

The Fellowship

The Academy Fellowship comprises 420 of Australia's leading research scientists, elected for their personal contributions to science. Fellows occupy senior positions in universities, the CSIRO and industry.

The Fellowship, 31 March 2008:

Ada, GL
Adams, JM
Allen, DG
Anderson, JM
Anderson, JR
Anderson, BDO
Andrews, TJ
Angus, JA
Angyal, SJ
Antonia, RA
Appleby, CA
Archer, M
Armstrong, BK
Bacic, A
Baddeley, AJ
Badger, MR
Banwell, MG
Barber, MN
Bartlett, PF
Bartnik, RA
Basten, A
Batterham, RJ
Baxter, RC
Baxter, RJ
Beckwith, ALJ
Bedding, RA
Bennett, MA
Bennett, MR
Bergersen, FJ
Berkovic, SF
Bilger, RW
Birch, LC
Bishop, PO
Blanden, RV
Blevin, WR
Boardman, NK
Boger, DV
Bond, AM
Boswell, RW
Boyden, SV

Boyle, BJ
Brennan, MH
Brent, RP
Brown, G
Brown, RD
Bruce, MI
Buchdahl, HA
Budd, WF
Burdon, JJ
Burger, HG
Burgess, AW
Burgman, MA
Burke, DJ
Burnstock, G
Campbell, JH
Campbell, KSW
Canty, AJ
Cavill, GWK
Celermajer, DS
Chalmers, JP
Chappell, BW
Chappell, JMA
Clarebrough, LM
Clark, GM
Clark, RG
Clarke, AE
Cockburn, A
Cole, ARH
Cole, KD
Colless, MM
Colman, PM
Coltheart, M
Compston, W
Cook, DI
Cooper, DA
Cory, S
Costa, M
Costin, AB
Cowan, IR
Cowling, MG

Cowman, AF
Cox, GB
Craig, DP
Crompton, RW
Crossley, MJ
Crozier, RH
Curtis, DR
Dance, IG
Dancer, EN
Dawes, IW
Day, MFC
Day, RH
de Kretser, DM
Delbourgo, R
Dennis, ES
Denton, DA
Dewar, RL
Doddrell, DM
Doherty, PC
Dopita, MA
Dracoulis, GD
Drummond, PD
Dunn, AR
Easton, CJ
Eastwood, MG
Egan, JB
Ekers, RD
Elliott, WH
Ellis, GRA
Ellis, JG
Esler, MD
Evans, DJ
Evans, LT
Evans, RJ
Ewens, WJ
Faraone, L
Farquhar, GD
Fenner, FJ
Field, LD
Figgis, BN

Finnigan, JJ
Flambaum, VV
Fletcher, NH
Forrester, PJ
Fraser, RDB
Frater, RH
Frazer, IH
Frederiksen, JS
Freeman, HC
Freeman, KC
Furness, JB
Gandevia, SC
Gani, JM
Gascoigne, SCB
Gibbs, AJ
Gibson, FWE
Gilbert, RG
Gleadow, AJW
Goodnow, CC
Goodwin, GC
Graham, RM
Graves, JAM
Green, DH
Green, MA
Grieser, F
Griffiths, RW
Grimshaw, RHJ
Groves, DI
Gu, M
Gunning, BES
Guttmann, AJ
Haddad, PR
Hall, PG
Hall, RM
Hamann, SD
Hannaforde, P
Hardham, AR
Harrison, TM
Hartley, RI
Harvey, RP

Hatch, MD
Head, AK
Healy, TW
Heath, WR
Higgins, TJ
Hill, DJ
Hilton, DJ
Hinde, DJ
Hirst, GDS
Hobbs, BE
Hobbs, RJ
Hoffmann, AA
Holliday, R
Holloway, BW
Holman, ME
Holmes, AB
Holt, PG
Hopwood, JJ
Horridge, GA
Hughes, TP
Hume, ID
Hunter, RJ
Hurst, CA
Hush, NS
Hutchinson, JE
Hyde, BG
Hyde, ST
Hynes, MJ
Imberger, J
Israelachvili, JN
Jacobsen, JV
Jagadish, C
James, DE
Jameson, GJ
Jeffrey, SW
Johnstone, BM
Jones, The Hon. BO
Joshi, N
Kay, BH
Kemp, BE
Kemp, DJ
Kennett, BLN
Kerr, A
Kerr, JFR
Kivshar, Y
Klein, AG
Koopman, PA
Korner, PI
Kotagiri, R
Kuchel, PW
Ladiges, PY
Lamb, TD
Lambeck, K
Lance, JW
Larkins, FP
Law, PG
Lay, PA
Le Couteur, KJ

