Second Annual Scientific Symposium

50th Anniversary
of the
Randwick Hospitals Campus
as
Teaching Facilities of UNSW

24 October 2013
The Galleries
John Niland Scientia Building
UNSW
The Health-Science Alliance Mission
The individual institutions comprising the Health-Science Alliance (HSA) and their staff are committed to working together in a spirit of collaboration in order to:

• continue as a multidisciplinary team to provide the best possible prevention and healthcare to our patients
• focus our health and medical research efforts on excellence and on rapid translation of discovery into the clinical setting
• identify and exploit synergies between our various activities, at the same time avoiding inefficiencies and maximising cooperation
• provide our clinical and non-clinical staff with the best educational facilities available in order both to support existing staff and to assist us in recruiting the best possible new staff

About the 50th Anniversary
This year marks the 50th anniversary of the clinical, teaching and research partnership between the Randwick Hospitals Campus and UNSW Medicine, one of largest medical teaching facilities in Australia.

With the establishment of a new medical school at UNSW came the urgent need for modern teaching hospitals. In the foreword to the 1965 journal of the UNSW Medical Society (NUNGARI), Professor Frank Rundle, Dean, wrote:

“...Lack of facilities for the clinical instruction of undergraduates has impeded development of the Medical School, but there is now encouraging news from the hospital front. Long-awaited buildings at Prince Henry Hospital (necessary to convert it from an infectious diseases hospital to a modern teaching hospital) have been completed and were opened this February by the Minister for Health. The buildings include a clinical sciences block which provides facilities for students, and staff offices and laboratories for the Schools of Medicine, Surgery and Psychiatry. ....... the development programme of Prince Henry is being closely co-ordinated with plans for a new hospital on the Prince of Wales site.”

Since those times, the Randwick Teaching Hospitals and UNSW Medicine have come a long way. In December 2010, the first Academic Health Sciences Centre in Australia – the Health-Science Alliance was established. This new partnership of hospitals, medical research institutes and universities cements and formalises the long tradition of cooperation in the triple mission of the entities involved, namely, healthcare, research and teaching.
Welcome from the Chairman

The second Health Science Alliance (HSA) symposium celebrates the 50 year clinical, research and teaching partnership between the Randwick hospitals campus and the University of New South Wales (UNSW). Today, we take a look back to the start of our long tradition of cooperation and collaboration, building the foundations for the establishment of The Health-Science Alliance in 2010.

Since its inception, the Randwick Hospitals Campus has provided essential access to patients and clinical experience for medicine, nursing and allied health students, along with the opportunity to be part of a collaborative, dynamic cross-functional environment.

Today’s event at UNSW will include a mix of historical and scientific presentations including a focus on some contemporary issues addressing the prevalent health concerns of cancer, child health and cardiovascular disease. It also reveals something of the culture and character of this campus and its importance to our success.

I would like to take this opportunity to personally welcome you all, to thank our guest speakers and everyone attending for your support of this initiative which one day may be seen as a small step in ushering in a new era of healthcare. Please enjoy.

Yours sincerely

Peter Joseph AM
# Program Overview

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1:00 – 1:20pm  
**Jenny Namkoong:** “A truth universally acknowledged”  
*Chair: Terry Campbell AM, Senior Associate Dean, UNSW Medicine*

1:25 – 2:45pm  
**Scientific Session 2: Cancer Genomics**  
**James Isbister:** “A brief historical background of human genetics at UNSW and Prince of Wales Hospital”  
**Peter Burger:** “Pathological brain tumour diagnosis: Then and now”  
**Robyn Ward AM:** “Unzipping genomes and the public purse – science and society collide”  
**Bette Liu:** “Big data – how large scale prospective studies can help to set priorities for cancer prevention and treatment”  
*Chair: James Isbister, Clinical Professor of Medicine, Sydney Medical School, Royal North Shore Hospital*

2:45 – 3:00pm  
**AFTERNOON TEA**

3:00 – 4:30pm  
**Scientific Session 3: Child Health**  
**Personalised Medicine in Paediatrics**  
**Glenn Marshall:** “Individualising cancer control for children”  
**Nadine Kasparian:** “To cure and to care: Developing models of psychological care in paediatric heart disease.”  
**Michelle Farrar:** “It’s a new tool, not a new toy: Understanding neurodegeneration in spinal muscular atrophy”  
**Maria Craig:** “Autologous cord blood for prevention of type 1 diabetes”  
*Chair: Adam Jaffé, John Beveridge Professor of Paediatrics, Head of Discipline of Paediatrics, School of Women’s and Children’s Health, UNSW*

4:30pm  
**CLOSE**
“Here come the students”

Abstract: The decision by the recently established UNSW in late 1958, to create the 2nd Medical Faculty for the State of NSW, and to make Prince Henry Hospital (PHH) its first teaching hospital with students entering their first undergraduate year in 1961, meant that those charged with preparing PHH for its teaching role, had barely 3 full years to accomplish the task.

