

# 24<sup>th</sup> Annual Australian Museum Eureka Prizes

## Australian Museum Eureka Prizes finalists announced

The Australian Museum presents Australia's premier science awards program.



Congratulations to the 100 individuals who were announced as this year's finalists and are competing for 17 prizes worth \$170,000.

Plus 10 stunning images revealed...

### The 2013 Eureka Prizes finalists have discovered:

Better bulls emit less methane (Armidale)

How to use car tyres to make steel (Sydney/Newcastle)

The causes and effects of catastrophic firestorms (Sydney/Canberra)

How bats can help us treat deadly diseases (Geelong)

### They've invented:

A hypodermic camera to guide surgeons (Perth)

A bionic eye to proof-of-concept stage (Melbourne/Sydney)

Nanotechnologies to deliver drugs to their targets (Melbourne)

### They've revealed:

The sinister effects of micro-plastics in the oceans (Sydney)

How to personalise leukaemia therapy (Sydney)

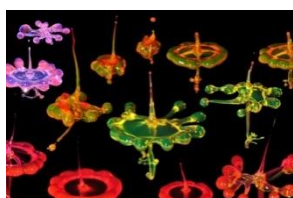
How to slow the progression of Duchenne muscular dystrophy (Melbourne)

The mysteries of locust swarming (Sydney)

Read about these and the many other achievements of the 2013 Australian Museum Eureka Prizes finalists at [australianmuseum.net.au/eureka](http://australianmuseum.net.au/eureka)

### Also revealed today: top ten stunning science photographs for 2013

Ten stunning images have been highly commended in the *New Scientist* Eureka Prize for Science Photography. All 10 images are online [here](#); they're also available for publication. Here's one of the shots:



**Stuart Hirth:** *Fluid Mechanics* shows a collection of liquid splashes, photographed over a period of many months and brought together in one image. The splashes from a single drop landing in a puddle are photographed in darkness and illuminated with a high-speed flash to show the colours and beautiful shapes.

"The Eureka Prize finalists across Australia are doing remarkable research that is saving lives, protecting the landscape, and creating opportunities for new jobs and industries," says Frank Howarth, Director of the Australian Museum.

"We're looking forward to announcing the winners in the presence of 700 science, government, culture and media leaders at Sydney Town Hall on Wednesday 4 September 2013."

Details about all 2013 Australian Museum Eureka Prizes finalists are now online at [australianmuseum.net.au/eureka](http://australianmuseum.net.au/eureka)

For media enquiries please contact the Australian Museum Eureka Prizes media team

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The Australian Museum Eureka Prizes are the country's most comprehensive national science awards, honouring excellence across the four categories of Research and Innovation, Leadership and Commercialisation, Science Communication and Journalism, and School Science.

# 2013 Australian Museum Eureka Prizes Finalists

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## RESEARCH & INNOVATION

### NSW Office of Environment and Heritage Eureka Prize for Environmental Research

**Professor Chris Johnson**, University of Tasmania; **Dr Michael Letnic**, University of New South Wales; **Dr Euan Ritchie**, Deakin University; **Dr Arian Wallach**, James Cook University; and **Adam O'Neill**, Evelyn Downs Station

Professor Chris Johnson and his team's work is conservation with bite! It has shown how the dingo helps sustain biodiversity in Australian ecosystems. It points the way to improved environmental management in which the dingo could be used to aid the recovery of degraded lands and help protect threatened species.

**Dr David Post** and **Dr Francis Chiew**, CSIRO; **Dr Bertrand Timbal** and **Dr Harry Hendon**, Bureau of Meteorology

The South Eastern Australian Climate Initiative answers key science questions about the causes and predictability of climate variability and its impacts on water availability across south-eastern Australia. The initiative will enable better management of Australia's precious water resources in the face of future climate challenges.

**Dr Jason Sharples**, University of New South Wales; and **Richard McRae**, ACT Emergency Services Agency

Dr Jason Sharples and Rick McRae's work provides major advancement in our understanding of the causes and effects of catastrophic firestorms. The most extensive research project into Australian extreme bushfire dynamics ever undertaken, it has delivered essential knowledge for improving firefighter safety and the management of fire risks to biodiversity, water quality and the Australian population.