Lehrer, GI
Letham, DS
Levick, WR
Lindenmayer, DB
Lindoy, LF
Linnane, AW
Lovering, JF
Lumbers, ER
Lyons, LE
McCloskey, DI
McComb, AJ
McCormick, PG
McCracken, KG
McCulloch, MT
McDougall, I
McDougall, TJ
McElhinny, MW
McEwan, AD
McFadden, GI
McFadden, PL
MacFarlane, DR
McIntosh, AGR
McIntosh, RA
McKay, BD
MacKay, IR
McKellar, BHJ
McKenzie, JA
McLachlan, EM
McLeod, JG
Mai, Y
Main, AR
Manchester, RN
Mander, LN
Marcelja, S
Marshall, BJ
Martin, N
Martin, RL
Martin, TJ
Masters, CL
Mathieson, AM
Mattick, JS
Mayo, O
Melrose, DB
Mendelsohn, FAO
Metcalf, D
Milburn, GJ
Miller, JFAP
Millis, NF
Mills, BY
Mitchell, GF
Moodie, AF
Moore, JB
Moran, W
Morrison, JD
Morton, DC
Mould, JR
Munns, RE
Myers, RH

Napper, DH
Neeman, A
Newton, JO
Nichol, LW
Nicola, NA
Ninham, BW
Norrish, K
Nossal, Sir GJV
Nugent, KA
Ogilvie, Dame B
O'Neill, H
O'Reilly, SY
Orlowska, ME
Osborne, MR
Osmond, CB
Paddon-Row, M
Paltridge, GW
Passioura, J
Pate, JS
Paterson, MS
Peacock, WJ
Pearman, GI
Pegg, DT
Pettigrew, JD
Phan-Thien, N
Pickett-Heaps, JD
Pittard, AJ
Porter, R
Possingham, HP
Poulos, HG
Powell, R
Praeger, CE
Quirk, JP
Radom, L
Ralph, JT
Ralston, J
Randolph, MF
Redman, SJ
Reeves, PR
Reid, AF
Renfree, MB
Rintoul, SR
Ritchie, IM
Rizzardo, E
Robinson, DW
Robson, R
Rogers, C
Rogers, GE
Rogers, LJ
Rubinstein, JH
Runnegar, BN
Sambrook, JF
Sara, VR
Sargeson, AM
Schmidt, BP
Seneta, E
Sharman, GB
Shine, J

Shine, R
Short, RV
Shortman, KD
Shparlinski, I
Simmons, MY
Simon, L
Simpson, ER
Simpson, SJ
Slatyer, RO
Sloan, IH
Sloan, SW
Smith, FA
Smith, SE
Smyth, DR
Snyder, AW
Solomon, DH
Speed, TP
Sprent, J
Sprent, JFA
Sridhar, T
Srinivasan, MV
Stalker, RJ
Stanley, FJ
Stanton, RL
Stephenson, DG
Sternhell, S
Stokes, RH
Stone, J
Strasser, A
Street, R
Street, RH
Sullivan, CE
Summons, RE
Sutherland, GR
Sutherland, RL
Swan, JM
Tam, PPL
Tanner, RI
Taylor, SR
Thomas, AW
Thompson, AM
Thompson, CJ
Tregear, G

The Fellowship is listed at:

www.science.org.au/academy/fellows/fellow.htm

More information on each of the new Fellows is available at: www.science.org.au/academy/fellows/2008.htm

Trudinger, NS
Truswell, EM
Tuck, EO
Tucker, RS
Turner, JS
Tyerman, SD
Tyndale-Biscoe, CH
Underwood, AJ
Vaux, DL
Veevers, JJ
Vincent, RA

von Caemmerer, S
von Itzstein, M
Wake, RG
Walker, NA
Wall, GE
Wallace, GG
Wallace, HR
Walter, MR
Wand, MP
Warnaar, SO
Warren, JR

