

The Commonwealth Science Council Terms of Reference

Purpose

The Commonwealth Science Council is responsible for providing advice to the Prime Minister and other Ministers on important science and technology issues facing Australia.

Functions

The Commonwealth Science Council is to advise the Government on:

- a strategic and whole-of-government approach to all aspects of science, technology, engineering, mathematics and innovation;
- areas of national strength in science, research and innovation and current and future capability need;
- opportunities to improve the impact, focus, prioritisation and quality of Australia's investment in science and research, including advice on national priorities for science and research;
- improving connections between government, research organisations, universities and business; and
- matters requested by the Prime Minister or the Ministers, and/or considered important by the Council.

In undertaking its work, the Commonwealth Science Council may refer matters to the National Science, Technology and Research Committee (NSTRC) and/or establish short-term expert working groups to assist with specific tasks.

Membership

The Commonwealth Science Council's membership is:

- the Prime Minister (Chair);
- the Minister for Industry (deputy Chair);
- the Minister for Education;
- the Minister for Health;
- Australia's Chief Scientist (Executive Officer);
- five eminent scientists or educators; and
- five eminent business representatives.

Other Ministers and/or experts may be invited to attend Council meetings based on the subject matter under consideration.

Administrative Arrangements

The Commonwealth Science Council will meet twice per year. The Agenda for Council meetings will be agreed by the Prime Minister based on advice from the Minister for Industry and input from the Chief Scientist, the Minister for Education and the Minister for Health. The Office of the Chief Scientist will provide secretariat support for the Council. Actions arising from Council meetings will be progressed by relevant Ministers and/or the Chief Scientist.

The Chief Scientist will establish and chair a National Science, Technology and Research Committee, comprising chief executives of Australia's key scientific and research agencies and the National Health and Medical Research Council and the Australian Research Council, and senior representatives from relevant Commonwealth Government departments, to support the work of the Commonwealth Science Council.

COMMONWEALTH SCIENCE COUNCIL

– MEMBER BIOGRAPHIES –

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Research and education sectors

PROFESSOR TIMOTHY DAVIS (WA)



Professor Timothy Davis is a general physician, tropical medicine specialist and diabetologist at Fremantle Hospital, and Winthrop Professor of Medicine, University of Western Australia.

Professor Davis completed his Bachelor of Medical Science, a Bachelor of Medicine, and Bachelor of Surgery at the University of Western Australia, and his PhD at Oxford. He had research interests in diabetes since 1978 and in tropical medicine since 1987, and is still active in both areas.

Professor Davis is principal investigator of the Fremantle Diabetes Studies Phases I and II, a large-scale prospective study of diabetes in a community-based cohort which has also led to the formation of the Busselton Diabetes study and the Fremantle Cognition in Diabetes Study. He is also an associate investigator on the United Kingdom Prospective Diabetes Study.

Professor Davis reviews papers for diabetes journals such as Diabetes Care, Diabetologia and Diabetic Medicine, as well as those in allied areas such as Stroke and the Medical Journal of Australia. He is a member of Australian Diabetes Society and the American Diabetes Association and has given numerous invited talks on clinical and epidemiological aspects of diabetes.

Professor Davis is author or co-author of more than 340 papers, the majority on diabetes, endocrinology, malaria and other tropical diseases. He has also authored numerous review articles, editorials and commissioned commentaries, books and book chapters.

Professor Davis is the 2014 Kellion Lecturer, Australian Diabetes Society, a member of the Australian Government Medical Services Advisory Committee, and a member of the National Health and Medical Research Council Research Translation Faculty Diabetes Steering Group.

PROFESSOR IAN FRAZER AC (QLD)



Professor Ian Frazer AC is a physician and immunologist whose work led to the development of Gardasil®, the vaccine for Human Papillomavirus (HPV), which helps prevent cervical cancer.

Professor Frazer was born in 1953 in Glasgow, Scotland, into an academic family. He studied medicine at Edinburgh University and trained as a renal physician and clinical immunologist. In 1974, as part of his studies, Professor Frazer spent three months at the Walter and Eliza Hall Institute of Medical Research in Melbourne.

