



The Royal Society of New South Wales Bulletin and Proceedings 322

ABN 76 470 896 415

ISSN 1039-1843

February 2009

Future Events 2009

Lectures in Sydney are held in Lecture Room 1, Darlington Centre, University of Sydney at 7 pm on the first Wednesday of the month with drinks available from 6 pm.

Wednesday 25 February 2009

Meeting of the four societies

Dr Selena Ng

Areva NC, Australia

An industry update on global nuclear power and the opportunities for Australia

Engineers Australia Lecture Theatre,
8 Thomas St, Chatswood 6pm

Friday 13 March 2009

Annual Dinner

Darlington Centre, University of Sydney
at 7 pm (see p. 4)

Wednesday 1 April 2009

Annual General Meeting and Presidential Address

Saturday 4 April 2009

National Trust Heritage Festival

Royal Society of NSW in conjunction
with the City of Sydney presents:

'Stars in the City' Dr Peter Tyler

Customs House (see next Bulletin)

Southern Highlands Branch

Meetings are held on the third Thursday
of each month in the Drama Theatre at
Frensham School, Mittagong (enter off
Waverley Parade), at 6.30pm.

Acting editor, this issue, Bruce Welch

Reminder

Donations are Tax Deductible

*We remind members that donations over \$2 to
the Library Fund and the Scholarship Fund are tax
deductible.*

Meeting of the Four Societies Australian Nuclear Association, Nuclear Panel of Engineers Australia, Australian Institute of Energy and The Royal Society of NSW

Dr Selena Ng

**An industry update on global nuclear power and the
opportunities for Australia – event details at left**

This talk will aim to set the record straight from an industry perspective, covering some of the long-argued topics such as proliferation, safety, and waste. It will also look at projected industrial developments over the coming decades, and the opportunities for Australia to get involved.

Dr Selena Ng is currently responsible for developing AREVA's nuclear activities in Australia.



Supernova expert to visit Australia

One of the world's leading supernova researchers, Bob Kirshner, will visit Australia in November 2009 on a speaking tour funded by a Selby Fellowship from the Australian Academy of Science.

Professor Kirshner, Clowes Professor of Science at Harvard University, is one of the world's foremost researchers on supernovae — exploding stars. He was the original driving force behind the High-z Supernova Search Team which, along with a second team, revolutionised cosmology in the late 1990s by discovering that the expansion of the Universe is accelerating — work for which the two teams shared the 2007 Gruber Prize for cosmology. Determining the nature of the 'Dark Energy' that drives this acceleration is now a central problem in physics and cosmology.

The International Year of Astronomy, 2009, will be a year-long, worldwide, public celebration of astronomy, held to mark the 400th anniversary of Galileo turning a telescope to the sky. The Year has been endorsed by UNESCO.

IYA2009 is being coordinated by the International Astronomical Union, the international body that represents the world's professional astronomers. However, almost all activities will be organised at the level of a country or region. Australia is one of the 63 countries signed up to participate.

Visit <http://www.astronomy2009.org.au> for more information.

Patrons

Her Excellency Ms Quentin Bryce AC

Governor-General of the Commonwealth of Australia

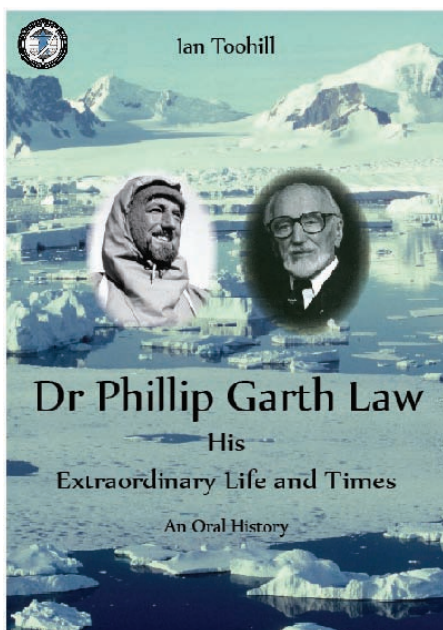
Her Excellency Professor Marie Bashir AC CVO Governor of NSW

Dr. Phillip Garth Law: His Extraordinary Life and Times

An oral history of the life of this Antarctic explorer, scientist, educationalist, administrator, author, public speaker, photographer, lecturer and musician will be launched in Melbourne on Friday 27 February 2009. The first publication of the newly established Royal Societies of Australia, this book records the enormous contributions to Australian science and education made by this Royal Society of NSW James Cook Medallist.