Watts, RO
Weigold, E
Weiss, DE
Welsh, AH
Wentrup, C
White, GK
White, JW
Whitten, MJ
Whitten, WK
Wild, JP
Wild, SB

Williams, JF
Williams, JS
Williams, R
Williamson, R
Williamson, RE
Wintour-Coghlan, EM
Wiseman, HM
Wiskich, JT
Womersley, HBS
Woodall, R
Zillman, JW

Corresponding Members

Andersson, B
Atiyah, Sir M
Attenborough, Sir D
Bernard, J
Bjorkman, OE
Blackburn, E
Boyer, JS

Brooks, RA
Buckingham, D
Connell, JH
Cornforth, Sir JW
Feldmann, M
Gajdusek, DC
Harris, Sir H

Jones, VFR
Krebs, CJ
Lu, Y
May, Lord R
Öquist, FG
Oxburgh, Lord R
Powell, MJD

Raven, PH
Salpeter, EE
Sanger, F
Slater, EC
Tao, T
Zinkernagel, RM

New Fellows

We congratulate the following scientists who were elected to the Fellowship on 19 March 2008:

Professor Antony Bacic

Personal Chair, School of Botany, University of Melbourne.

Professor Murray Ronald Badger

Professor, Research School of Biological Sciences, Australian National University.

Professor Roderick William Boswell

Professor, Research School of Physical Sciences and Engineering, Australian National University.

Professor William Ross Heath

Deputy Head, Immunology Division, Walter and Eliza Hall Institute of Medical Research.

Professor Nalini Joshi

Chair of Applied Mathematics, School of Mathematics and Statistics, University of Sydney.

Professor Peter Anthony Koopman

Professorial Research Fellow, Institute for Molecular Bioscience, University of Queensland.

Professor David Bruce Lindenmayer

Research Professor, Fenner School of Environment and Society, Australian National University.

Professor Nicholas Martin

Senior Principal Research Scientist, Queensland Institute of Medical Research.



Dame Bridget Ogilvie

Professor John Stanley Mattick

Professor of Molecular Biology, Institute for Molecular Bioscience, University of Queensland.

Dame Bridget Ogilvie

University College London, UK.

Professor Hugh O'Neill

Associate Director, Research School of Earth Sciences, Australian National University.

Professor Brian Paul Schmidt
ARC Federation Fellow, Research School of Astronomy
and Astrophysics, Mount Stromlo Observatory,
Australian National University.

Professor Patrick Ping Leung Tam
Head, Embryology Unit, Children's Medical Research
Institute, Sydney.

Professor Geoffrey Tregear
Deputy Director, Howard Florey Institute, University
of Melbourne.

Professor Matthew Paul Wand
Research Professor in Statistics, School of Mathematics
and Applied Statistics, University of Wollongong.

Professor Sven Ole Warnaar
Senior Research Fellow, Department of Mathematics
and Statistics, University of Melbourne.

Professor Howard Mark Wiseman
Director, Centre for Quantum Dynamics, Griffith
University.

New Corresponding Members

Sir David Attenborough
Richmond, Surrey, UK.

Professor David Buckingham
Emeritus Professor of Chemistry, Department
of Chemistry, University of Cambridge.



Professor David Buckingham

Honours awarded to Fellows during the year 2007–08

Professor Michael Archer
Member of the Order of Australia (AM)

Professor Sam Berkovic
Elected as a Fellow of the Royal Society of London
NHMRC Australian Fellowship

Professor Elizabeth Blackburn
2008 Laureate of the 10th annual L'Oréal-Unesco Awards
for Women in Science

Professor David Boger
Elected as a Fellow of the Royal Society of London

Professor Gavin Brown
Elected as a Corresponding Fellow of the Royal Society
of Edinburgh

Dr Leo Clarebrough
Medal of the Order of Australia (OAM)

Professor Robert Clark
Australian Research Council Federation Fellowship

Professor Max Coltheart
2007 Australian Museum Eureka Prize for Leadership
in Science