In 1981, Professor Frazer returned to the Walter and Eliza Hall Institute where he continued his clinical training and undertook studies in viral immunology and autoimmunity and became particularly interested in HPV.

In 1985, he took up a teaching position with the University of Queensland. In 1989, he became an Associate Professor at the Department of Medicine, and in 1994 he became a Professor of Medicine at UQ, which he remains to this day.

When he moved to Brisbane in 1985 he decided to continue his work with HPV, in particular HPV and cervical cancer. This work, performed with his colleague, the late molecular virologist Dr Jian Zhou, led to the development of a vaccine which prevents infection with HPV and cervical cancer.

From 1991 to 2011 he was Director of the Diamantina Institute at the University of Queensland. He is immediate past President of the Cancer Council Australia and chair of the Scientific Advisory Council of the International Agency for Research on Cancer.

He has received numerous awards in recognition of his work, including Australian of the Year (2006), the Florey Medal (2007), the Prime Minister's Prize for Science (2007), and was made a Companion of the Order of Australia in 2012.

Professor Frazer is currently Chief Executive Officer and Director of Research at the Translational Research Institute, an Australian-first initiative of 'bench to bedside' medical research. In this role, Professor Frazer heads an expert cohort of over 650 researchers from four leading medical research institutes.

PROFESSOR NALINI JOSHI (NSW)



Professor Nalini Joshi is Chair of Applied Mathematics at the University of Sydney, and a Georgina Sweet Australian Laureate Fellow.

Professor Joshi was born and spent her early childhood in Burma, before her family emigrated to Australia. She was awarded a BSc (Hons), with the University Medal in applied mathematics, from the University of Sydney and then a Masters and PhD in computational and applied mathematics from Princeton University in the USA.

Following her doctorate, she held positions at the Australian National University, the University of New South Wales, and the University of Adelaide, before returning to the University of Sydney in 2002 to take up the Chair of Applied Mathematics. At the University of Sydney, she was Director of the Centre for Mathematical Biology during 2006-2012 and Head of the School of Mathematics and Statistics from 2007 to 2009.

Professor Joshi was elected a Fellow of the Australian Academy of Science in May 2008, was elected to its Council in 2012 and is currently Chair of the Academy's National Committee for Mathematical Sciences. She was President of the Australian Mathematical Society during 2008-2010, held a number of positions on its Steering Committee and Council and was a board member of the Australia Mathematics Trust during 2010-2013.

In 2012, Professor Joshi was awarded an Australian Research Council Georgina Sweet Laureate Fellowship to work on the five-year project Geometric Construction of Critical Solutions of Nonlinear Systems. The project aims to create new mathematical methods to describe critical solutions of nonlinear systems, which are ubiquitous in modern science. The prestigious Georgina Sweet Australian Laureate Fellowship is awarded to women who are research leaders of international repute, with additional funding to undertake an ambassadorial role to promote women in research. Professor Joshi aims to increase the profile of women in science through workshops that will simultaneously promote and support female researchers.

Professor Joshi is the author of many research papers in the mathematical sciences and is on the editorial board of international peer-reviewed journals in mathematics as well as an international series of conferences on discrete integrable systems.

PROFESSOR TANYA MONRO (SA)



Professor Tanya Monro is Deputy Vice Chancellor (Research and Innovation) at the University of South Australia. She was the founding Director of the ARC Centre of Excellence in Nanoscale BioPhotonics and of the Institute for Photonics & Advanced Sensing.

She is also a Professor of Physics within the School of Chemistry & Physics at the University of Adelaide, where she worked from 2005-2014.

Professor Monro is an ARC Georgina Sweet Laureate Fellow, a prestigious Australian Research Council fellowship awarded to women who are research leaders of international repute.

Professor Monro gained her PhD in Physics at the University of Sydney in 1998 for which she won the Bragg Gold Medal, after which she worked at the University of Southampton in the United Kingdom where she secured a Royal Society University Research Fellowship. Professor Monro joined the University of Adelaide in early 2005 as the inaugural Chair of Photonics and the Director of the Defence, Science and Technology Organisation Centre of Expertise in Photonics.

Professor Monro is a Fellow of the Australian Academy of Science, the Australian Academy of Technological Science and Engineering and the Optical Society of America.