The newly appointed PHH board with majority UNSW representation was required to oversee appointment of Foundation Professors in Medicine, Surgery and Pathology followed by Paediatrics, Psychiatry and Rehabilitation, plus a new CEO for PHH. These appointees were to establish the relevant divisions and departments, undertake renovations and revisions of existing facilities, and complete an extensive new building program.

These activities were proceeding rapidly when in May 1961, the first case of paralytic poliomyelitis was admitted to PHH from the Wollongong area, in an epidemic which continued for 12 months. During this time, 196 cases of paralytic polio were admitted, of whom 20 died. Despite this tragic diversion, when the first clinical students entered PHH, the hospital and its organisation were in readiness to receive them.
Peter BURGER (USA)

Dr Peter C. Burger MD, Professor of Pathology, Neurosurgery and Oncology, is the Director of Surgical Neuropathology at Johns Hopkins Hospital, Baltimore, USA. Over the last 35 years, Dr Burger has made a wide range of contributions to the field of neuro-oncology and is one of the world’s leading authorities on the classification and diagnosis of central nervous system tumors. He has published over 400 original papers and review articles. Their impact is evidenced by the fact that more than 100 of these have been cited at least 50 times and 38 were cited 100 times or more. He also played a key role in generating all three editions of the World Health Organization classification for CNS tumors, and influences countless pathologists and others associated in the field of neuro-oncology, through his many textbooks. An engaging speaker, he has given over 250 invited or honorary lectures worldwide. Each year he reviews over 1,500 difficult brain tumor cases sent to him in consultation. He served as chairman of the Pediatric Oncology Group pathology review committee for brain tumors from 1981-2000, and has also been involved with numerous other brain tumor groups as an expert neuropathology consultant or medical advisor.

Dr Burger is the recipient of many awards including the Award for Dedication and Distinguished Service, American Association of Neuropathologists in 2009 and the Lifetime Achievement Award from the Society for Neuro-Oncology in 2010. Dr Burger is the current Cure For Life Foundation Brain Cancer Research Visiting Academic at UNSW.

“Pathological brain tumour diagnosis: Then and now”

Abstract: For over a century, light microscopy has been the principal tool in diagnosis and grading of CNS tumours. By this approach, lesions are classified by their appearance in magnified images, recognizing that the accuracy of this subjective endeavour is modified by the experience of the pathologist, size and quality of the specimen, and the extent to which the submitted tissue is representative of the lesion as a whole. While rapid, economical, and accurate in most instances, this technique provides only a superficial view of tumours, whose complexities and variations at the molecular level are increasingly recognized. Appropriately, histopathology is now complemented by molecular methods that help classify lesions and, ideally, identify therapeutic targets. Immunohistochemistry for mutant proteins, fluorescence in situ hybridization and arrays for chromosomal abnormalities, and detailed molecular studies such as whole genome DNA sequencing for mutations and polymorphisms are employed, although there is considerable inter-laboratory variation in the availability of specific tests. In spite of these newer methods, classic histopathology remains an essential tool for categorization by providing the context in which tests are selected and interpreted. It remains to be seen if molecular cancer diagnostics, such as DNA sequencing, can replace histopathology altogether.
David DE CARLE

David de Carle MBBS FRACP, Associate Professor of Medicine (Conjoint) UNSW, was a Foundation Scholar in Medicine at UNSW from 1961 to 1966. He was an RMO then Registrar training in gastroenterology at Prince Henry and Prince of Wales Hospitals from 1967 to 1972. After 2 years as a Medical Associate (Research) working in the areas of gastrointestinal motility and oesophageal diseases at Prince Henry and Prince of Wales Hospitals he was awarded an RACP Research Scholarship to further his studies at the University of Iowa College of Medicine. On returning to Australia in 1977, he took up a position as Lecturer in Medicine at St George Clinical School, UNSW. At various times he has served as Clinical Associate Dean and Head, Department of Medicine at the Clinical School as well as Chairman, St George Hospital Department of Gastroenterology. 1999 to 2004, he was the Presiding Member of the Faculty Board, UNSW Medicine.

