

THE ETHOS RESEARCH LEADERS FORUM

A leadership development program

Our Panel of Guest Presenters

Please see below for profiles of each of the Guest Presenters

Ethos Research Leaders Forum 2008

- Dr Leanna Read
- Professor John Ralston
- Laureate Professor Ian Frazer
- Professor Edwina Cornish

Ethos Research Leaders Forum 2008/09

- Dr Matthew Cuthbertson
- Professor Vicki Sara
- Emeritus Professor Max Brennan
- Dr Deborah Rathjen

Ethos Research Leaders Forum 2009/10

- Professor Robin Batterham
- Dr Leanna Read
- Laureate Professor John Ralston
- Professor Vicki Sara

Introduction

Participants of the Ethos Research Leaders Forum have the opportunity to meet prominent Australian research leaders and to discuss with them research leadership challenges and examples of best practice in a relaxed, informal environment.

These guest presenters do not talk of leadership from a theoretical perspective; they speak from personal experience about such issues as what needs to be done to establish sustainable, international research alliances, commercialise research outcomes or to build genuine succession planning. Their experience is varied, they come from many disciplines and they have all achieved prominence in the international research environment.

Dr Leanna Read BAgSc(Hons) PhD FTSE, FAICD



Leanna Read is the foundation managing director and CEO of TGR BioSciences Pty Ltd, an Adelaide-based biotechnology company that focuses on the discovery and development of therapeutic medicines for skin and gastrointestinal disorders.

Leanna conceived of and managed the Company's spin-out from the CRC for Tissue Growth and Repair in 2001.

She is a physiologist by training, with 90 scientific papers and adjunct professorial appointments at Flinders University and the University of SA. Leanna has over 15 years' experience in research and commercialisation of bioactives from natural products. This has included discovery of the protective effects of TGR's milk bioactive extract in mucositis and inventorship on two of the patents that underpin this opportunity.

She has been CEO of successful research and commercial ventures, including the Child Health Research Institute and the CRC for Tissue Growth and Repair.

Leanna's industry contributions have been recognized by appointment to the boards of national bodies including the Prime Minister's Science, Engineering and Innovation Council, the Federal Industry R&D Board, and the SA Economic Development Board, as well as her appointment as Fellow of the Australian Academy of Technological Sciences and Engineering.

She has received a number of prestigious awards including a Flinders University Convocation Medal and Doctor of the University of SA, as well as the inaugural Industry Service Award by the Australian Biotechnology Association and the 2006 South Australian of the Year in the Category of Science and Technology.

Laureate Professor John Ralston

Position

Director, Ian Wark Research Institute
Laureate Professor of Physical Chemistry and
Minerals Processing



Qualifications

Dr.h.c. Abo Akademi, Finland (2002); PhD
Melbourne (1978); DIC Imperial College
London (1974); DipEd Melbourne (1971); MSc Melbourne (1970); BSc(Hons) Melbourne
(1968)

Background

John is a physical and colloid chemist, with complementary training in metallurgy, whose research interests embrace various aspects of interfacial science and engineering. He is the author of over 260 refereed journal articles and textbook chapters, plus numerous conference papers and industry reports, and acts as referee for major international journals. He was President of the Physical and Biophysical Chemistry Division of the International Union of Pure and Applied Chemistry (IUPAC) from 2002 to 2004 and is presently a Council member of IACIS. He is regularly invited to give plenary and keynote lectures overseas. John was awarded a Senior Fulbright Fellowship in 1986, the R.K. Murphy Medal in Industrial Chemistry/Chemical Engineering by the RACI in 1995, the RSC Australasian Lectureship in Chemistry in 1997 and an Australian Federal Government Centenary Medal in 2003. He has held invited Professorships in Cape Town, Lulea, Bristol, Utah and Florida.

John is the founding Director and Professor of Physical Chemistry and Minerals Processing at the Ian Wark Research Institute, the ARC Special Research Centre for Particle and Material Interfaces and DEST Centre for Nano and Biomaterials. He has actively supervised more than sixty PhD research students over the past two decades. John was awarded an Honorary Doctorate from the Abo Akademi, Finland, in 2002.