Dr Law is responsible for Australia's permanent presence in the Antarctic. Over a period of nineteen years (1947-1966) he developed The Australian National Antarctic Research Expeditions (ANARE) scientific programme, established Australia's three permanent Antarctic continental stations and directed the exploration of some 4,800 kilometres of Antarctic coast and 1,300,000 square kilometres of then unknown Antarctic territory, as well as devising the administrative machinery to raise Australia's Antarctic Division which he commanded.

The book comprises 300 A5 pages with 24 pages of coloured plates. More information and how to obtain a copy of the book can be found in the flyer and order form accompanying this Bulletin.



From the President

The New Year has got off to a flying start with renewed interest in the work we are doing on reclaiming Science House for Science



returning to the fore. Science House Sydney Limited is now a reality with the completion of the signing of the documents for the establishment of the company earlier this month.

My meeting with the new Vice-Chancellor of the University of Sydney at the end of January was very positive, with Dr Spence taking a keen interest in our Science House work. He has offered his full support to the project. He has also pledged his support for our continued occupation of our Darlington Rd premises on the University campus for the foreseeable future.

Our liaison work with the Faculty of Science at the University has also borne fruit with information about our forthcoming events being included in Science Faculty marketing and promotion information. We are also helping to publicise their events.

Robyn Stutchbury and I were fortunate to be invited on your behalf to celebrate Charles Darwin's dual anniversaries this year at a 'Dining with Darwin' event organised by the Botanic Gardens Trust and the Australian Museum. Further relevant contacts have been made there in relation to Science House and science outreach. Another Darwin event was the launch by Professor Michael Ruse of the new exhibition at the Macleay Museum entitled 'Accidental Encounters' which explores science, life and culture in Australasia in the years leading up to the publication of *On the Origin of Species* in 1859.

Finally I would like to report that work on the biography of Archibald Liversidge, FRS has reached the final stages with the manuscript now having been fully designed and laid out ready for printing. We expect to be able to launch the book in the very near future. Further information will appear in later Bulletins.

John Hardie

New Director for Australian Science Innovations

Australian Science Innovations, organisers of the Australian Science Olympiads and the Rio Tinto Big Science competition in schools has announced the appointment of a new Executive Director, Mr Toss Gascoigne.

Toss has played a prominent role in science advocacy at FASTS (the Federation of Australian Scientific and Technological Societies), he has worked in education, and he has wide experience in science communication.



ASI plays a vital role in spreading the story of science through the Rio Tinto Big Science competition and the international Olympiad program. Australia needs a steady supply of young people interested in careers in science, technology, engineering, and medicine, and the role of ASI as an independent, non-profit organisation is to excite them to the rich possibilities and immense personal satisfaction science can offer.

ASI sponsors include the Commonwealth Government Department of Innovation, Industry, Science and Research; Rio Tinto; Monash University; the Australian National

University and Merck, Sharp and Dohme.

Liversidge Lecture 2008

On Wednesday 3 December 2008, Professor Cameron Kepert from the School of Chemistry at the University of Sydney delivered the Liversidge Lecture of 2008 to a keen and attentive audience. Professor Kepert's lecture was entitled: Molecular Materials: from clean energy storage to shrinking crystals.