“The Pioneer students’ clinical experience”

Abstract: In January 1961 59 students, 20 of whom had been awarded Foundation Scholarships, enrolled in the new Faculty of Medicine at UNSW. By August of 1963 the number of students who had progressed and passed examinations in Anatomy, Physiology, Biochemistry, Medical Statistics and English was 33. Four students elected to do BSc. Med studies so 29 commenced Introductory Clinical Studies which was to be taught at Prince Henry Hospital. This marked the beginning of a very productive partnership between Medicine UNSW and what would become the Randwick Hospitals Campus. The students had very little idea of what was to expect. The course thus far had been demanding but the teachers had been enthusiastic, helpful and very friendly giving cause for optimism. The trip to Little Bay was the first of many challenges. There, the students were made most welcome. In this presentation Professor de Carle, who was one of the group, will describe their experience.
Maria CRAIG

Associate Professor Maria Craig MBBS PhD FRACP MMed(ClinEpid) is a Paediatric Endocrinologist at the Children’s Hospital at Westmead and St George Hospital, Kogarah and an NHMRC Practitioner Fellow.

Her major research focus is childhood diabetes, including the epidemiology and aetiology of the disease, with much of her research addressing the role of viruses in diabetes pathogenesis. She has over 120 peer reviewed publications, with her research funded by grants and fellowships from the NHMRC and Juvenile Diabetes Research Foundation.

She is a former President of the Australasian Paediatric Endocrine Group and co-chaired the Australian National Evidence Based Clinical Practice Guidelines for Type 1 Diabetes in Children, Adolescents and Adults.

“Autologous cord blood for prevention of type 1 diabetes”

Abstract: Regulatory T cells (Treg) have an important role in maintaining immune homeostasis. Deficiency and/or dysfunction of Tregs are observed in people with autoimmune diseases, including type 1 diabetes (T1D). Umbilical cord blood (CB) is a rich source of Tregs, which are functionally potent and may have a role in immunomodulation, particularly during intrauterine development. CB human umbilical stem cells reversed T1D in NOD mice, accompanied by reduced inflammatory infiltration within the islets. Co-culture of lymphocytes with CB from individuals with long standing T1D reversed autoimmunity, increased Tregs and led to regeneration β cells and improved glycaemic control. However, no studies in humans have examined whether CB can prevent T1D.

We are currently undertaking a pilot trial to investigate the effects of infusion of autologous CB on progression to T1D in children with multiple islet autoantibodies. Our primary hypothesis is that infusion of autologous CB will restore immune tolerance in children with islet autoimmunity and delay or prevent progression to T1D. We will screen ~800 children with a first degree relative with T1D, who have CB stored. Those with multiple autoantibodies will be staged and offered infusion of CB. This is the first time autologous CB will be used to prevent T1D in high risk individuals.
Greg CRANNEY

Greg Cranney MBBS (Hons) (UNSW), FRACP FCSANZ is the Director of Cardiology at Prince of Wales Hospital. After completing Cardiology training at Prince Henry Hospital in 1984, he spent 2 years as a National Heart Foundation Fellow studying cardiac mechanics in patients with valve disease. In 1987, he undertook a Fellowship in Cardiovascular Magnetic Resonance Imaging at UAB in Birmingham Alabama at what was then the only cardiology department in the world with a dedicated MRI system. He subsequently became the Clinical Director of Cardiac MRI at UAB. Since returning to Prince Henry and Prince of Wales Hospitals in 1991, he became Director of Echocardiography and later Director of Cardiology and Network Director of Cardiology Training, mentoring many cardiology trainees. He co-authored one of the early books on cardiac MRI and has written numerous book chapters. Current interests include assessing cardiac mechanics and valvular heart disease in patients prior to cardiac surgery or intervention.

"Opening the window to the heart"

Abstract: Advances in cardiac imaging have spearheaded the diagnosis and management of cardiovascular disease. Professor Ralph Blacket established a Cardiac Catheter Laboratory at Prince Henry Hospital in the 1960s’. Together with Dr Jean Palmer, they had been the first in Australia to perform Cardiac Catheterisation during the previous decade. Dr Michael McCredie followed with the introduction of coronary angiography and a paediatric service. Professor David Wilcken started his collaboration with Commonwealth Acoustic Laboratories in the mid 1960’s resulting in some of the first images to be obtained of the mitral valve in 1966. Since then Prince Henry and Prince of Wales Hospitals have been leaders in cardiac imaging. This presentation will highlight the journey from the early adult and paediatric cardiac catheterisation laboratories to the first cardiac ultrasound laboratory in the 1960’s, nuclear cardiology, Doppler echocardiography and transoesophageal echo in the 1980’s, cardiac MRI and colour echocardiography in the 1990s’ and now 3D echocardiography, intravascular ultrasound, intra-operative TOEs and cardiac CT. Pivotal to application of these innovations to patient care has been the close collaboration between technologists, surgeons, interventionalists and clinicians, both adult and paediatric.
Michelle Farrar is a pediatric neurologist and Director of Neuromuscular Services, Sydney Children’s Hospital and Research Fellow with the School of Women’s and Children’s Health, UNSW. She has a clinical interest in neuromuscular disorders and her research includes investigating the mechanisms and the possible prevention of neurodegeneration in spinal muscular atrophy and other inherited neuropathies. This is linked to the multidisciplinary Neuromuscular clinic (Sydney Children’s Hospital), Nerve and Muscle Clinic (POWH) and collaboration with Professor Matthew Kiernan (POWH). Significant achievements have included the establishment of axonal excitability techniques in children, providing unique insight into the evolution of postnatal human peripheral nerve function. Michelle was awarded the Australian and New Zealand Association of Neurologists Young Investigator Prize in 2010 and a PhD in 2012 for her thesis entitled “The pathophysiology of spinal muscular atrophy”.

