

UNIVERSITY OF SYDNEY CANCER RESEARCH SYMPOSIUM

SUCCEEDING IN RESEARCH TRANSLATION

THURSDAY 23 JULY 2009

MAIN AUDITORIUM, LEVEL 5, KOLLING BUILDING, ROYAL NORTH SHORE

SPEAKER BIOGRAPHIES

PLENARY SPEAKER

PROFESSOR COLLEEN NELSON

Professor Colleen Nelson is the founding Executive Director of the Australian Prostate Cancer Research Centre-Queensland and Chair of Prostate Cancer Research at Queensland University of Technology. The Centre, based at the Princess Alexandra Hospital, spans the spectrum of discovery of new therapeutic targets and their preclinical and clinical development. The Centre will comprise a major trans-disciplinary team within the Translational Research Institute. Prof Nelson is also Director of the Australian-Canadian Prostate Cancer Research Alliance, an initiative developed to coordinate national and international network interactions of >200 prostate cancer scientists and clinicians in Australia and Canada, facilitating access to state-of-the-art infrastructure and clinical trials to assist in the translation of a wide range of discoveries in both countries. Since arriving in Australia in 2007, Prof Nelson has been awarded >\$12 million in research grants. Prior to her appointment in Australia, she was a founding scientist of The Prostate Centre in Vancouver, a National Centre of Excellence in Research and Commercialization.

Prof Nelson's expertise is in translational prostate cancer research, specifically in identification of potential therapeutic targets, their in vitro and in vivo validation, clinical validation through molecular pathology approaches and their translation into potential clinical application. Prof Nelson has been on a number of Strategic and Scientific Advisory Boards for Biotech, NGOs, Health Organisations and for Government. Prof Nelson was the inaugural Director of the Microarray Platform for Genome Canada 2000-2009, Chair of the Canadian Prostate Cancer Research Initiative, Vice Chair Scientific and Medical Advisory and International Strategic Advisor for Prostate Cancer Canada. In Australia she has joined the Advisory Committee of the Australia New Zealand Uro-Genital Prostate Clinical Trials Group and has facilitated the activities of Prostate Cancer Foundation of Australia. She recently was awarded the prestigious \$1.25M Queensland Smart Futures Premier's Fellowship.

PROFESSOR ROB BAXTER

Rob Baxter is the Director of the Kolling Institute of Medical Research and heads the Hormones and Cancer Group, which includes one of the leading research teams internationally in studying the endocrinology, biochemistry and cell biology of the insulin-like growth factors (IGFs) and their binding proteins. His research has contributed to understanding both the regulation of normal tissue and body growth, and the aberrant cellular growth in cancer and overgrowth syndromes. The group's notable achievements include characterising the protein complexes which carry IGFs in the circulation, and discovering how IGF binding proteins affect cancer cell growth by modulating cell signalling pathways. His collaborative clinical studies have significantly advanced understanding of the role of these proteins in a variety of conditions including pregnancy, tumour-related hypoglycemia, and critical illness. In 2003 he established the Laboratory for Cellular and Diagnostic Proteomics in the Kolling Institute, and is now involved in both cell biology and clinical proteomic studies aimed at cancer diagnosis and disease biomarker discovery.

Rob was awarded his PhD in Biochemistry in 1973, and his DSc in 1990. National and international awards include the Dale Medal of the British Endocrine Society (1993), the Wellcome Australia Medal (1994), the Lemberg Medal of the Australian Society for Biochemistry and Molecular Biology (1997) and the Ramaciotti Medal for Excellence in Biomedical Research (2002). He was elected a Fellow of the Australian Academy of Science (FAA) in 2004. His publications have been cited >17,000 times and he is an ISI Highly Cited Researcher in Biology and Biochemistry with an "h" index of 70. He has given keynote plenary lectures at conferences in Australia, Europe, South America and the USA.

PROFESSOR RICHARD CHRISTOPHERSON

Professor Richard Christopherson was born in Melbourne and grew up in the seaside suburb of Beaumaris. After completing his PhD at the University of Melbourne, he was awarded a Fellowship of the Damon Runyon-Walter Winchell Cancer Fund tenable in the Department of Biochemistry at the University of Southern California Medical School in Los Angeles. After two years, he moved with Dr Mary Ellen Jones to the Department of Biochemistry at the University of North Carolina Medical School in Chapel Hill, where she became Head of Department and RIC held a Special Fellowship of the Leukemia Society of America. During this period, he studied the trifunctional protein CAD, that contains the first three enzymes of the *de novo* pyrimidine pathway. He elucidated the catalytic mechanism of the enzyme dihydroorotase, designed some potent inhibitors, and studied channeling of intermediates between the active sites of CAD. After 4 years in the USA, he returned to Australia as a Research Fellow in the John Curtin School of Medical Research where he worked on a bifunctional enzyme, chorismate mutase-prephenate dehydrogenase involved in aromatic amino acid biosynthesis. He was then appointed as the CR Roper Fellow in Medical Research at the University of Melbourne where he started his own research laboratory and synthesized several potent inhibitors of the enzyme dihydroorotase that were protected with US patents.

