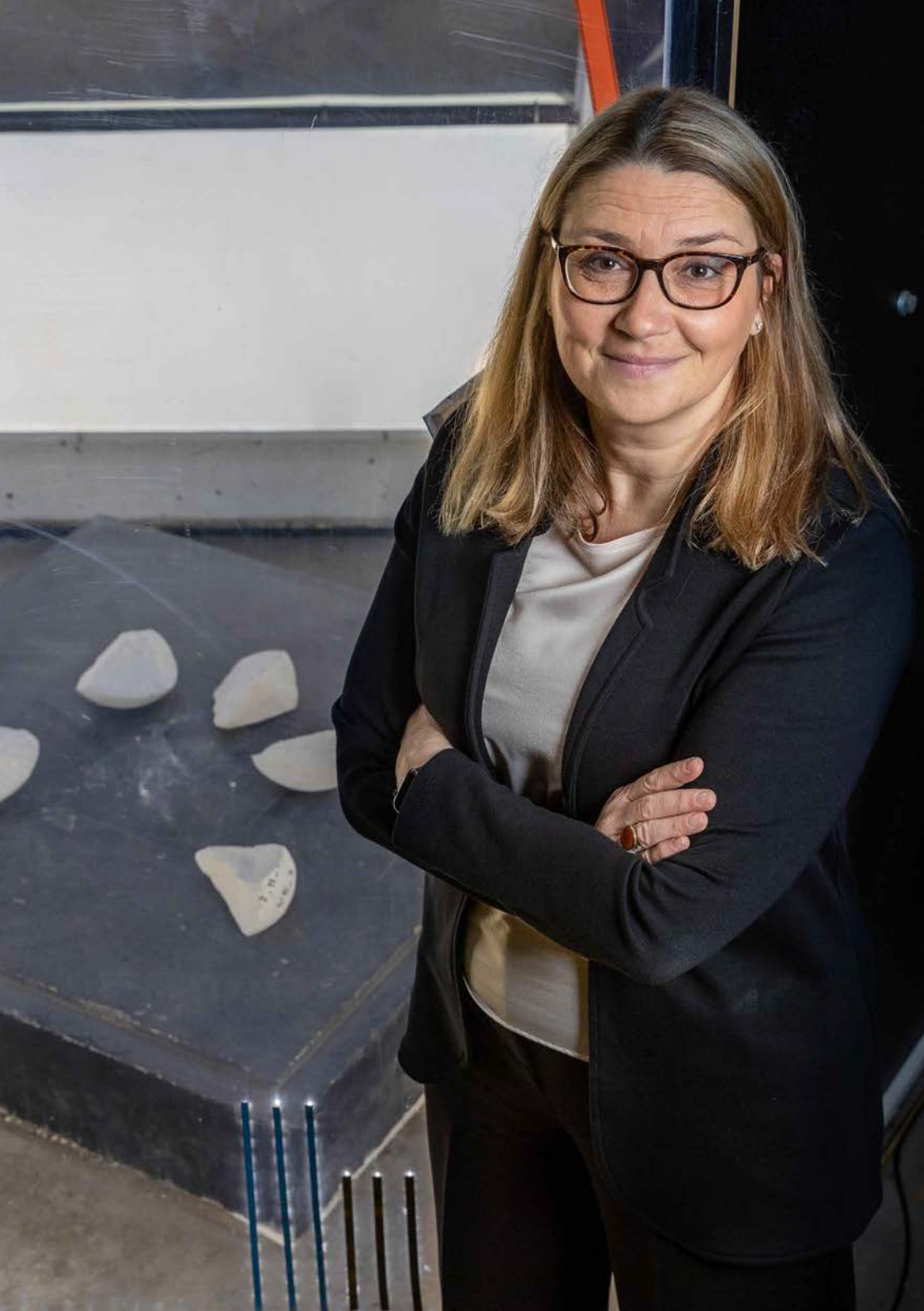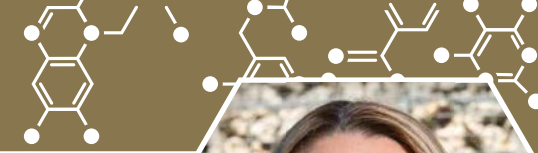
Excellence in Engineering or Information and Communications Technology

Professor Anna Giacomini
PhD BEng MSCivilEng

The University of Newcastle

Professor Anna Giacomini is a pioneer in the field of rock mechanics and rockfall analyses. Her research represents a new era in the optimisation of rockfall mitigation strategies, saving lives and money in Australia and worldwide.