## University of New South Wales Eureka Prize for Excellence in Interdisciplinary Scientific Research

**Bionic Vision Australia**, Bionics Institute, Centre for Eye Research Australia, NICTA, Royal Victorian Eye and Ear Hospital, University of Melbourne and University of New South Wales

The Bionic Vision Australia consortium has demonstrated ‘proof of concept’ of a world-first suprachoroidal retinal prosthesis that could help restore sight for many people with vision-impairment. The breakthrough is thanks to a strong interdisciplinary team of researchers in the fields of ophthalmology; biomedical engineering; electrical engineering; neuroscience; vision science; psychophysics; vision processing; and surgical and clinical practice.

**Scientia Professor Justin Gooding, Professor Katharina Gaus and Dr Peter Reece**, University of New South Wales

Professor Justin Gooding’s team of chemists, physicists and cell biologists has developed an optical device that can monitor the activity of captured cells. This cell chip has applications in drug discovery, toxin detection and personalised medicine. The team’s work is making the next generation of cell chips our present, not our future.

**Quantum Bio-probes**, University of Melbourne

The Quantum Bio-probes collaboration is the first to measure a single quantum probe in a living biological system. With sensitivities over a million times greater than available technologies, this breakthrough represents a fundamentally new technology for understanding nano-biological processes and has great potential for nanomedicine, neuroscience and drug discovery applications.

## Australian Infectious Diseases Research Centre Eureka Prize for Infectious Diseases Research

**CSIRO Emerging Bat Virology**, CSIRO Australian Animal Health Laboratory

Bats are carriers of several pathogens capable of inducing severe illnesses in people, yet the pathogens are comparatively innocuous in bats. While bats may well be the source of the next human pandemic, this team's preliminary research suggests that bats may present revolutionary possibilities for the treatment of human infection.

**Dr Thomas Gebhardt, Dr Scott Mueller and Dr Laura Mackay**, University of Melbourne

The surfaces of the body are continually under threat from microbes that cause debilitating disease. The Resident Memory Team has discovered a population of immune cells that reside in these barrier tissues and form an effective first line of defence. Harnessing the cells' protective function will transform the design of future vaccines.

**Professor Scott O'Neill**, Monash University; **Professor Ary Hoffmann**, University of Melbourne; **Professor Scott Ritchie**, James Cook University; **Dr Elizabeth McGraw**, Monash University; **Dr Luciano Moreira**, Oswaldo Cruz Foundation; and **Professor Brian Kay**, Queensland Institute of Medical Research

The Eliminate Dengue project is developing an innovative approach to the control of dengue by introducing Wolbachia, a naturally occurring bacterium, into mosquito populations. Wolbachia inhibits dengue virus replication within the mosquito, thereby reducing dengue transmission. When fully implemented this approach may decrease dengue incidence and benefit millions of people worldwide.

## ANSTO Eureka Prize for Innovative Use of Technology

**Winthrop Professor David Sampson, Research Associate Professor Robert McLaughlin and Winthrop Professor Christobel Saunders, University of Western Australia**

Using the humble hypodermic needle as a high-tech device was Professors David Sampson, Robert McLaughlin and Christobel Saunders' Eureka moment. They developed the world's smallest hand-held microscope-in-a-needle to display 3D images detailed enough to detect cancer. This will help guide surgeons to perform better, safer breast cancer surgery.

**UTS–RMS Bridge Maintenance Robot Project Team, University of Technology, Sydney and NSW Roads and Maritime Services**

Steel bridges are vital to 21st century infrastructure. This world-first autonomous robotic system has been developed to ensure the structural integrity of steel infrastructure, including the iconic Sydney Harbour Bridge. It will also help safeguard the health and wellbeing of maintenance crews and deliver operational efficiencies for complex civil infrastructure maintenance operations.

**Zebedee Team, CSIRO**

Zebedee is a handheld laser scanner which generates 3D maps of challenging environments in the time it takes to walk through them. Zebedee can localise itself solely using its own measurements and thus it can operate in GPS-denied environments and is well-suited to various scientific and commercial applications including forest and cave surveying, building maintenance, security inspection, mining, manufacturing, emergency services, and cultural heritage mapping.

## NSW Health Jamie Callachor Eureka Prize for Medical Research Translation

**Associate Professor Robert Cowan**, The HEARing CRC and HEARworks Pty Ltd; and **Adjunct Professor Harvey Dillon**, National Acoustic Laboratories

HEARLab® is a tool enabling a range of audiological tests aimed at improving detection and remediation of hearing loss in infants, young children and the aged. HEARLab's tests, implemented in software modules, require limited specialist skills and do not demand ongoing capital investment for updating and upgrading audiological equipment.

