



# The Bulletin 373

The Royal Society of New South Wales

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January 2014

Wednesday 5 February 2014

## Scholarship Presentations & 1218th OGM

Union, University & Schools Club, 25 Bent St, Sydney City

6:00 for 6:30 pm

### Future Events

Wednesday 5 February 2014

#### Scholarship Presentations & 1218th OGM

Union, University & Schools Club

25 Bent St, Sydney

6:00 pm

Wednesday 19 February 2014

#### Joint meeting with the Australian

Academy of Forensic Sciences

Delivered by:

Associate Professor Robyn Sloggett

Union, University & Schools Club

25 Bent St, Sydney

6:00 pm

Thursday, 20 February 2014

Southern Highlands Branch

#### The Witness was a Fly:

Insects as Forensic Detectives

Presented by Dr James Wallman

Performing Arts Centre

Chevalier College Bowral

6:00 pm

Thursday 27 February 2014

5:30 pm for 6:00 pm

#### Meeting of the Four Societies

Future of Power Generation for NSW

Professor Mary O'Kane

NSW Chief Scientist & Engineer

Hamilton Room, Level 47, MLC centre,

Martin Place, Sydney

Wednesday 5 March 2014

#### Big Data Knowledge Discovery:

Machine Learning meets Natural Science

Delivered by:

Professor Hugh Durrant-Whyte FRS

CEO of NICTA

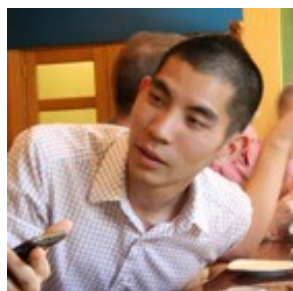
Union, University & Schools Club

25 Bent St, Sydney

6:00 pm

Join the Society for the annual presentation of our sought-after Scholarship Awards. Each recipient of an award will make a short address outlining their area of expertise and current work.

The scholarship recipients are **John Chan** from Pharmacology at the University of Sydney, **Jessica Stanley** from Chemistry at the University of Sydney and **Jiangbo (Tim) Zhao** from the Advanced Cytometry Labs at Macquarie University.



\$5 members and \$10 non-members **Dress code: Jacket and tie.**

Dinner after the meeting is \$75 per head. Please book in advance using the following form.

[http://www.rovalsoc.org.au/meetings\\_&\\_events/images\\_and\\_docs/Dinner\\_booking\\_sheet.pdf](http://www.rovalsoc.org.au/meetings_&_events/images_and_docs/Dinner_booking_sheet.pdf)

Wednesday 19 February 2014

## Joint meeting with the Australian Institute of Forensic Sciences

Delivered by: Associate Professor Robyn Sloggett

Union, University & Schools Club

25 Bent St, Sydney

6:00 pm

**RSVP essential** please see page 3 and a separate flyer for more details

### Patrons of The Royal Society of NSW

Her Excellency Ms Quentin Bryce AC CVO, Governor-General of the Commonwealth of Australia

Her Excellency Professor Marie Bashir AC CVO Governor of NSW

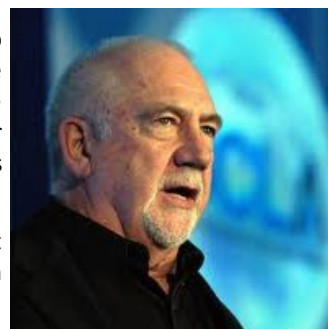
# Royal Society of NSW Awards for 2013

The Council of the Royal Society of New South Wales is pleased to announce that the following Awards for 2013 have been made:

The 2013 James Cook Medal has been awarded to Professor Brien Holden

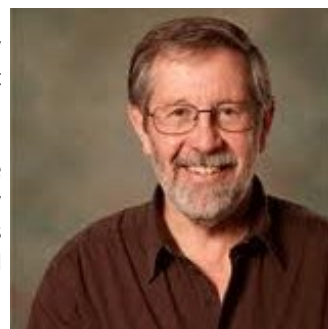
Professor Holden is a distinguished researcher with an international reputation in optometry, in particular, relating to corneal physiology and contact lenses. He pioneered new lens designs to reduce near-sightedness (myopia) in children and is considered one of the top vision scientists in the world. Professor Holden recognised that in developing countries, particularly East Asia, myopia is one of the leading causes of permanent blindness. The first generation of lenses designed by Professor Holden reduce myopia progression by up to 50%. Extending this technology to non-contact lenses is also expected to slow myopia progression.