Rockfalls pose a significant threat to life and infrastructure along transport corridors, recreational areas and walking tracks, with mitigation costing governments and industry tens of millions of dollars each year. Mitigation costs are expected to climb as extreme climatic events increase rock instabilities and exposure to risks for people and infrastructure.

Anna applies novel field experiments and complex laboratory testing to understand rockfall phenomena and uses this to develop world-leading technologies to model, assess and optimise the design of rockfall mitigation systems.

This work has been translated into new cost-effective and safe-engineered designs used by government and industry to improve resilience against rockfall hazards in NSW. The novel monitoring technology, advanced numerical modelling of protection systems and innovative hazard assessment approaches developed by Anna and her team are also implemented in the resource sector to improve safety and reduce operational impacts.

In 2019, Anna's contribution to addressing problems within engineering mechanics and applied mathematics was recognised with the John Booker Medal from the Australian Academy of Science.

Anna has secured more than $7.5 million in funding from competitive schemes and industry. She is a leading global contributor in the field of rockfalls research, with more than 145 publications and an h-index of 21.

NSW Early Career Researcher of the Year
(Biological Sciences)

Dr Sudarshini Ramanathan
BSc (Med) MBBS (Hons) FRACP PhD
The University of Sydney

Dr Sudarshini Ramanathan is a neurologist, clinician-scientist, and emerging international leader in neuroimmunology. Darshi heads the Translational Neuroimmunology Group at The University of Sydney, and leads a basic science and clinical research program.

Autoimmune neurological conditions can result in devastating disability, including blindness, paralysis and seizures. Darshi's work has resulted in improved understanding of the pathophysiology of these conditions, and optimised diagnosis and treatment.

Her program has led the field in defining a novel disorder known as myelin oligodendrocyte glycoprotein antibody-associated disease (MOGAD) that was, until recently, unrecognised in adults. She published some of the earliest studies demonstrating MOG antibodies are an essential biomarker of reversible blindness and paralysis, and identifying the earliest clinical and radiological hallmarks of this disease to facilitate diagnosis.

Darshi established and leads the Australasian MOGAD Study Group, and collaborates with 145 clinicians from 45 centres, evaluating over 700 children and adults with MOGAD – one of the largest international cohorts for this condition. Her work has had real-world impact, including the transformation of MOG antibody testing from a research assay into routine diagnostic use. Darshi led the first 26-centre trial of treatment efficacy in MOGAD, and pioneered the discovery that cautious steroid weaning at disease onset can reduce the risk of relapses; and that treatment with specific immunotherapy improves outcomes. Her work facilitated approval of intravenous immunoglobulin for the treatment of MOGAD, now available through Medicare. Darshi is the only Australian neurologist on a global expert panel developing the first international diagnostic criteria for MOGAD.