**Professor Michelle Haber** and **Professor Murray Norris**, Children's Cancer Institute Australia, and **Professor Glenn Marshall**, Sydney Children's Hospital

Professors Glenn Marshall, Michelle Haber and Murray Norris have gone from invention to application, using a highly sensitive molecular diagnostic to better classify leukaemia treatment response and individualise therapy – a strategy which, for the first time, has halved the relapse rate in children at highest risk.

**Professor Steve Wilton** and **Professor Sue Fletcher**, Murdoch University

Research by Professors Steve Wilton and Sue Fletcher and the Australian Neuro-muscular Research Institute has led to a breakthrough in the treatment of Duchenne muscular dystrophy, a relentlessly progressive muscle-wasting disease, with a clinical trial showing that treated boys are now making the missing protein (dystrophin) and appear to have stabilised.

## **Defence Science and Technology Organisation Eureka Prize for Outstanding Science in Safeguarding Australia**

### **DMTC Armour Applications Program, Defence Materials Technology Centre**

The DMTC Armour Applications Program has driven the development and commercialisation of high-performance armour materials and manufacturing techniques which are increasing the levels of protection and performance offered by Australian Defence Force vehicles and to operating personnel. The focus has been on developing technologies and systems which have increased blast and ballistic performance, reduced weight and increased mobility.

### **Professor Vijay Varadharajan, Macquarie University**

Cloud computing is transforming the way we do business and live our daily lives, but security issues are posing major challenges. Professor Vijay Varadharajan's work has achieved novel cyber security and trust technologies that enable large scale secure cloud applications, which are critically important for the advancement of industry and society in Australia.



## Macquarie University Eureka Prize for Outstanding Young Researcher

**Dr Angus Johnston**, Monash University and University of Melbourne

Advances in nanotechnology have the potential to greatly improve the way we treat diseases such as cancer, HIV and diabetes. Dr Angus Johnston's research focuses on developing drug carriers that deliver therapeutics specifically to the affected area, limiting harmful side effects and improving their effectiveness.

**Associate Professor Richard Payne**, University of Sydney

Associate Professor Richard Payne is pioneering the development of much-needed therapies for diseases such as tuberculosis, malaria and cancer that are responsible for enormous morbidity and mortality worldwide. He has developed and used highly innovative chemistry methods and drug-screening technologies to develop new molecules for treating these diseases.

**Dr Kerrie Wilson**, University of Queensland

Dr Kerrie Wilson addresses research questions such as where to invest limited resources to protect biodiversity or restore habitat. This requires both ecological and socio-economic knowledge and has led to the development of frameworks and decision-support tools to inform how funds should be allocated to maximise conservation outcomes.

## University of New South Wales Eureka Prize for Scientific Research

**Dr Lars Kjer-Nielsen** and **Professor James McCluskey**, University of Melbourne, and **Professor Jamie Rossjohn**, Monash University

These three medical researchers have shown how T-cells of the immune system found mainly in the gut are activated by vitamin B metabolites. The research has created opportunities for vaccine development and potential treatments for mucosal diseases, including inflammatory bowel disease and infection.

**Professor Geraint Lewis**, University of Sydney, and **Dr Anthony Conn**, Macquarie University and University of Sydney

With cutting-edge imaging from over 200 hours of telescope observations, Professor Geraint Lewis and Dr Anthony Conn looked in depth at our nearest cosmic neighbour, the Andromeda Galaxy. Their groundbreaking research revealed a completely unexpected, and mysterious, rotating plane of dwarf galaxies orbiting Andromeda. None of our ideas of the nature of dark matter and the evolution of galaxies predict such a coherent structure, and its discovery presents huge challenges for current cosmology.

**Professor Gordon Lynch**, University of Melbourne, and **Professor Mark Febbraio**, Baker IDI Heart and Diabetes Institute

Landmark work by Professors Gordon Lynch and Mark Febbraio has demonstrated that activation of the protein HSP72 with the drug BGP-15 slows the progression of Duchenne Muscular Dystrophy. BGP-15 has been tested in human clinical trials for diabetes. The capacity for an oral treatment to confer protection to dystrophic muscles represents a major clinical advance.