Professor Christopherson has worked at the University of Sydney for 22 years where he was the Foundation Chair of the School of Molecular and Microbial Biosciences (1998-2003) and holds a Personal Chair. He has investigated the cytotoxic mechanisms of a number of anticancer drugs, and his laboratory elucidated the antipurine mechanism of methotrexate, an antifolate drug used to treat a variety of cancers and autoimmune diseases. More recently, he has developed a CD antibody microarray that captures leukocytes expressing complementary surface molecules, enabling determination of an extensive immunophenotype (cell surface profile, disease signature) from a single assay. In 2005, this technology received the inaugural BioFirst Commercialisation Award from the NSW Government, and is protected by Australian and international patents. The University of Sydney has formed a spin-off company Medsaic, at the Australian Technology Park to commercialize these microarrays. In 2003, he established the Sydney University Proteome Research Unit with a large grant. His current research involves proteomic analysis of leukaemias, colorectal cancers and melanomas focusing on profiling cell surface proteins, and elucidating mechanisms of action of anticancer drugs using antibody microarrays and other methods of proteomic analysis. It should be noted that humans have approximately 21,000 genes, but more than one million different proteins, suggesting that defining the human proteome will be a greater challenge than the genome.

DR JENNIFER MACDIARMID

Together with Dr Himanshu Brahmbhatt, co-founder of EnGeneIC, a privately held biotechnology company in Sydney, Australia. Co-inventor of the EDV (EnGeneIC Delivery Vehicle) technology for the targeted delivery of drugs / regulatory RNAs (siRNAs) into cancer cells *in vivo*.

Dr MacDiarmid has a strong background in R & D innovation with a number of patents and publications in the fields of cancer and molecular vaccines. Formerly, a Senior Research Scientist at CSIRO, she has also undertaken research into bacterial and parasitic diseases.

ASSOCIATE PROFESSOR STAN SIDHU

Stan Sidhu is Associate Professor in the University of Sydney Endocrine Surgical Unit. He has one of the largest pure Endocrine Surgical practices in Australia, USA and Europe. He is responsible for training local and overseas Endocrine Surgeons in Fellowship positions based at Hornsby and Royal North Shore Hospitals.

He serves as the Public Officer of Australian Endocrine Surgeons, and the Secretary of the Section of Endocrine Surgeons in Australia. In addition he has extensive research interest into clinical outcomes in endocrine surgery and translational and basic science research projects to understand the pathophysiology of endocrine cancers and to determine ways in which targeted therapies can be developed to treat these cancers.

He is currently a NSW Cancer Institute Research Fellow leading a national adrenal cancer consortium to find better ways to treat this difficult disease. In the last decade he has presented at a number of local and

international clinical and scientific meetings and is currently the author or co author of over 80 publications in peer reviewed journals and book chapters.

DR ANTHONY GILL

Dr Gill is a surgical pathologist with particular expertise in endocrine, gastrointestinal and pulmonary pathology. In addition to holding a staff specialist position at Royal North Shore Hospital he is a clinical senior lecturer at the University of Sydney and a visiting scientist at the Garvan Institute of Medical Research.

Dr Gill has considerable experience in translation research. His particular expertise lies in transforming advances in basic sciences at the molecular level into techniques such as immunohistochemistry which can be used diagnostically in his specialty of surgical pathology. For example Dr Gill and his collaborators have demonstrated that immunohistochemical staining for the HRPT2 gene product parafibromin can be used to distinguish parathyroid carcinomas and HPT-JT syndrome tumours from benign parathyroid disease. His group also developed guidelines for interpretation of this test which are recognised internationally. These efforts have resulted in more than 40 publications in international peer reviewed journals in the last 5 years including such prestigious journals as the American Journal of Surgical Pathology, the American Journal of Respiratory and Critical Medicine, Endocrinology, the Journal of Clinical Endocrinology and Metabolism and the New England Journal of Medicine.

ASSOCIATE PROFESSOR FRAN BOYLE AM

Fran Boyle is a Medical Oncologist at North Sydney's Mater Hospital, where she is Director of the Patricia Ritchie Centre for Cancer Care and Research, and Associate Professor of Medical Oncology at the University of Sydney. A Graduate of the University of QLD, she completed her oncology training and a PhD (Pharmacology) in the Bill Walsh Laboratories at RNSH.

She currently Chairs the Scientific Advisory Committee of the ANZ Breast Cancer Trials Group and is a member of the Boards of the ANZBCTG and the Breast Cancer Network of Australia. Fran was honoured with Membership of the Order of Australia in 2008 for services to breast cancer research, advocacy, policy development and education.