Darshi is an National Health and Medical Research Council (NHMRC) Investigator Fellow, and has been awarded over $5.5 million in research funding. She has authored over 60 publications, with an h-index of 25 and over 2,900 citations.
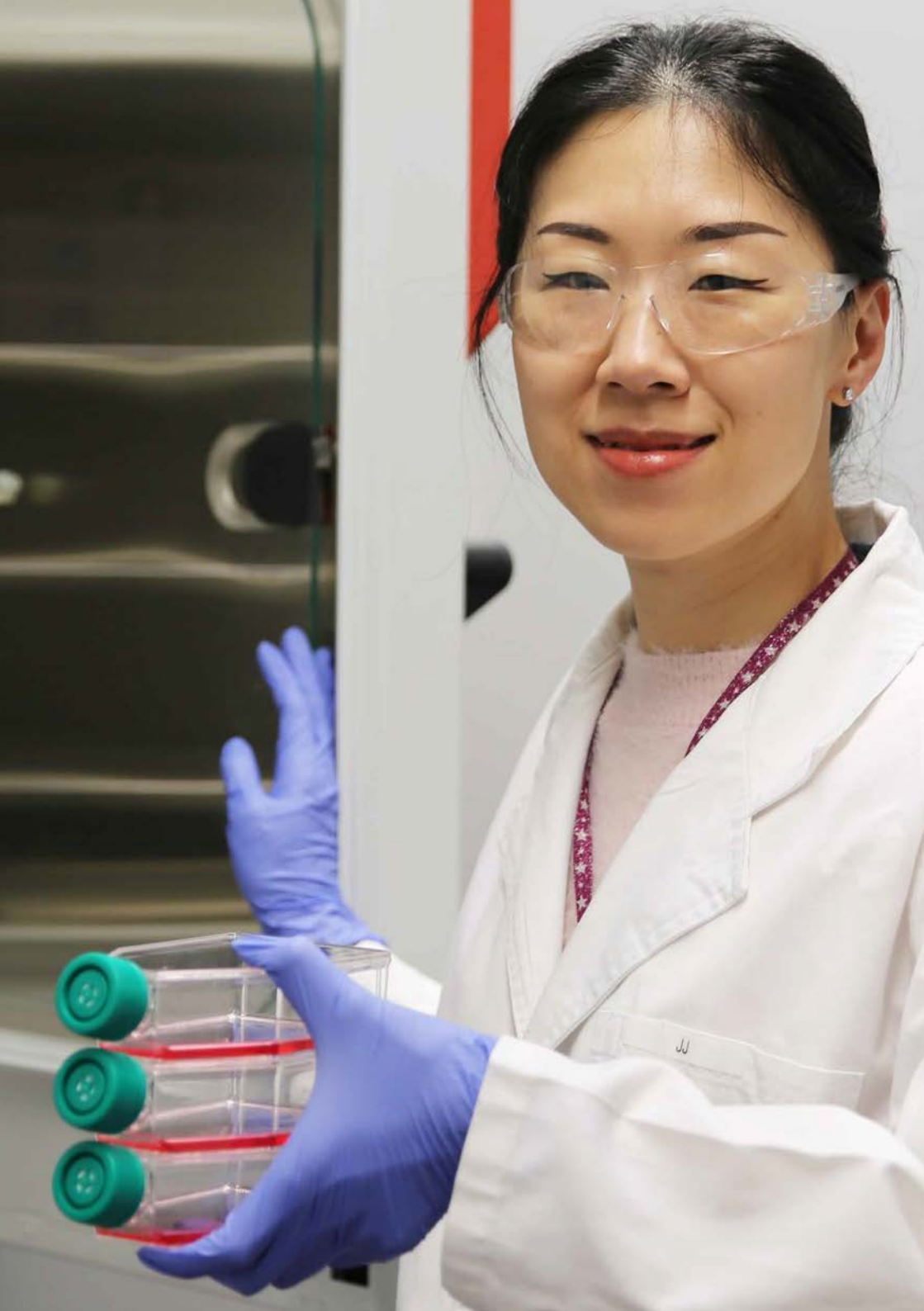
NSW Early Career Researcher of the Year
(Physical Sciences)

Dr Jiao Jiao Li
University of Technology Sydney

Dr Jiao Jiao Li is a biomedical engineer whose research has pioneered the development of world-class methods and materials to repair musculoskeletal tissues lost due to trauma or disease.

Musculoskeletal conditions, including osteoarthritis and bone fractures, are the leading cause of chronic disabilities in Australia, resulting in $9.2 billion in direct healthcare costs. Jiao Jiao's research has the potential to improve outcomes for over seven million Australians with musculoskeletal diseases, with significant medical and economic benefits.

Jiao Jiao's work was instrumental in developing world-first bio-ceramic implants that help regrow natural bone. She also worked on validation studies with international partners, a fundamental step in bringing Australian inventions to the global orthopaedic market.

Jiao Jiao's current work focuses on stem cell-based therapy with significant potential to treat osteoarthritis, which causes chronic pain and risk of premature death for one in eight Australians.

In recognition of the exceptional contribution of this work to health outcomes, Jiao Jiao has won over 30 awards, including the 2022 NSW Young Tall Poppy Award. In 2021, she was the national winner of Falling Walls Lab Australia for her stem cell work, and a Research Australia Discovery Award national finalist for her bone implant work. Jiao Jiao is also a Science & Technology Australia 2021-22 Superstar of STEM, one of 60 Australian women in STEM selected to be national role models for the community.

Jiao Jiao has over 60 publications in highly ranked journals, with more than 1,100 citations since 2012 and an h-index of 18. She has received prestigious NHMRC and Endeavour fellowships and is the Co-Deputy Director of the $7 million Australian Research Council Training Centre for Innovative BioEngineering.