## Caring for our Country Landcare Eureka Prize for Sustainable Agriculture

**The Cattle Methane Team**, NSW Department of Primary Industries and University of New England

The Cattle Methane Team has shown that feed efficiency and methane production are heritable, and that the progeny of superior bulls emit less methane than those of other bulls. Australian beef producers are the first in the world to have the tools to simultaneously reduce the cost of production and their carbon footprint.

**The Future Farm Industries CRC Enrich Project Team**, CSIRO, University of Western Australia and South Australian Research and Development Institute

The Enrich project is a collaborative effort of researchers, extension staff and land managers across southern Australia. It aims to provide knowledge and development into sustainable grazing systems, with multiple benefits for farmers in low-medium rainfall areas through the incorporation of Australian perennial shrubs.

**Transformational Adaptation Research Group**, CSIRO and University of Melbourne

Transformational as well as incremental adaptation to climate change is needed if we are to increase the sustainability of agriculture. From the farm to the landscape scale, new systems and thinking are required. But such change is risky and poorly understood. This world-leading research begins the hard task of examining it.

## LEADERSHIP & COMMERCIALISATION

### Rio Tinto Eureka Prize for Commercialisation of Innovation

**OneSteel**, OneSteel and University of New South Wales

Onesteel, Australia's largest manufacturer of steel long-products, with Professor Veena Sahajwalla, has successfully commercialised and sub-licensed a method by which used car tyres, mostly destined for landfill, can replace coal in electric arc furnace steelmaking. This innovation is creating value and driving environmental best practice in steel manufacturing.

**Scanalyse/Outotec**, Scanalyse Pty Ltd/Outotec and Curtin University

Scanalyse/Outotec's laser scanning technology, originally developed at Curtin University, accurately models the internal lining of crushers and mills to monitor their condition, thus improving safety, minimising energy use, reducing downtime and drastically reducing losses from catastrophic failure. This technology is saving the mineral processing industry millions of dollars per annum.

**The WaveShaper Team**, CUDOS at University of Sydney and Finisar Australia

The WaveShaper is an ideal example of the synergy between research excellence and the commercial utilisation of innovation. Originally developed as a research device in an industry linkage grant, it is now sold to laboratories and has transformed the way optics researchers perform their experiments worldwide.

## 3M Eureka Prize for Emerging Leader in Science

**Dr Melanie Bishop**, Macquarie University

Dr Melanie Bishop's vision is to underpin coastal management with cutting-edge science. She leads a team uncovering how coastal ecosystems operate and respond to change. The team focuses on temperate coasts – one of the most productive and important ecosystems for nutrient cycling, and also one of the most impacted by humans.

**Dr Tara Murphy**, University of Sydney

Dr Tara Murphy leads the international astronomy collaboration VAST, bringing together over 80 researchers from around the world to search for astronomical transients with radio telescopes. Although she is a young scientist herself, Tara is passionate about educating the next generation of physicists and is a leading advocate of astroinformatics education.

**Associate Professor David Wilson**, University of New South Wales

Associate Professor David Wilson is an established international leader in the evaluation of global HIV/AIDS epidemics and strategic response planning. With large influence and impact on national, regional and global policies and programs, and working in partnership with UNAIDS, WHO, World Bank and governments, the effect of David's catalytic leadership is felt worldwide.

## CSIRO Eureka Prize for Leadership in Science

### **Professor Frank Caruso**, University of Melbourne

Professor Frank Caruso is a world leader in developing and applying nanotechnology-enabled materials for biomedical applications. Such materials offer significant promise for application in areas such as drug delivery and imaging, with the potential to revolutionise healthcare and medicine.

### **Professor Craig Simmons**, Flinders University and National Centre for Groundwater Research and Training

Groundwater is Earth's largest source of freshwater, yet groundwater depletion and contamination are global problems that threaten its sustainability. Professor Craig Simmons is a world leading groundwater scientist and Director of the National Centre for Groundwater Research and Training. Professor Simmons has positioned Australian groundwater science as a world leader and initiated a significant national policy focus to safeguard groundwater for the future.

### **Professor Michelle Simmons**, University of New South Wales

Professor Michelle Simmons has pioneered a radical new technology for creating atomic-scale devices. She leads a team of over 180 Australian researchers through the ARC Centre of Excellence in Quantum Computation and Communications Technology. Their groundbreaking work has opened a new frontier of research in computing and electronics globally.