Professor Alan Cowman
NHMRC Australian Fellowship

Professor Ian Frazer
2007 Australian Academy of Technological Sciences and
Engineering Clunies Ross Award

Professor Bob Graham
2007 Heart Foundation Research Medal for Lifetime
Contribution to Cardiovascular Research

Professor Martin Green
2007 SolarWorld Einstein Award

Professor Min Gu
Elected as a Fellow of the Australian Academy of
Technological Sciences and Engineering

Professor Anthony Guttman
Elected as a Fellow of the Australian Academy of
Technological Sciences and Engineering

Professor Tom Healy
Nature's Inaugural Lifetime Mentoring Award
Elected as a Foreign Associate of the National Academy
of Engineering, USA
2008 Antoine M Gaudin Award by the Society for
Mining, Metallurgy and Exploration, USA

Professor Doug Hilton
NHMRC Australian Fellowship

Dr Bruce Hobbs

Elected as a Fellow of the Australian Academy of Technological Sciences and Engineering

Professor Terry Hughes

2007 Australian Museum Eureka Prizes in Environmental Research
International Society for Reef Studies Darwin Medal

Professor Noel Hush

Welch Prize in Chemistry (Welch Foundation of Texas) 2007

Professor Chennupati Jagadish

Elected to the Institution of Engineering and Technology

Professor David Kemp

Medal of the Order of Australia (OAM)

Professor Brian Kennett

2008 Gold Medal for Geophysics by The Royal Astronomical Society in London

Professor Colin Masters

Elected as a Fellow of the Australian Academy of Technological Sciences and Engineering
2007 Victoria Prize

Professor Don Metcalf

American Association for Cancer Research Lifetime Achievement Award

Professor Douglas MacFarlane

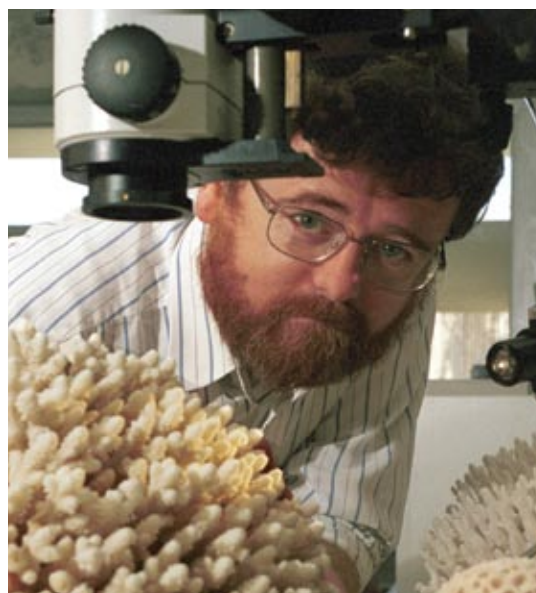
Australian Research Council Federation Fellowship

Professor Gerard Milburn

Australian Research Council Federation Fellowship

Professor Nancy Millis

2007 Australian Academy of Technological Sciences and Engineering Clunies Ross Lifetime Achievement Award



Professor Terry Hughes

Professor Harry Poulos

American Society of Civil Engineers 2007 Thomas A Middlebrooks Award

Professor Cheryl Praeger AM

Australian Research Council Federation Fellowship

Professor John Ralston

South Australian Scientist of the Year 2007

Professor Terry Speed

NHMRC Achievement Award

Dr Andreas Strasser

NHMRC Australian Fellowship

Professor Terence Tao

Elected as a Fellow of the Royal Society of London

Professor David Vaux

NHMRC Australian Fellowship

Deaths since 1 April 2007

We regret to record the following deaths:

Professor Chris (WN) Christiansen, 26 April 2007

Professor Pierre-Gilles de Gennes, Nobel Laureate, 23 May 2007

Professor Rod Rickards, FRACI, 17 December 2007

Professor Richard E Meyer, 6 January 2008

Professor Chris C Heyde, AM, FASSA, 6 March 2008

Regional groups

The following reports for the period 1 April 2007 to 31 March 2008 have been received.

