THE 2025 AUSTRALIAN MUSEUM EUREKA PRIZE WINNERS ANNOUNCED

19 top Australian scientists awarded for pushing the boundaries of knowledge and innovation

SYDNEY, NSW, AUSTRALIA, September 3, 2025 /EINPresswire.com/ -- The very best in Australian scientific achievement was recognised tonight at the Australian Museum Eureka Prizes (AMEP). Nineteen winners were announced, with work spanning breakthroughs in forensic science; using octopus DNA to unlock the Antarctica's climate secrets, and enabling universal accessibility of genomic sequencing, among others.

Winners include:

Distinguished Professor Ian Paulsen from Macquarie University for Leadership in Science
Dr Aaron Eger from UNSW and Kelp Forest Alliance for Emerging Leader in Science
PINK1 Parkinson's Disease Research Team, Walter & Eliza Hall Institute, for Scientific Research
Flinders University and Forensic Science SA for Excellence in Forensic Science
Details for each of the awards below

Australian Museum Director and CEO, Kim McKay AO, said the winners demonstrate the critical need of supporting and promoting Australian scientific achievement and the importance of investment in research.

"The Australian Museum Eureka Prizes celebrate the very best of Australian science across an extraordinary range of fields. For 35 years, the awards have recognised the talent, creativity and collaboration that drive discovery and deliver solutions for our world. These awards remind us not only of the importance of science to Australia's future, but also of the global impact our researchers, communicators and students make," Kim McKay said.

Key themes emerging from this year's AMEP winners include the prevalence of ocean research projects, from eco-engineered seawalls, octopus DNA to kelp forests and coral bleaching; democratising access to science through genetic analysis; and important citizen science initiatives. Parity between male and female awardees was also achieved for the first time, demonstrating that the full spectrum of scientific achievement is revealed.

"The 2025 Australian Museum Eureka Prizes proves that Australian research needs to be

supported and funded so scientists can continue to develop practical solutions to global challenges. The emphasis on ocean systems, from kelp forests to coral reefs, reflects growing recognition of marine ecosystems' critical role in climate resilience and biodiversity conservation," she said.

Professor Shane Ahyong, Acting Chief Scientist at the Australian Museum Research Institute, said the Australian Museum Eureka Prizes help elevate scientific progress and innovation.

"Scientific achievement deserves recognition, as does the work behind it. The AM Eureka Prizes is an important moment to recognise that each new endeavour begins not with certainty, but with the courage to navigate inevitable setbacks and uncertain outcomes. Effort, perseverance and focus delivers the very best of scientific discovery," Professor Shane Ahyong, one of the world's leading zoologists, said.

Now in its 35th year, the Australian Museum Eureka Prizes continue to highlight the nation's most significant science achievements; this year offering a total prize pool of $190,000. Since its inception, the Australian Museum has awarded more than $4.9 million in prize money and more than 528 prizes.

The 2025 AM Eureka Prize winners

Research & Innovation
NSW Department of Climate Change, Energy, the Environment and Water Eureka Prize for Environmental Research

Living Seawalls: Macquarie University; UNSW; and Sydney Institute of Marine Science (NSW)
The Living Seawalls project transforms marine constructions into thriving habitats using modules shaped to mimic natural shoreline features. In Sydney Harbour, these attracted 115 species — 20 per cent more than plain seawalls. The research provides evidence for eco-engineering worldwide, showing how marine infrastructure can enhance biodiversity, water quality and climate resilience.

University of Technology Sydney and Australian Federal Police Eureka Prize for Excellence in Forensic Science

Towards a Smart PCR Process: Flinders University and Forensic Science SA (SA)
Towards a Smart PCR Process developed a DNA amplification system that uses real-time feedback and machine learning to adjust the process as it runs. This improves the quality of genetic data from degraded or low-level samples, increasing the chances of recovering usable results for forensic investigations and other scientific applications.

Aspire Scholarship Eureka Prize for Excellence in Interdisciplinary Scientific Research

Octopus and Ice Sheet Team: James Cook University; CSIRO; Antarctic Research Centre (QLD, TAS)
Using modern octopus DNA, the Octopus and Ice Sheet Team discovered that biological connections between Antarctic octopus' populations can only be explained if the West Antarctic Ice Sheet had previously collapsed. Their research dated the collapse at 120,000 years ago, the last time temperatures were 0.5–1.5°C above pre-industrial levels.