Professor Monro was 2011 Australian of the Year for South Australia, 2011 National Telstra Business Woman of the Year (Community and Government) and winner of the Prime Minister's Malcolm McIntosh Prize for Physical Scientist of the Year in 2008.

She is Vice President of the Australian Academy of Technological Sciences and Engineering, a member of the South Australian Economic Development Board. She chairs the Council of the National Youth Science Forum.

Professor Monro has published over 500 papers in journals and refereed conference proceedings and is an inventor of 17 patent families.

PROFESSOR BRIAN SCHMIDT AC (ACT)



Professor Brian Schmidt AC is a world-renowned astronomer, who shared the 2011 Nobel Prize for Physics for the discovery of the accelerating expansion of the Universe through observations of distant supernovae.

Professor Schmidt was raised in Montana and Alaska, USA, and received undergraduate degrees in Physics and Astronomy from the University of Arizona in 1989.

Under the supervision of Robert Kirshner, he completed his Astronomy Master's degree (1992) and PhD (1993) from Harvard University. In 1994, he and Nicholas Suntzeff formed the High-Z Supernova Search team, a group of 20 astronomers on five continents who used distant exploding stars to trace the expansion of the Universe back in time. This group's discovery of an accelerating Universe was named *Science Magazine's* Breakthrough of the Year for 1998.

Professor Schmidt joined the staff of the Australian National University in 1995. He was awarded the Australian Government's inaugural Malcolm McIntosh Award for achievement in the Physical Sciences in 2000, The Australian Academy of Science Pawsey Medal in 2001, the Astronomical Society of India Vainu Bappu Medal in 2002, and an Australian Research Council Federation Fellowship in 2005. In 2006, he was jointly awarded the Shaw Prize for Astronomy, and shared the 2007 Gruber Prize for Cosmology with his High-Z Supernova Search Team colleagues.

He is a Fellow of the Australian Academy of Science, the United States Academy of Science, Royal Society, and Foreign Member of the Spanish Royal Academy of Sciences. In 2013, he was made a Companion of the Order of Australia.

Professor Schmidt is continuing his work using exploding stars to study the Universe, and has led Mt Stromlo's effort to build the SkyMapper telescope, a new facility to develop a comprehensive digital map of the southern sky from ultraviolet through near infrared wavelengths.

Business and innovation sectors

MR KEN BOAL (VIC)



Mr Ken Boal is the Vice President of Cisco Australia and New Zealand, where he is responsible for driving growth and market leadership through the innovative use of technologies and services.

Mr Boal graduated from the University of Queensland in 1991 with a Bachelor of Electrical Engineering (Communications & Electronics). Prior to joining Cisco, Mr Boal spent 10 years at Anixter Inc/NetStar, an Asia Pacific network systems integrator as Southern Region General Manager. He commenced his career at Honeywell in a technical role in the Building Management area.

Mr Boal joined Cisco in 2004 and led the company's engagement in the public sector with Australia's federal, state and territory governments, defence, education and healthcare.

His role was then expanded to also include the enterprise customer segment. In this role, he was responsible for identifying and leading growth and development in the enterprise and public sectors as well as managing the sales force that drive Cisco business in these areas.

Mr Boal is committed to working with the higher education sector to enhance Australia's role in the knowledge economy. He has also held a leadership position within Cisco's primary education initiative, the Cisco Networking Academy, where he manages the team responsible for the delivery of the program into the Australian education system.

Mr Boal is the President of the Business/Higher Education roundtable, a not for profit organisation which champions and recognises collaboration between universities and industry.

MR MICHAEL CHANEY AO (WA)



Mr Michael Chaney has more than 27 years of experience in a range of industries in executive, financial management and governance roles. He is the current Chairman of the National Australia Bank, Woodside Petroleum, Gresham Partners Holdings, and the International Education Advisory Council, as well as the Chancellor of the University of Western Australia.

Mr Chaney graduated with Bachelor of Science and Master of Business Administration degrees from the University of Western Australia in 1972 and 1980 respectively.

After obtaining his Science degree, Mr Chaney worked for eight years as a petroleum geologist in Australia and the United States, joining the Australian Industry Development Corporation in 1980.