Australian Capital Territory

Chair: Professor John White



The Canberra Fellows Dining Club met with the combined Academies at meetings and for dinner on five occasions in 2007 and there was an extensive program of lectures and discussions. Dr John Passioura FAA and Professor Susan von Caemmerer FAA are thanked for this.

A talk was given by Emeritus Professor Henry Nix from the Centre for Resource and Environmental Studies at the Australian National University on 22 February called *Ludwig Leichhardt – landscape ecologist and explorer*. A lecture entitled *Good wine, good health?* was given by Emeritus Scientia Professor Eugenie Lumbers, MBBS, MD, DSc, FAA in the Common Room at University House on 30 March. Dr John Magee, from the Department of Earth and Marine Sciences at the ANU, spoke on *Extinction of giant flightless birds in Australia and Madagascar: Unravelling the role of humans and climate* on 31 May; and Professor Will Steffen, Director of The Fenner School of Environment and Society at the ANU, spoke on *The Anthropocene: From hunter-gatherers to a global geophysical force* on 26 July.

Thursday 27 September was the occasion when Professor Harvey Marchant, Visiting Fellow at the Department of Earth and Marine Science of the ANU, talked on *The other problem of increasing atmospheric CO₂ concentration – acidification of the oceans*. On 7 November Professor Gunnar Öquist from the Department of Plant Physiology at Umeå Plant Science Center at Umeå University in Sweden spoke in the Shine Dome on *Linnaeus as a role model for today's science*. He spoke again on Thursday 8 November about *The Nobel Prize as a benchmark for research quality*. The annual

Combined Academies dinner was held on Friday 7 December.

A Talkback Science event was held at CSIRO Discovery on Thursday 9 August, the participants being Dr Andy Sheppard (Theme Leader, Biological Threats and Invasive Species at CSIRO Entomology), Dr Simon McKirdy (Chief Executive Officer at CRC Plant Biosecurity) and Dr Tony Peacock (Chief Executive Officer at Invasive Animals CRC).

How do scientists influence policy? The interplay of scientists, science and policy was the second Talkback forum of 2007 at CSIRO Discovery on 13 September. The panel members were Dr Les Rymer (General Manager, Government Relations at CSIRO), Dr Daniel Connell (Crawford School of Economics and Government at the ANU) and Mr Bradley Smith (Executive Director of the Federation of Australian Scientific and Technological Societies).

New South Wales

Chair: Professor Elspeth McLachlan



The NSW Fellows were again invited to attend a number of events organised by the NSW Fellows of the Academy of Technological Sciences and Engineering (ATSE), including a dinner on 28 March at which Sir Gregory Winter from the MRC Laboratory of Molecular Biology, Cambridge, UK, spoke about his work on antibody engineering and development for therapeutic purposes.

The NSW Fellows met on 17 October to hear the story behind the publicity about stem cells. Associate Professor David Haylock, Director of the Major National Research Facility at the Australian Stem Cell Centre, introduced the therapeutic applications of stem cells, Reverend Dr Ivan Head, Warden of St Paul's College at

the University of Sydney, discussed the ethical dilemma in the use of embryonic stem cells, and Professor Peter Schofield, Director of the Prince of Wales Medical Research Institute and a member of the Lockhart Committee, described the political events leading up to the amendments to the legislation.

The annual dinner was held at Women's College at the University of Sydney on 22 November and was a most enjoyable event at which we met several of the new Fellows. Professor Gavin Brown FAA presented the toast to the Academy and spoke eloquently about universities and the future.

Queensland

Chair: Professor Peter Drummond



The year 2007 was an extremely busy year, with much public activity related to the work of many Academy Fellows.

In January, Townsville Fellow Professor Ross Crozier attended meetings to help extend the *Primary Connections* program in central Queensland. The program is a partnership between the Academy and the Australian Government Department of Education, Employment and Workplace Relations, to develop science literacy in primary schools. The reference group of the program is ably chaired by Queensland Fellow Professor Julie Campbell.