DR ILONA JURASKOVA

Dr Ilona Juraskova is a Cancer Institute NSW Research Fellow, Lecturer in Health Psychology at the School of Psychology, The University of Sydney, and a clinical psychologist. She is also a Deputy Director (Psychology Division) of the Centre for Evidence-based Decision-making (CeMPED), the University of Sydney. Her areas of expertise are doctor-patient communication and psycho-sexual adjustment to cancer.

Dr Juraskova has taken a lead role in evaluating the impact of decision aids and communication skills training within clinical trial settings. To date, she has developed/evaluated five Decision Aids in the areas of cancer prevention and treatment. Since 2003, she has been a CI on 8 grants totalling over \$2.3m; published 14 peer-reviewed publications, and presented at 35 national and international scientific forums. She regularly (co-) facilitates communication skills training workshops for medical students and workshops organised by Cancer Trials NSW for clinicians, clinical trial nurses and data managers on informed consent to trials.

ASSOCIATE PROFESSOR IAN KERRIDGE

Associate Professor Ian Kerridge trained in medicine at the University of Newcastle, philosophy at the Universities of Sydney, Newcastle and Cambridge, and haematopoietic stem cell transplantation at the Royal Free Hospital, London. He is Director and Associate Professor in Bioethics at the Centre for Values, Ethics and the Law in Medicine at the University of Sydney and Staff Haematologist/Bone Marrow Transplant physician at Westmead Hospital, Sydney.

He has published widely in ethics and medicine/haematology and is the author of over 100 papers in peer-reviewed journals and three textbooks of ethics, most recently *Ethics and Law for the Health Professions* (Federation Press, 2009). He is Chair of the Australian Bone Marrow Donor Registry Ethics Committee, a member of the NSW Health Department's Clinical Ethics Advisory Panel and a member of the Editorial Boards

of the *Journal of Medical Ethics*, the *Journal of Bioethical Inquiry* and *Asian Bioethics Review*. In 2005 Ian was a member of the Legislation Review Committee (Lockhart Committee) which reviewed the *Prohibition of Human Cloning Act 2002* and the *Research Involving Human Embryos Act 2002*.

His current research interests in ethics include the philosophy of medicine, stem cells, synthetic biology, end-of-life care, the experience of illness and survival following cancer and bone marrow transplantation, public health ethics, donor issues in transplantation, moral psychology, publication ethics and the pharmaceutical industry.

DR ROSEMARY BALLEINE

Rosemary Balleine is a medical and PhD graduate of the University of Sydney who trained as a Pathologist at Westmead Hospital. She is currently a Cancer Institute NSW Fellow, research group leader in the Translational Oncology section of the Westmead Institute for Cancer Research at Westmead Hospital and a Clinical Senior Lecturer of the University of Sydney (Western Clinical School).

In her current role Dr Balleine is involved in a range of breast cancer research projects. Her work is particularly focused on aspects of breast cancer pathology. She is also one of the Chief Investigators involved in establishment of a Breast Cancer Tissue Bank.

DR ROB DUNNE

Dr Rob Dunne from CSIRO has worked in the statistics of molecular biology for some years now as part of a large collaboration on colon cancer. His interests are high-dimensional problems including robust methods, classification, and visualization. He has previously worked in remote sensing.

DR GERALD BOTH

Dr Gerald Both is a molecular virologist with a career spanning 35 years, largely at the CSIRO. He is now Chief Scientific Officer at Biotech Equity Partners, the company that has licensed the viral vector system he will speak on today. Gerry has also worked on several other viruses including influenza, rotavirus and adenoviruses. His major interest lies in the study and development of adenovirus vectors for gene delivery with a particular emphasis on vaccination and new treatments for cancer.

He currently has 134 publications and is an inventor on eight PCT patents or patent applications. Gerry has served on government committees that oversee gene technology, he is on the editorial board of the *J Gene Medicine* and has served on the Executive of the Australasian Gene Therapy Society since 2001, including four years as President. He was awarded Life Membership for scientific excellence and service this year.

DR ANTHONY ASHTON

Dr Anthony Ashton completed a Bsc (Hons class1) (1993) and PhD (1998) in the Department of Pathology at UNSW before moving to New York to take up a post-doctoral research position at the Albert Einstein College of Medicine. During this time Dr Ashton developed a program in angiogenesis research focussed primarily of revascularizing the heart post-infarction. His training in the department of Cardiology lasted until 2002 when he was promoted to his first non-tenure track faculty position in the Departments of Medicine and Pathology and began to change the focus of his research toward the regulation of tumour development. Tumour angiogenesis has remained his focus throughout his career to date including his appointment at the Kolling Institute. His work primarily focuses on endothelial specific regulators of angiogenesis and novel roles for the eicosanoid thromboxane (TX) A₂.