Leadership in Innovation in NSW

Professor Luke Wolfenden PhD

The University of Newcastle and Hunter New England Local Health District

Professor Luke Wolfenden is a world leader in implementation science and chronic disease prevention. His work focuses on integrating implementation researchers into NSW Health's population health units to co-design, test and rapidly translate innovations. Shifting research from universities to population health units has transformed and optimised NSW's preventative health system to keep more people free from chronic disease longer.

Luke leads a team of over 30 staff in Hunter New England Health's Population Health Unit, considered worldwide as an exemplar model for the translation of public health research into practice.

Luke's work has had a marked impact on NSW Ministry of Health's approach to obesity prevention, including to the development and updating of the implementation model for the delivery of the $79 million Healthy Children's Initiative to address a Premier's Priority. Modelling suggests this initiative will reduce obesity by three per cent by 2025.

His research has also informed the delivery of innovative obesity interventions across NSW and nationally, including an e-menu planning program for childcare services, a mobile lunchbox program and a healthy sporting club program.

Luke is the Director of the National Centre of Implementation Science and Co-Director of the World Health Organization (WHO) Collaborating Centre for Evidence-based Non-Communicable Disease Program Implementation. He regularly advises and contributes to the WHO, the United Nations Food and Agricultural Organization and NSW's Ministry of Health, Treasury and Office of Preventative Health.

Luke has over 420 publications and is ranked in the top 0.01 per cent of published researchers in the field of health promotion, with an h-index of 55.

Innovation in Public Sector Science and Engineering

Professor David Eldridge
NSW Department of Planning and Environment and UNSW Sydney

Professor David Eldridge is a rangeland scientist who, during a long career as a NSW Government scientist, has made significant contributions to the sustainable management of rangelands and their soils and biota in Australia and worldwide.

Rangelands (arid and semi-arid areas) cover around 60 per cent of NSW, supporting iconic ecosystems and economically important grazing industries. David's work has been instrumental in promoting the importance of biological soil crusts in influencing soil erosion and fertility in these areas, ensuring they are an integral part of national environmental monitoring programs.

As an international authority on woody plant encroachment, David has worked with researchers in Spain and the USA to promote the importance of shrublands and maintaining woody vegetation in rangelands to improve soil carbon storage.

David's recent work has focused on improving outcomes on NSW conservation reserves more broadly. He pioneered Australian research on rewilding native animals, providing strong ecological support for reintroducing locally extinct mammals. He has also assessed risks from livestock grazing in NSW reserves, and risks from horse activity in the iconic Kosciuszko National Park.

Demonstrating his international influence, David is currently on the board of the BIODESERT research project in Spain, a member of the Global Drylands Centre and the European Union's Drylands and Desert Restoration Hub.

A prolific researcher, David has published over 270 papers, with an h-index of 67. He is dedicated to sharing his expertise through teaching and mentoring, editing for several journals, teaching at UNSW Sydney, training NSW Government staff and community members, and running science writing workshops in China and Iran.

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

Ian Preston
Murrumbidgee Regional High School

Ian Preston is a transformational educational leader who has dedicated over three decades to improving the quality, quantity and equity of science, technology, engineering and mathematics (STEM) education in NSW, Australia and internationally.

Ian has always been at the forefront of implementing innovative teaching methods, from pioneering telematics education in his early career, to his recent use of gaming-based software to engage students.

Ian leads several STEM programs, reaching thousands of students and teachers. As Deputy Principal of the NSW Virtual STEM Academy, Ian works to inspire students in STEM through innovative teaching methods, opportunities and partnerships, with a focus on female, Indigenous, rural, regional and remote students. Under his leadership, the program has grown from eight students across four schools in 2021 to an estimated 350 students across 15 schools in 2022. Further expansion measures are in place for 2023 and 2024.

Ian also established and leads the highly successful Murrumbidgee Academy of STEM Excellence (MASE) across three high schools, 18 primary schools and one special school. Despite COVID-19 disruptions, the MASE increased overall student STEM engagement by over 400 per cent in 2021. He was also instrumental in establishing the Australian and New Zealand STEM Education Alliance (ANZSEA) program, a large collaborative network of STEM educators in Australia and New Zealand.

In recognition of his exceptional contributions, Ian received a 2022 Commonwealth Bank Teaching Award and the MASE received the Secretary's Award for an Outstanding School Initiative. In 2021, Ian received the Minister's Award for Excellence in Teaching and the 2021 Secretary's Award for an Outstanding School Initiative for ANZSEA.