Professor Holden's work has been recognised by the World Health Organisation as it has brought world-wide attention to preventable blindness. The Society recognises the outstanding contribution to science and humanitarian values in awarding the James Cook Medal for 2013 to Professor Holden.



The Clarke Medal for 2013 in the field of Geology has been awarded to Professor William Griffin

Professor Griffin came to Australia in 1986 to join the CSIRO, where he rapidly became Chief Research Scientist. He then helped to establish the ARC Key Centre for Geochemical Evolution and Metallogeny of Continents (GEMOC) and, subsequently, part of the new ARC Centre of Excellence for Core to Crust Fluid Systems. He has worked there ever since, first on secondment from CSIRO and, since 2007, as a CoRE Professor at Macquarie University. He pioneered (in partnership with Prof Suzanne O'Reilly) a world-leading interdisciplinary approach to mapping the inaccessible deep Earth. The results have increased our fundamental understanding of Earth's 4.6 billion year evolution, and delivered widely adopted new tools to the mineral exploration industry. His leadership at Macquarie University has delivered major breakthrough developments in geochemical analysis that have revolutionised methods for determining the timing of geological events.



The Edgeworth David Medal for 2013 has been awarded to Associate Professor David Wilson

for his exceptional contributions to the mathematical modelling of HIV/AIDS epidemics, as well as to the evaluation and strategic planning of global, regional and country-level responses to this disease.

The 2013 Walter Burfitt Prize has been awarded to Professor Michelle Simmons

Professor Simmons is a pioneer in atomic electronics and engineering. Her vision and leadership have engendered a radical new technology for fabricating electronic devices with atomic-precision accuracy – a capability that is now proving pivotal for both classical and quantum computing. By manipulating matter at the atomic scale, she led the team that created the world's first single atom transistor and the world's narrowest conducting wires in silicon – results of truly global significance.

Professor Simmons' major discoveries have positioned Australia at the forefront of modern experimental physics. Her vision, her empirical attitude, her determination and her ability to lead teams working across multiple areas of expertise have created a new, powerful, proven approach for analysing and manipulating nature at the atomic scale. Professor Simmons has become a pivotal figure globally in both the fundamental and industrial development of atomic-scale technologies.



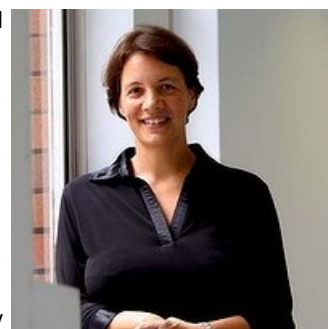
RSNSW Scholarships

Jiangbo Zhao, Macquarie University

John Chan, University of Sydney

Jessica Stanley, University of Sydney

Xavier Zambrana-Puyalto, Macquarie University (also the recipient of the Jak Kelly Award)



The Society is grateful to the Advisory Panel of the Deans of Science of NSW universities, convened by the NSW Chief Scientist & Engineer Professor Mary O'Kane, for their considered advice.

Images top to bottom: Professor Brien Holden , Professor William Griffin, Associate Professor David Wilson, Professor Michelle Simmons

Wednesday 19 February 2014

**Plenary Session of the Australian Academy of Forensic Sciences  
A joint meeting with the Royal Society of New South Wales**

Union, University & Schools Club, 25 Bent St, Sydney City

6:00 pm

**Searching for clues: Unmasking Art Fraud and Fraudsters**

Presented by Associate Professor Robyn Sloggett

There is a critical need to have properly established methods for assessing art fraud with at least 10% of art work in the Australian market deemed to be “problematic”, and with forgers demonstrably active. The difference between a work being valued at millions of dollars or at the price of the materials used in its production depends on the ways in which evidence is amassed and assessed in the development of an art fraud or art attribution case.