Mr Chaney joined Wesfarmers in 1983 as Company Secretary and Administration Manager, becoming Finance Director in 1984 and Managing Director in July 1992. He retired from that position in 2005.

He has been the Chairman of the National Australia Bank since September 2005 and a Non-Executive Director since December 2004.

In addition to his Chairmanships, Mr Chaney is a current Director of the Centre for Independent Studies, a member of the JP Morgan International Council and the Prime Minister's Business Advisory Council.

DR JACKIE FAIRLEY (VIC)



Dr Jackie Fairley is the Chief Executive Officer of Starpharma Holdings Ltd, and has more than 25 years' experience in the pharmaceutical and biotechnology industries in business development and senior management roles.

Dr Fairley holds first class honours degrees in Science (pharmacology and pathology) and Veterinary Science from Melbourne University and was a practising veterinary surgeon prior to joining CSL in 1989, where she worked in various executive roles until 1994, when she joined Faulding Hospitals Pharmaceuticals and Vice President of International Business.

From 2001 she was Managing Director and CEO of Cerylid Biosciences, until joining Starpharma Holdings Ltd as Chief Operating Officer in 2005. Dr Fairley was appointed as CEO and Director of Starpharma Holdings Ltd in 2006.

While at CSL she obtained an MBA from the Melbourne Business School where, as Dux of her final year, she was the recipient of the prestigious Clemenger Medal and a number of other academic prizes. Dr Fairley is also a Graduate of the Australian Institute of Company Directors.

Dr Fairley currently sits on the board of the Melbourne Business School, and is a past member of the Federal Government's Pharmaceutical Industry Working Group and the Federal Ministerial Biotechnology Advisory Council. She is also an advisor to the Carnegie Innovation Fund.

MR DAVID KNOX (SA)



Mr David Knox is the Managing Director and Chief Executive Officer of Santos International, and has more than 30 years' experience in the global oil and gas industry.

Mr Knox holds an honours degree in Mechanical Engineering from Edinburgh University and a Masters of Business Administration from the University of Strathclyde.

Between 1982 and 1990, he worked in a number of engineering roles in the United Kingdom, the Netherlands, Scotland and Norway for Shell International. In 1990, he joined ARCO International as an engineer, moving to Production Management in 1995 and Strategic Planning in 1998.

In 2000, Mr Knox became President of BP Pakistan, before working for BP in London in 2002, and as Managing Director of Exploration and Production in Perth from 2003.

In 2007, Mr Knox was appointed to the role of Executive Vice President of Santos International, becoming Managing Director and Chief Executive Officer in 2008.

Mr Knox is a member of the CSIRO Advisory Council, Royal Institute of Australia, the Migration Council, the Trade and Investment Policy Advisory Council and Director of the Botanic Gardens Foundation.

He is a Fellow of the Australian Academy of Technological Sciences and Engineering.

MS CATHERINE LIVINGSTONE AO (NSW)



Ms Catherine Livingstone AO is the current Chairman of Telstra Corporation Ltd, has nearly 20 years' experience in the medical device industry, and has extensive experience as a public company director.

After qualifying as a chartered accountant and working with Price Waterhouse in Sydney and London, Ms Livingstone joined the Nucleus Group and spent nearly 20 years working in the field of implantable medical devices, including six years as CEO of Cochlear Limited from 1994-2000. She was Chairman of the Board at CSIRO from 2001 to 2006.

Ms Livingstone is current President of the Australian Museum Trust, and Business Council of Australia, as well as current Director of the Board at Worley Parsons, the George Institute and Saluda Medical. She is a member of the Advisory Board for the John Grill Centre for Project Leadership at University of Sydney. She is a member of the Prime Minister's Business Advisory Council.

She has previously been a member of the Board of Macquarie Group and Macquarie Bank, Rural Press Limited, Goodman Fielder, and the Export Finance & Insurance Corporation.

In 2008, Ms Livingstone was appointed an Officer of the Order of Australia for service to the development of Australian science, technology and innovation policies to the business sector.

She is also a Fellow of the Australian Academy of Technological Sciences and Engineering and a Fellow of the Australian Academy of Science.