2022 NSW SCIENTIST OF THE YEAR
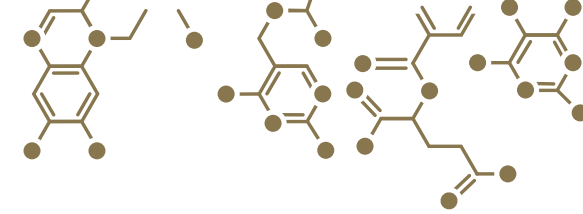
Professor Glenda Halliday FAA FAHMS

Research Fellow, National Health and Medical Research Council
Professor of Neuroscience, Faculty of Medicine and Health,
The University of Sydney

Professor Glenda Halliday is a neuroscientist, internationally acclaimed for her research on neurodegeneration, which has had major implications on understanding disease progression.

Glenda's scientific contribution has been to determine how the human brain is affected both structurally and biochemically by neurodegenerative diseases. Her current research work is focused on the underlying causes of the non-Alzheimer's neurodegenerative diseases, particularly Parkinson's disease and frontotemporal dementia.

After early training in comparative neuroanatomy, Glenda devised novel methods for immunohistochemistry and quantitative morphometry of post-mortem brains, involving 3D reconstruction to accurately determine volumes of brain nuclei and numbers of neurons and glial cells (the supporting cells that surround them).

Her approach then embraced biochemical and molecular techniques. To access tissue from patients, Glenda established widespread collaborations with neurologists to obtain full clinical histories for donated material, subsequently establishing the Sydney Brain Bank for her group and others to use.

She expanded her techniques to include genetic studies and determine the changes in both genetic and sporadic forms of neurodegenerative diseases.

Glenda's work has changed international diagnostic criteria and recommendations for adequate patient identification and management for a number of neurodegenerative diseases, providing differentiating characteristics and assessments that now include disease staging schemes. She has defined unique roles of certain genes and proteins, now being used to develop diagnostic protocols and potential therapies.

2022 NSW SCIENTIST OF THE YEAR

Glenda has assembled a highly effective team and retains a close personal involvement in the laboratory. She is passionate about promoting neuroscience and mentorship in the field and has made significant contributions to research evaluation.

Glenda was made a member of the Australian Academy of Science in 2021 and a member of the Australian Academy of Health and Medical Sciences in 2014. She has been recognised professionally by appointments as an NHMRC Senior Leadership Fellow in 2019, Professor of Neuroscience at The University of Sydney in 2016, NHMRC Senior Principal Research Fellow in 2010 and Professor of Medicine at UNSW Sydney in 2003. She has been a Research Fellow since 1988.

Glenda has received significant recognition and awards during her career, including:

- 2021 Robert A. Pritzker Prize for Leadership in Parkinson's Research, Michael J Fox Foundation

- 2020 NHMRC Elizabeth Blackburn Investigator Award for Leadership in Clinical Medicine and Science

- 2018 Highly Cited Researcher, Clarivate Analytics

- 2017 C. David Marsden Lecture Award, International Parkinson and Movement Disorder Society

- 2016 Cozzarelli Prize for outstanding 2015 paper, National Academy of Sciences, USA

- 2014 NHMRC Elizabeth Blackburn Fellowship – Clinical Award

- 2013 NHMRC High Achiever

- 2011 Nina Kondelos Prize, Australian Neuroscience Society for outstanding female contribution to basic or clinical neuroscience.

Glenda has over 700 journal publications, four book chapters and one book, with over 75,000 citations and an h-index of 123 (Google Scholar).

The 2021 Premier's Prizes for Science & Engineering (L to R): 2021 NSW Scientist of the Year Professor Jim Patrick AO, Distinguished Professor Fang Chen, Dr Terry O'Dwyer, the Hon. Sarah Mitchell MLC, Associate Professor Rona Chandrawati, Mr Nicholas Carlile, the Hon. Gabrielle Upton MP, Professor Peter Steinberg, the Hon. Margaret Beazley AC QC, Governor of NSW, Dr Louise Causer, Ms. Cassandra Portelli, Distinguished Professor John Kaldor (on behalf of Professor Greg Dore), Mr Dennis Wilson, Distinguished Professor Richard Bryant, Professor Shujun Zhang, Professor Hugh Durrant-Whyte, NSW Chief Scientist & Engineer.