In 2006 John was appointed as Laureate Professor by the University of South Australia. Later in 2006, he was awarded the Premier's Science Excellence Award in Research Leadership, followed by the Chemeca 2006 Medal for Outstanding Service and Contribution to Chemical Engineering. John was the principal researcher who led the initiative to establish the Australian Mineral Science Research Institute (AMSRI). This

commenced on 1 January 2006, and is a virtual institute in particle science and engineering, with its headquarters at The Wark. AMSRI involves collaborative research at the Universities of Queensland, Melbourne and Newcastle. Major international companies are involved, through AMIRA International, along with overseas collaborators, in this long term strategic research project. John has been awarded over \$100M in competitive grant funding from the Australian Research Council, DEST and national and international private industry since 1984.

Outside science, he has a strong interest in literature, world history, travelling and sport, especially skiing.

Professor Ian Frazer

Introduction

Ian Frazer is director of the Diamantina Institute of Cancer Immunology and Metabolic Medicine, a research institute of the University of Queensland at the Princess Alexandra Hospital in Brisbane. He was trained as a renal physician and clinical immunologist in Edinburgh, Scotland before emigrating in 1981 to Melbourne, Australia to continue his clinical training and to pursue studies in viral immunology and autoimmunity at the Walter and Eliza Hall Institute of Medical Research with Prof Ian Mackay. In 1985 he moved to Brisbane to take up a teaching post with the University of Queensland, and he now holds a personal chair as head of the Diamantina Institute. This institute employs over 200 researchers and trains over 30 postgraduate students. Dr Frazer's current research interests include immunoregulation and immunotherapeutic vaccines, for which he holds research funding from several Australian and US funding bodies. Dr Frazer teaches immunology to undergraduate and graduate students of the University. He is on the board of the Queensland Cancer Fund, and is vice president of the Cancer Council Australia. He has sat on various committees of the National Health and Medical Research Council of Australia continuously over the last 15 years. He advises the WHO on papillomavirus vaccines. He was chosen as the 2006 Queenslander of the Year and the 2006 Australian of the Year.



Commercialisation

Dr Frazer consults with a number of organisations on immunomodulatory drugs, prophylactic and therapeutic vaccines. He is a named inventor on patents relating to HPV prophylactic and therapeutic vaccines licensed to CSL, Merck and GSK, and on patents on DNA vaccines and on optimising therapeutic protein expression licensed to Coridon Pty Ltd. He sits on the board of two for-profit small biotech companies and a number of not for profit organisations.

Research Funding

Dr Frazer is the inaugural holder of the Queensland government Smart State premier's fellowship, worth \$2.5m over 5 years. Dr Frazer has held continuous research funding

from the NHMRC since 1985, mostly relating to papillomaviruses or to tumour immunology. He is currently a joint CI on an NHMRC program grant and a NHMRC/Wellcome program grant, together worth >\$2m/year. He also holds competitive project grants from NHMRC, the Queensland Cancer Fund, and the Cancer Research Institute of New York.