## University of Technology, Sydney Eureka Prize for Outstanding Mentor of Young Researchers

### **Professor Maria Forsyth**, Deakin University

Professor Maria Forsyth is continually engaged in developing new passions and creativity in her students. Her mentoring ethos strikes a balance between providing guidance and encouraging research independence. She is committed to the success of young scientists and, under her mentorship, many have developed successful, independent research careers.

### **Professor Rick Shine AM FAA**, University of Sydney

Few biologists worldwide have been so successful at facilitating the careers of younger researchers as Professor Rick Shine. Over a long and illustrious career, Rick has attracted, nurtured and enthused a succession of high-achieving young researchers. By mentoring generations of talented researchers, he has transformed his field of study.

### **Professor Robert Williamson AO FRS FAA**, University of Melbourne

One of Australia's most distinguished scientists, Professor Robert Williamson is frank, down-to-earth and generous with his time and experience. Bob has mentored many young researchers in science, medicine and policy. Their success at national and international levels, and across multiple sectors, is testament to his ability to empower young researchers, particularly women.

## SCIENCE COMMUNICATION & JOURNALISM

### Australian Government Eureka Prize for Promoting Understanding of Australian Science Research

**Professor Philip Batterham**, University of Melbourne

Professor Philip Batterham has activated every available medium to creatively engage the Australian public with his inexhaustible passion for research on genetics, evolution, agriculture and health. From cathedrals to classrooms, he targets those who sit outside the reach of traditional engagement activity, exciting their interest in science.

**Professor Rob Brooks**, University of New South Wales

Professor Rob Brooks is a leading authority on sex and evolution, and a prolific commentator, author and speaker. With plain language and sharp humour, he inspires, educates and entertains the curious public about the importance of evolutionary theory for understanding modern life and making the world a better place.

**Professor Steve Simpson**, University of Sydney

Professor Steve Simpson is an international leader in his fields of multidisciplinary nutritional research and locust swarming who also devotes time and enthusiasm to communicating science to broad audiences through numerous channels, including television, radio, print media, online, public talks within Australia and internationally, continuing education and popular books.



## Australian Government Eureka Prize for Science Journalism

### **The Checkout**, Jigsaw Dwarf and ABC

This episode of *The Checkout: Superfoods*, reports on the reality beyond the hype about so-called superfoods and their most common source of magical powers, antioxidants. *Superfoods* shows the importance of closely checking the 'scientific studies' used to support marketers' claims of health benefits.

Broadcast on ABC TV1, 25 April 2013

### **Anja Taylor and Roslyn Lawrence**, ABC

It's well known that plastic waste in our oceans causes devastating physical harm to marine life. *Plastic Oceans* looks at new research which is uncovering the equally sinister toxic effects of microplastics, which can be ingested by animals right at the bottom of the food chain – ultimately threatening our own health.

Broadcast on *Catalyst*, ABC TV1, 6 September 2012

### **Ian Townsend**, ABC

Ian Townsend's feature, *Lead Poisoning: A Silent Epidemic*, uncovers how people were poisoned after the Queensland floods because they weren't aware of the dangers of lead in paint. Commissioned toxicology tests found high lead levels in soil and dust in one typical home. The USA has since halved its blood lead advisory level. Australia is yet to follow.

Broadcast on *Background Briefing*, ABC Radio National, 6 May 2012

## ***New Scientist Eureka Prize for Science Photography***

### **Finalists**

#### ***Growth of fungus, Paecilomyces cicadae, Elma Kearney***

This ascomycetous fungus is an endoparasite of underground cicada nymphs. Infection begins when ingested spores germinate and invade the nymph, inhibiting protein synthesis (by cordycepin) and replacing internal organs with mycelia. At maturity, the fungal fruiting bodies (stromata) grow from the killed host and produce white spores.

#### ***Chemokine receptor expression on prostate cancer cells in 3D culture, Dr Louisa Windus***

Utilising immune-cytochemical procedures, chemokine receptor CXCR4 (green fluorescence) expression can be visualised on the membrane of lymph-derived prostate cancer associated tumour cells (LNCaP) grown in a 3D matrix. The nucleus of each cell can be seen (red fluorescence). Over 180 z planes were acquired by confocal microscopy to reconstruct the image.

#### ***Fatherhood, Richard Wylie, Euakafa Island Research Centre***

The Weedy Seadragon, *Phyllopteryx taeniolatus*, is endemic to sub-temperate and temperate Australian waters and is listed by the IUCN as a Near Threatened species. This individual showcases not only the beauty and majesty of these unique creatures but also their biologically diverse methods of reproduction in the marine environment. The female seadragon transfers fertilised eggs to the male, who then incubates them until the fully formed young hatch approximately eight weeks later.