AUSTRALIAN ACADEMY OF SCIENCE ANNOUNCES AWARDS FOR SCIENTIFIC EXCELLENCE



Career awards

2009 David Craig Medal for research in chemistry

Emeritus Professor Leonard Lindoy FAA
School of Chemistry, University of Sydney

2009 Hannan Medal for research in pure mathematics

Professor (Edward) Norman Dancer FAA
School of Mathematics and Statistics, University of Sydney

2009 Jaeger Medal for research in earth sciences

Professor Malcolm McCulloch FAA
Research School of Earth Sciences, Australian National University

2009 Thomas Ranken Lyle Medal for research in mathematics or physics

Professor Victor Flambaum FAA
School of Physics, University of New South Wales

2010 Macfarlane Burnet Medal and Lecture for research in the biological sciences

Professor David Vaux FAA
Department of Biochemistry, La Trobe University

Early-career awards (for researchers under 40 years of age)

2009 Fenner Medal for research in biology (excluding the biomedical sciences)

Associate Professor Sean Connolly
ARC Centre of Excellence for Coral Reef Studies, and School of Marine and Tropical Biology, James Cook University

2009 Ruth Stephens Gani Medal for research in human genetics

Dr Marnie Blewitt
Division of Molecular Medicine, Walter and Eliza Hall Institute of Medical Research

2009 Gottschalk Medal for research in the medical sciences

Dr Carola Vinuesa
John Curtin School of Medical Research, Australian National University

Inaugural Anton Hales Medal for research in earth sciences

Associate Professor Jeffrey Walker
Department of Civil and Environmental Engineering, University of Melbourne

2009 Dorothy Hill Award for female researchers in the earth sciences including reef science, ocean drilling, marine science and taxonomy in marine systems

Dr Daniela Rubatto
Research School of Earth Sciences, Australian National University

2009 Le Fèvre Memorial Prize for research in basic chemistry

Dr Stephen Blanksby
School of Chemistry, University of Wollongong

2009 Moran Medal for research in statistics

Dr Melanie Bahlo
Bioinformatics Division, Walter and Eliza Hall Institute for Medical Research

2009 Pawsey Medal for research in physics

Dr Stuart Wyithe
School of Physics, University of Melbourne

The Society offers its congratulations to all, but particularly to Dr Stuart Wyithe, the winner of our 2007 Edgeworth David Medal.

APPLICATIONS FOR THE OXFORD NUFFIELD MEDICAL FELLOWSHIP 2009-10 NOW OPEN

The Scheme for Oxford Nuffield Medical Fellowships in either a clinical medicine or medical science department of the University of Oxford is offered for 2009-

10. The fellowship carries an allowance on the scale £40,143 - £43,755, subject to United Kingdom tax. A summary of the financial and other arrangements of the fellowship are available from www.science.org.au/awards/nuffield.htm. The closing date for applications is 18 May.

CALL FOR PAPERS FOR THE SIR MARK OLIPHANT CONFERENCE NANOPHOTONICS DOWN UNDER 2009

The organisers of the Sir Mark Oliphant Conference Nanophotonics down under 2009 are calling for papers. The deadline for submission of abstracts is 28 February, and for early-bird registration is 1 April.

The Australian Research Council Nanotechnology Network will provide discounted registration rates for Australian early-career researchers and PhD students. Please refer to the conference website for details. Other information relating to registration, accommodation and travel support are available from www.smonp2009.com

NOMINATIONS OPEN FOR 2009 PRIME MINISTER'S PRIZES FOR SCIENCE

The 2009 prime minister's prizes for science, celebrating the achievements of Australia's world-leading scientists and science educators is now open for nominations.

Nomination gives research organisations, universities, education departments and schools a unique opportunity to seek public acknowledgement of the outstanding efforts of their colleagues.

Five prizes will be awarded:

- * Prime Minister's Prize for Science (\$300,000)
- * Science Minister's Prize for Life Scientist of the Year (\$50,000)
- * Malcolm McIntosh Prize for Physical Scientist of the Year (\$50,000)
- * Prime Minister's Prize for Excellence in Science Teaching in Primary Schools (\$50,000)
- * Prime Minister's Prize for Excellence in Science Teaching in Secondary Schools (\$50,000)

Nominations can be made online at www.innovation.gov.au/scienceprizes.