Significant contributions to Biomedical Research

Since 1983, Dr Frazer has pursued an interest in development of vaccines to prevent human papillomavirus(HPV) infection and the ~0.5m annual deaths from papillomavirus related human cancers in the cervix and elsewhere. In 1985, with colleagues in Melbourne, he demonstrated, at a time when the association of papillomavirus infection with cervical cancer was still contentious, that papillomavirus infection also contributed to anal precancer, particularly in men with immunosuppression as a result of HIV/AIDS. In 1990, he and his then postdoctoral scientist, Dr Jian Zhou, developed the technology for producing human papillomavirus virus like particles. This technology, licensed through the University of Queensland, is now the basis of vaccines recently brought to market by GSK(Cervarix) and Merck (Gardasil) to prevent cervical cancer. The HPV vaccine is only the second vaccine to be produced using recombinant DNA technology, which was necessary because papillomaviruses could not be grown in cell culture. The development of HPV virus like particles was an early product of the application of comparative genomics, as sequence alignment for the genes for the major capsid proteins of a range of papillomaviruses showed that expression of the major capsid protein of the HPV16 virus from the second initiation codon in eukaryotic cells was likely to induce particle formation where conventional expression strategies had failed. Dr Frazer has also developed two different therapeutic vaccines for chronic HPV infection, one currently in Phase 2 clinical trials through CSL Ltd, an Australian Biotechnology company, and one in Phase 2 clinical trials in China and Brisbane with funding from the Cancer Research Institute of New York and The Wellcome Foundation. Dr Frazer has also developed a technology for improving the immune response to polynucleotide vaccines based on differential preferences for codon usage between cells of different lineages, which has been licensed to Coridon Pty Ltd and is currently being used to develop polynucleotide vaccines for Herpes viruses.

Professor Edwina Cornish

Edwina Cornish was appointed to the position of Deputy Vice-Chancellor (Research) at Monash University in February 2004.

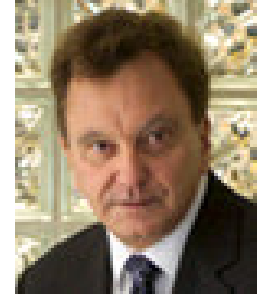
She was previously Deputy Vice-Chancellor (Research) and concurrently Professor of Biotechnology at the University of Adelaide.



Professor Cornish has a BSc (Hons) in Biochemistry and a PhD in Microbiology from the University of Melbourne. She played a key role in building one of Australia's first biotechnology companies, Florigene Limited. Under her leadership the company developed and successfully commercialised the world's first genetically modified flowers. She has been a member of the Board of the Australian Research Council and the South Australian Premier's Science and Research Council, and has served on the Prime Minister's Science and Engineering Council and the Victorian Government Science and Engineering Technology Taskforce. Professor Cornish is a Fellow of the Australian Academy of Technological Sciences and Engineering.

Dr Matthew Cuthbertson

Dr Matthew Cuthbertson (FTSE, FRACI, FAICD) has postgraduate qualifications in both science and intellectual property law. His early career was spent in advanced materials research with CSIRO and in various business/technical development roles with ICI Australia. He later joined optical lens maker SOLA International in Adelaide, rising to the position of Vice President Research and Technology - with global management responsibility for process and product development and an annual operating budget of \$25m. Matthew joined the CRC for Sensor Signal and Information Processing as CEO in 2003 and later that year he was awarded a Centenary of Federation Medal for his contributions to technological innovation in Australia.



In December 2005 he was appointed CEO of the new CRC for Advanced Automotive Technology, based in Melbourne. Matthew has a particularly strong record in strategic organisational development, innovation, research collaboration and technology transfer.

He serves on the boards of GroundProbe Pty Ltd, ARRB Group Ltd and the Ian Wark Research Institute, and he is an Adjunct Professor in technology innovation at the University of South Australia.

Professor Vicki Sara

Professor Vicki Sara FAA FTSE, is Chancellor of the University of Technology, Sydney. She was appointed Chief Executive Officer of the Australian Research Council (ARC) in July 2001. From September 1997 to June 2001 she was the chair of the ARC, and a member of the Prime Minister's Science, Engineering and Innovation Council (PMSEIC) and the CSIRO Board.



Professor Sara is chair of the Bureau of Meteorology Advisory Board and a director of the Rio Tinto Foundation for a Sustainable Minerals Industry and the Australian Centre for Plant Functional Genomics.

Emeritus Professor Max Brennan

Max Brennan graduated from the University of Sydney in 1954 with a BSc(Hons), and in 1958 with a PhD. He was awarded honorary degrees from Flinders University, Queensland University of Technology and Sydney University. Professor Brennan was made an Officer in the Order of Australia in 1985, and was elected a Fellow of the Australian Academy of Science in 1988.