Australian Research Data Commons Eureka Prize for Excellence in Research Software

dartR: University of Canberra (ACT)
The dartR team created free, open-source software that helps researchers around the world analyse complex genomic data. By supporting decisions in conservation, agriculture and health, dartR has transformed how genetic data is used – improving breeding programs, protecting endangered species and advancing research across more than 900 peer-reviewed studies.

Australian Infectious Diseases Research Centre Eureka Prize for Infectious Diseases Research

Vaccines and Infectious Diseases Group: The University of Adelaide; SA Pathology; Department for Health and Wellbeing; Women's and Children's Hospital; and Northern Territory Health (SA, NT)
The Vaccines and Infectious Diseases Group demonstrated that one vaccine can protect against both meningococcal B disease and gonorrhoea – two serious infections that disproportionately impact First Nations young people. Their research has changed global vaccine policy, informed national programs and offers a new strategy to curb gonorrhoea as antibiotic resistance grows.

ANSTO Eureka Prize for Innovative Use of Technology

The Fission Chips Team: Macquarie University (NSW)
In a paradigm shift for nanosensor production, Associate Professor Noushin Nasiri and her Fission Chips Team developed a cheaper, more efficient sensor using non-toxic vinegar in a special low-temperature joining technique. The sensors have a myriad of applications in smart, wearable systems, such as monitoring skin cancer risk or pregnancies in cattle.

Macquarie University Eureka Prize for Outstanding Early Career Researcher

Dr Hasindu Gamaarachchi: UNSW and Garvan Institute of Medical Research (NSW)
Modern genomic sequencing is completely changing fields such as agriculture, medicine and ecology. However, it generally requires huge supercomputers and long processing times. Dr Hasindu Gamaarachchi has developed new scalable, efficient and accessible computer processing, allowing more people to unlock the potential of genomic sequencing and democratising the whole field.

Department of Defence Eureka Prize for Outstanding Science in Safeguarding Australia

Dr Kamal Kant Gupta (Department of Defence) and Dr Jafar Shojaii (Macquarie University): The University of Melbourne, Swinburne University of Technology (VIC, NSW)
Integrated circuits are ubiquitous, but are vulnerable to electromagnetic and particle radiation effects, typically found in space and high-interference environments. Using novel techniques and architectures, Dr Kamal Kant Gupta and Dr Jafar Shojaii have developed innovative interference-resistant chip designs, which can protect high-value Defence, satellite and civilian electronic systems.

UNSW Eureka Prize for Scientific Research

PINK1 Parkinson's Disease Research Team: Walter and Eliza Hall Institute (VIC)
The PINK1 Parkinson's Disease Research Team has revealed the first 3D structure of a key protein linked to early onset Parkinson's disease. By showing how the damage-sensing protein PINK1 attaches to mitochondria, they assist drug discovery – opening new paths to remove faulty cell components and slowing or halting disease progression.

University of Sydney Eureka Prize for Sustainability Research

Professor Anita Ho-Baillie: The University of Sydney (NSW)
Driving efficiency of solar cell energy conversion from about 30 per cent to 40 per cent, Professor Anita Ho-Baillie combines multiple semiconductor materials, such as metal halide perovskites, into one solar cell to better utilise the solar spectrum. She has solved thermal and moisture instability problems with perovskite solar cells, a major leap towards commercialisation.

Leadership
Eureka Prize for Emerging Leader in Science

Dr Aaron Eger: UNSW and Kelp Forest Alliance (NSW)
Dr Aaron Eger champions one of Earth's most vital yet overlooked ecosystems: underwater kelp forests. He founded the Kelp Forest Alliance, uniting 340 organisations across 25 countries from science, community and policy. His leadership informs a global ambition to protect and restore 4 million hectares of kelp forests by 2040.

Eureka Prize for Leadership in Science

Distinguished Professor Ian Paulsen: Macquarie University (NSW)
Distinguished Professor Ian Paulsen has transformed synthetic biology from a niche science in Australia to a national strength. He leads the Australian Genome Foundry and the ARC Centre of Excellence in Synthetic Biology, which has spun out nine start-up companies that have raised more than $200 million in venture capital.

University of Technology Sydney Eureka Prize for Outstanding Mentor of Researchers

Professor Michael Milford: Queensland University of Technology (QLD)
Testimonials describe Professor Michael Milford's impact as life-and career-changing, with his mentees winning major grants, awards and leadership positions. From school students to senior professors across multiple disciplines, he has reached thousands around the world through both one-on-one mentoring and his highly successful video and podcast series Hacking Academia.