For enquiries and assistance during the nomination process contact (02) 6276 1264 email pmprize@innovation.gov.au. Nominations close on Friday, 8 May.

Annual Dinner Friday 13 March 2009



Darlington Centre, Sydney University 7pm

The 2009 Annual Dinner of the Society will be held on Friday 13 March 2009 at 7 pm at the Darlington Centre's Forum Restaurant. Her Excellency Ms Quentin Bryce AC, Governor-General of Australia and our Chief Patron has been invited as the guest of honour, and to present our Awards for 2008.

All members, friends, colleagues and family are cordially invited to attend. We have managed to keep costs at a similar level to last year. Please use the separate booking form included with this Bulletin to make your bookings.

Reverend William Scott M A

First Government Astronomer and First Director of Sydney Observatory

This book describes the professional and personal life of Reverend William Scott, first Director and founder of Sydney Observatory.

On the recommendation of the Astronomer Royal, on 16 April 1856 at the age of 31 years, Reverend William Scott was appointed by the NSW Government to the prestigious position of Government Astronomer.

In 1867-74 he was honorary secretary of the Royal Society of New South Wales and treasurer in 1874-78. In 1874 he read a paper to the Society on 'The transit of Venus as Observed at Eden' which was published in its Proceedings.

The full flyer and order form accompanies this Bulletin.



Sydney Observatory, about 1860,
photographer unknown

Amendments to Rules and By-laws of the Society

At the December 2008 Ordinary General Meeting of the Society, members agreed to the changes proposed by Council. These allowed a president to be elected for up to four consecutive years, and also allowed for the creation of Fellows of the Society.

The revised sections of the Rules and By-laws follow:

10 d. Any financial member of the Society shall be eligible for nomination for any position on the Council of the Society except that no member shall be eligible for election as

i. President if the member has served as President for the whole of the preceding four years;

A Society Fellow may be appointed at the discretion of the Council following the procedures listed below.

17.2 Nomination procedure for Fellows

a. Nominations should be made in confidence to the President by any two members of the Society and seconded by a member of Council

b. Nominations should give the nominee's curriculum vitae, relevant biography, a description of scientific or technological achievements and/or contributions to science or technology and/or scientific communication in NSW or related to NSW and state the award category for which the nominee is recommended.

c. Appointments will be ratified by a Fellowship Nomination Committee consisting of the President, a Vice President, the Honorary Secretary and two other persons appointed by Council who may or may not be councillors but should have knowledge of the field in which the appointment is to be made.

Contact your office bearers

John Hardie President	02 9363 9360	Prof Jak Kelly Vice President	02 9419 6877
Clive Wilmot Vice President	02 4886 4199	Marian Haire Hon Treasurer	02 8467 3575
Bruce Welch Hon. Secretary	02 9569 9928	Prof Peter Williams Hon Sec (Editorial)	02 9685 9914
Christine van der Leeuw Hon Librarian	02 9680 3598	Alan Buttenshaw	02 9569 0236
Jim Franklin	02 9514 2195	Prof Heinrich Hora	02 9547 1424
Dr Michael Lake	02 9514 2238	Jill Rowling	02 9697 4484
A/Prof Bill Sewell	02 9295 8434	Robyn Stutchbury	02 9427 6747

The Bulletin and Proceedings is issued monthly by the Royal Society of New South Wales

Office address: 121 Darlington Road, UNIVERSITY OF SYDNEY, NSW 2006, AUSTRALIA

Postal address: Building H47, UNIVERSITY OF SYDNEY, NSW 2006, AUSTRALIA

Val Gregory, Office Manager • Phone: 61 2 9036 5282; Fax: 61 2 9036 5309;

Email: royalsoc@usyd.edu.au • Web page: <http://nsw.royalsoc.org.au>