There were numerous public talks and lectures on medical science across the country in 2007 by Australian of the Year Professor Ian Frazer FAA as Australia commenced its national cervical cancer vaccination program – an outgrowth of Ian Frazer's work. Talks were given in Queensland locations ranging from the Gold Coast to Port Douglas. A typical example of these outreach talks which helped present the outstanding research of an Academy Fellow, was the talk presented on 23 May to the Queensland Medical Women's Society: *Research and development of the Gardasil vaccine*. As an outgrowth of the research, the Queensland government

will fund a new research institute focusing on the translation of medical research into practical therapies.

Ongoing mobility of Queensland Fellows is indicated by the return of Professor Maria Orłowska to Poland in 2007, where she has accepted the position of Secretary of State in The Ministry of Science and Higher Education, in the Polish government.

At the University of Queensland, the magnificent new 7-storey building of the Queensland Brain Institute (QBI) opened in September 2007. Directed by Professor Perry Bartlett FAA, QBI now has a modern and aesthetic facility to pursue its research. QBI will address not just the fundamental questions of how memory and learning work, but also the issue of how to deal with the overwhelming tide of neurological disease and mental ill health in the community.

Also in September, there were presentations by Professor Hugh Possingham FAA and Professor Graeme Turner, President of the Australian Academy of the Humanities. The occasion was the inaugural UQ Federation Fellows Public Lecture at the Brisbane Customs House.

South Australia

Chair: Professor Robert Vincent



The South Australian Fellows continued to make active contributions to the work of the Academy. Professors Sally Smith and John Ralston served on Council, Professor Bob Vincent chaired the National Committee for Antarctic Research and served on the National Committee for Space Science, Professor Andrew Smith represented the Academy at the opening of the Australian Garden at the South China Botanical Garden, and a number of Fellows served on Academy committees. Professor Michael Barber has taken up the position of Vice-Chancellor at Flinders University and Professor Max Brennan is Chief Scientist of South Australia.

The South Australian Regional Group has continued its collaboration with the South Australian branch of ATSE

and join them in their Christmas function. This ongoing collaboration contributes to the promotion of science in South Australia.

Tasmania

Chair: Dr Trevor McDougall



The Tasmanian chapter of Fellows, together with the Royal Society of Tasmania, arranged a series of three public lectures during the winter of 2007. We had a total of eight speakers, addressing the general topic of climate change and its implications for agriculture, water supply and economics.

Victoria

Chair: Professor Tony Klein



The annual symposium for newly elected Fellows and Medal winners was held on 14 June at the University of Melbourne. Newly elected Corresponding Member, Professor Elizabeth Blackburn, opened the program with an overview of her work. This was followed by brief talks presented by Professors Min Gu and Douglas MacFarlane, newly elected Fellows, and by Professors Peter Hall, Robyn Hyndman and Jamie Rossjohn, recipients of the Matthew Flinders, Moran and Gottschalk Medals, respectively. The symposium was followed by a dinner for Victorian Fellows and their guests, including all the presenters.

A very well attended Joint Academies' Dinner was held on 21 August. It featured the Chairman of the Australian Nuclear Science and Technology Organisation Dr Ziggy Switkowski as the guest speaker, who gave a very stimulating outline of the likely future of energy supply in Australia. Organised this year by ATSE, it was once again held in the Bio21 Institute Building.

On 30 October the High Flyers Think Tank was held at the University of Melbourne, organised and hosted by the Academy Secretariat in Canberra. This highly successful event had as its theme extreme natural hazards and is reported in more detail elsewhere. The President, Professor Kurt Lambeck, introduced and chaired the day's program.

It was with great pleasure that the Victorian Fellows welcomed the informal visit by the President and Mrs Lambeck to this year's Christmas party for Fellows and guests, on 22 November. It was by all accounts a rollicking affair, helped along by a three-piece gypsy band and a fine dinner at the Observatory Café in the Royal Botanic Gardens – the usual venue.

Western Australia

Chair: Dr Bruce Hobbs



The Western Australian Fellows met with the President of the Academy on 16 May at a dinner held at the Weld Club to award Professor David Groves the Haddon Forrester King Medal sponsored by Rio Tinto. The meeting date was set to coincide with the annual conference of the Cooperative Research Centres Association. Several west Australian Fellows were able to join with ATSE Fellows at their Annual Symposium held in Perth on 19 and 20 November, *Resources boom: Opportunities and consequences*.