Science Engagement
Department of Industry, Science and Resources Eureka Prize for Innovation in Citizen Science

Passport2Recovery: Flinders University (SA)
Passport2Recovery provides critical insights into Kangaroo Island's recovery after the 2020 bushfires. It unites 12 research programs in one website and app, including initiatives on native bees, roadkill and koala movements. More than 5,000 tourists from 47 countries have engaged with the program, gaining scientific literacy for future citizen science projects.

Celestino Eureka Prize for Promoting Understanding of Science

Dr Vanessa Pirotta: Macquarie University (NSW)
From Play School to politics, Dr Vanessa Pirotta champions ocean conservation through clear, accessible science communication. A wildlife scientist specialising in whale research, she is a trusted media voice, an author and the founder of citizen science programs, helping Australians of all ages make informed decisions about the future of our marine ecosystems.

Australian Museum Eureka Prize for Science Journalism

Tyne Logan and Ashley Kyd: Australian Broadcasting Corporation (NSW)
Given a tip off about the fourth recorded global coral bleaching event, Tyne Logan and Ashley Kyd published an in-depth article the day the event was declared by the National Oceanic and Atmospheric Administration. It combines striking visuals, interactive data and personal stories to highlight the urgent crisis facing reefs worldwide. Published by ABC News online on 16 April 2024.

UNSW Eureka Prize for Societal Impact in Science

Professor Thomas Maschmeyer: The University of Sydney (NSW)
Professor Thomas Maschmeyer has developed a scalable technology that converts biomass and mixed plastics into sustainable aviation fuels and chemicals for the circular economy. By turning pollution into a valuable resource, his process reduces emissions, keeps waste out of landfill and helps industry decarbonise. International adoption is accelerating societal impact.

Department of Industry, Science and Resources Eureka Prize for STEM Inclusion

Science and Engineering Challenge, University of Newcastle (NSW)
The Science and Engineering Challenge is a national not-for-profit program that delivers 170 STEM outreach events across 88 Australian locations, reaching 25,000 students each year. More than half come from rural and remote areas, with many students experiencing economic or other disadvantage, as well as female and First Nations students.

School Science
University of Sydney Sleek Geeks Science Eureka Prize – Primary

Keira P., PLC Sydney, NSW
Keira, in Year 3, has designed and conducted an experiment to discover which thread count of cotton bedsheets is best at keeping out dust mite poo, while still allowing air through. Dusty's Mitey Poo – Hidden Below includes lots of information about dust mites and features Keira in a 'mitey' costume.

University of Sydney Sleek Geeks Science Eureka Prize – Secondary

Sophie M., St Philip's Christian College, NSW
In Swing Smart to Stand Tall, 15-year-old Sophie explains how a giant pendulum helps stabilise a skyscraper during earthquakes and typhoons. Through clear narration and straightforward diagrams, she explores how engineering can protect lives above ground from seismic forces that originate below – bridging physics, design and the mechanics behind towering structures.

2025 Australian Museum Research Institute Medal

In addition to celebrating the winners of the AM Eureka Prizes, the 2025 Australian Museum Research Institute (AMRI) Medal was awarded to Dr Chris Reid, Principal Research Scientist and Curator of Entomology at the Australian Museum.

The AMRI Medal is presented to an individual staff member, senior fellow or team from the Australian Museum Research Institute for outstanding science and communication of their research outcomes.

Dr Reid, a leading entomologist and Australia's sole expert on leaf beetles, has been recognised for more than 35 years of scientific excellence and stewardship of the Australian Museum's largest collection, Entomology. His research has transformed global understanding of beetle taxonomy, encompassing more than 3,200 species across Australia, the West Pacific, Indonesia and Europe.

He has authored numerous papers and open-access resources, contributed to multidisciplinary research projects, and served on the NSW Threatened Species Scientific Committee. Dr Reid's work has also captured public imagination through citizen science initiatives, including the popular Christmas beetle app, and media appearances that connect communities with

biodiversity science.

In addition to his extensive research, Dr Reid is known for his dedication to mentoring the next generation of scientists, his contributions to public engagement, and his service as an advisor to government, CSIRO, universities and biosecurity teams in Australia and New Zealand. His career reflects not only scientific achievement but also generosity, curiosity and commitment to conservation, making him a deserving recipient of the 2025 AMRI Medal.

Interviews available with winners
Images from the Award Ceremony available HERE (from 4 September)
Audio grabs with AM Director and CEO, Kim McKay AO HERE

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