### **Highly commended**

#### ***Emergence, Dr Ian Baguley, Westmead Hospital***

*Emergence* shows the fragility of a cicada after years of underground growth as it strives to breed above ground. The complexity underpinning the cicadas' life cycle speaks to the depth of time required for evolutionary processes to enable a species to evolve to fill an available niche.

#### ***Green Turtle, Gary Cranitch, Queensland Museum Network***

Gary Cranitch has captured a green turtle in a pristine marine environment on the Great Barrier Reef. For many people, the health and wellbeing of this species is an indicator of the state of the Reef itself. Right now the Great Barrier Reef is under threat from many directions. This image symbolises all that we stand to lose.

#### ***A Tale of Two Deaths – The Poacher and the Virus, Jason Edwards, Jason Edwards Photography***

The tortured and charred remains of an African Elephant, *Loxodonta africana*, lie beside a road in the Chobe National Park in northern Botswana, illegally slaughtered for bush meat. The poachers were disturbed by national park rangers before they could dismember the carcass. Discovering that the elephant was contaminated with anthrax, the rangers then torched the remains. The photograph is testament to continued extensive poaching in the Chobe and the presence of anthrax.

*Fluid Mechanics*, **Stuart Hirth**

*Fluid Mechanics* shows a collection of liquid splashes, photographed over a period of many months and brought together in one image. The splashes from a single drop landing in a puddle are photographed in darkness and illuminated with a high-speed flash to show the colours and beautiful shapes.

*Rampant webs*, **Helen Lambert**

Rampant spider webs blanket vast stretches of farmland near South West Rocks, NSW. It is likely the webs are a dispersal mechanism that allows spiders to move out of places where they would otherwise drown. The massive quantities of silk produced create a trampoline that supports the spiders as they escape the rising floodwaters.

*The dawn of neurodevelopment – the migratory journey of neural precursors*, **Dr Michael Lovelace** and **Professor Tailoi Chan-Ling**, University of Sydney

Like a spectacular dawn, this image of migrating nervous system cells illustrates the complexity of morphologies and markers expressed on immature cells using an adherent neurosphere model. Neurospheres are spherical balls of cells that are used by scientists to model the processes involved in neurodevelopment, such as proliferation, migration and differentiation.

*Liquid Lace*, **Phred Petersen**, RMIT University

This photograph illustrates the Marangoni effect, seen here in the break-up of a drop of glycerin-water mixture impacting a thin film of ethanol. Surface tension gradients between different liquids force the flow in the direction of higher surface tension, creating holes in the normally smooth ejecta crown. This flow effect can also be seen in the 'tears' in a glass of wine.

## SCHOOL SCIENCE

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

*What is Friction?*, **Nathan Gori, Reuben Shepherd, Billy McLeod, Jack Dougall** and **Sacha Balme**, Beauty Point Public School, NSW

Reporter Doug Traction visits the National Tribology Research Centre to investigate friction. Let Professors Static, Slide, Rolling and Fluid enlighten you by exploring and demonstrating the different types of friction through simple but effective experiments.

*Splendid Steam*, **Kezia Sanders** and **Lucas Trewin**, St Joan of Arc Primary School, Vic

Step back in time with Kezia and Lucas as they explore the evolution of steam power. This clever film reveals the revolutionary nature of steam and how it continues to play an important role in the modern world.

### University of Sydney Sleek Geeks Science Eureka Prize – Secondary

*Proving Charles' Law*, **Brandon Conway-Rusk**, Devonport High School, Tas

Brush up on Charles' Law with Brandon, who demonstrates the science behind this gas law using basic equipment. Through fun and engaging experiments, he proves that science doesn't have to be hard or boring.

*The Spectacular Spider*, **Brandon Gifford**, Casino High School, NSW

In this film, the audience is taken on a search for the spectacular spider, through the safety of a camera lens. Brandon hopes that through this film people can come to recognise, respect and maybe even love the spider.

*The Stories in the Rock*, **Alex Jaeger**, Mornington Secondary College, Vic

In Alex's film, we go on a journey of discovery to Victoria's Jurassic coast, where millions of fossils can be found. Looking at the rocks in this region, we can see why the study of fossils is so important to our understanding of the history of life on Earth.