Significant factors in establishing a chain of evidence that will indicate whether a work is legitimate or not include what is selected as a reference data set, which processes and tools are used for examination, and the methodology and terminology used to collate the report.

Associate Professor Robyn Sloggett is Director of the Centre for Cultural Materials Conservation, which delivers industry-focused teaching, research and Consultancy programs related to cultural preservation and is based at the University of Melbourne.

Her current research incorporates art authentication, the scientific and cultural analysis of painting and medium used in Australia, art market development and the impact of art fraud, cultural conservation in Southeast Asia, and the preservation of cultural material and archives held in remote and regional communities.

In 2003 A/Professor Sloggett was awarded the AICCM’s Conservator



Associate Professor Robyn Sloggett

of the Year Award for Services to the Conservation Profession.

The Plenary will be followed by dinner at the club. Members are reminded respectfully, that attendance at the Academy’s meetings and dinners held at the Club, requires for men a jacket and tie and for women, an equivalent standard of dress.

RSVP by Wednesday 12 February to the AAFS using separate form.

The Australian Academy of Forensic Sciences is a multidisciplinary and scholarly body whose foundation meeting took place on 20 April 1967.



Australian Academy of Forensic Sciences

**Thursday 27 February 2014  
Meeting of the Four Societies  
Future of Power Generation for NSW**

Professor Mary O’Kane

NSW is a significant player in a country rich in energy resources.

This talk poses and examines a set of questions about power generation and distribution in NSW, considering a wide range of possibilities for the State’s energy future, as well as delving into current practices and limitations.



Professor Mary O’Kane is the NSW Chief Scientist and Engineer and also a company director and Executive Chairman of Mary O’Kane & Associates Pty Ltd, a Sydney-based consulting practice. She is also Chair of the Development Gateway and Development Gateway International, Chair of the CRC for Spatial Information, and a director of NICTA, Capital Markets CRC, PSMA Ltd and Business Events Sydney.

See separate flyer for details.



# From the President



First, I would like to wish all our members a prosperous 2014. The year promises to be an exciting one for the Society – a number of initiatives we've been working on over the last several months will come to fruition in the first half of the year. In particular, the changes to the Rules and By-Laws of the society were passed at the special meeting held in December. This meeting was very well attended with a large proportion of the society's membership voting unanimously to change the Rules. The Council believes that these changes have the potential to have a major impact on growing the Society's membership base.

The second 2013 edition of the Journal and Proceedings has been published to the website and will be available in printed form within the next few weeks. The new

editor, Professor Michael Burton, the Union University and Schools Club. has done a great job with his first edition.

Our first meeting for the year will be the 2013 Royal Society of NSW Scholarship presentations. There will be presentations of 20 minutes each from each of the scholarship winners. I would encourage you to attend – the Scholarship winners have done some outstanding work and their presentations are always very interesting.

The council is just putting the finishing touches to the 2014 programme of events. In particular I would draw your attention to two special events coming up in the next couple of months. The first is the first joint meeting of the Society with the Australian Academy of Forensic Sciences to be held on Wednesday 19 February. The speaker will be Associate Professor Robyn Sloggett, the Director of the Centre for Cultural Materials Conservation at the University of Melbourne, who will discuss techniques for the authentication of artworks and the detection of art fraud. The meeting will be held over dinner at

The second event is the annual Four Societies lecture that we hold in conjunction with the Australian Nuclear Association, the Australian Nuclear Energy Panel, Engineers Australia and the Australian Institute of Energy. This year's lecture will be delivered by Professor Mary O'Kane, NSW Chief Scientist and Engineer who will discuss various energy options for the State of New South Wales. (Note that this meeting will be held at the MLC Centre – see the website for details.)

We expect that our full speakers programme for 2014 for both Sydney and the Southern Highlands branch will be available on the website within the next couple of week, so members can plan their diaries for the year.

If there are any issues you would like to raise with me, I am easily contacted by e-mail at the address [president@royalsoc.org.au](mailto:president@royalsoc.org.au) and I would like to hear from you.

**D**onald Hector

## Contact your office bearers

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| <b>Em. Professor Roy MacLeod</b>       | <b>02 9036 5282</b> |   |                     |

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