He has had a distinguished academic career as Research Associate at Princeton University; Foundation Professor of Physics at Flinders University; and Professor of Physics at the University of Sydney. He also spent several years at Flinders University and Sydney University as Deputy Vice-Chancellor. Professor Brennan has also served on many committees, including the International Fusion Research Council, Australian Atomic Commission and the Australian Research Council. He retired in 1997 and is currently Emeritus Professor and consultant on higher education and research. In this capacity, he has been chairman of the Science and Engineering Panel of the CRC Program and World Bank consultant in Indonesia and Chile.

Professor Deborah Rathjen

Dr Deborah Rathjen joined Bionomics in June 2000 from Peptech Limited, where she was General Manager of Business Development and Licensing. Dr Rathjen was a co-inventor of Peptech's TNF technology and leader of the company's successful defence of its key TNF patents against a legal challenge by BASF, providing Peptech with a strong commercial basis for licensing negotiations with BASF, Centocor and other companies with anti-TNF products. Dr Rathjen has significant experience in research, business development and licensing. She is an expert in the field of cell biology with specific expertise in inflammation and cancer. Dr Rathjen is a member of the Federal Government's Australian Biotechnology Advisory Council, Prime Minister's Science Engineering and Innovation Council and Industry Research and Development Board.



Professor Robin Batterham

Professor Batterham is Group Chief Scientist, Rio Tinto Limited and a Professorial Fellow in the Department of Chemical and Biochemical Engineering at the University of Melbourne. As Group Chief Scientist, Professor Batterham is responsible for developing the Group's long term response to climate change and energy usage.

He has had a distinguished career in research and technology, in the public and private sectors. He worked with CSIRO in areas such as mining, mineral processing, mineral agglomeration processes, and iron making.

From 1988, Professor Batterham has held senior positions in Technology Development with CRA Limited, now Rio Tinto Limited. During this time, he led the development of a processing route for what is now recognised as the world's largest economic zinc mineralisation. He also contributed significantly to the HIs melt process to develop a novel direct smelting technology for iron making.



Professor Robin Batterham was Chief Scientist to the Australian Federal Government from 1999 to 2005. As Chief Scientist, Dr Batterham:

- provided advice on science, technology and innovation issues to the Australian Government;
- provided a link between Australian Government and science, engineering, innovation and industry groups;
- was Executive Officer of the Prime Minister's Science, Engineering and Innovation Council (PMSEIC). Professor Batterham remains a member of PMSEIC.

Professor Batterham is Past President of the Institution of Chemical Engineers; is Chairman of the International Network for Acid Prevention; and President of the National Science Summer School; Vice President of the International Mineral Processing Congress; and currently is President of the Australian Academy of Technological Sciences and Engineering (ATSE).

Fellowships and offices in major professional societies include:

- Fellow of the Australian Academy of Science
- Fellow of the Australian Academy of Technological Sciences and Engineering
- Corresponding Fellow of the Swiss Academy of Engineering Sciences
- Foreign Fellow Royal Academy of Engineering
- Foreign Associate of the National Academy of Engineering (USA)
- Fellow Institution of Chemical Engineers
- Fellow Institute of Engineers Australia
- Fellow Australian Institute of Management
- Fellow Iron & Steel Society America
- Fellow Australian Institute of Mining and Metallurgy
- Fellow of Australian Institute of Company Director
- President (Honorary) of the National Youth Science Foundation (Summer School)
- President of the International Mineral Processing Congress, 1991-94 and 2010, and Vice President of IMPC

Professor Batterham has given some hundreds of invited keynote lectures, has been a member of a number of major reviews of higher education and government research organisations, and has produced nearly 200 papers, publications and patents. He was editor for 12 years of the International Journal of Applied Mathematical Modelling and is a recipient of the Kernot medal from Melbourne University, the Chemeca Medal and the AusIMM Institute Medal 2004.

Professor Batterham is also an organist, holding a position at Scots Church in Melbourne.