“It’s a new tool, not a new toy: Understanding neurodegeneration in spinal muscular atrophy”

**Abstract:** Spinal muscular atrophy (SMA) is a hereditary neurodegenerative disease of motor neurons with variable severity, ranging from progressive infantile paralysis and death (Type I) to limited motor neuron loss and normal life expectancy (Type III). In contrast to the relentless decline expected across a spectrum of neurodegenerative diseases, SMA patients tend to maintain their same level of weakness over many years, some with perhaps increasing stability apparent over time. The ‘up-front’ clinical course suggests a substantial early loss of motor neurons followed by increasing stability of the surviving neurons. To gain insights into disease pathogenesis and potential adaptations, clinical, epidemiological, neurophysiological and genetic studies will be presented. Taken together, these studies have established unique pathophysiological processes that develop throughout the motor axis in SMA. These include concurrent peripheral neurodegeneration and regeneration, with central neuroplasticity and provide insight into the unique clinical course. Importantly these studies may influence future treatment strategies and enable further pathophysiological investigations among various pediatric neuropathies at disease outset.
Daniel FRIEDMAN

Dr Daniel Friedman MBBCH FRACP FCSANZ FSCCT is a VMO / Interventional Cardiologist at Prince of Wales Hospital and Eastern Heart Clinic. He has a major interest in Cardiac CT and was the founding Chair of the ANZ International Regional Committee of the Society of Cardiovascular CT, being a fellow of that Society. He has been a member of the ANZ CTCA Conjoint Committee since its inception and he sits on the Continuing Education and Recertification Committee of the Cardiac Society of Australia and New Zealand. He is the Cardiac Imaging Editor for the peer reviewed publication Heart Lung and Circulation.

“Seeing is believing”

Abstract: Cardiac CT is the new frontier in coronary artery imaging. Calcium scoring has a firmly established place in risk assessment, adding to traditional risk evaluation and, as a single test, outperforming traditional Framingham-based risk prediction models. CT angiography takes imaging a quantum leap further, accurately delineating coronary artery anatomy and enabling us to determine individual rather than population risk. The Holy Grail in coronary artery disease is considered to be the identification of vulnerable, rupture–prone plaques and recent data suggests that Cardiac CT Angiography may give us this information.
James ISBISTER

Professor James Isbister was in the foundation year (1961) of the medical faculty at UNSW and was the first UNSW medical graduate to be appointed to St Vincent’s Hospital in the year it became a UNSW teaching hospital (1968). As well as Clinical Professor of Medicine, University of Sydney he is a Clinical Professor at University of Technology and Monash University, and was recently appointed as Conjoint Professor of Medicine at UNSW. He is an Emeritus Consultant at Royal North Shore Hospital and a past Board Member of the Australian Red Cross Blood Service. Two years ago, Professor Isbister reconnected with his Alma Mater as chair of the Human Research Ethics Committee at Randwick Hospitals Campus. Current interests are research, teaching and policy development in patient blood management and transfusion medicine. He has over 150 publications and authorship of textbooks on haematology and transfusion medicine as well as contributions to major critical care textbooks. His career contributions have been acknowledged by several national and international awards.

“Should I go to the new medical school?”

Abstract: In 1961, enrolling in medicine in the new medical faculty at UNSW was an exciting time. The early days were challenging, but at the same time most enjoyable. The enthusiasm of the staff was infectious, but the teachers demanded high standards from the students. This was understandable as their reputations and that of the University were at stake. At the time there were many sceptics in the medical community that needed convincing that “Kensington Tech” could produce doctors. In this presentation, Professor Isbister will reminisce on the experiences of the early days from a student’s and early graduate’s perspective. From small beginnings the UNSW Faculty of Medicine, in conjunction with the Randwick Hospitals Campus has grown into one of the leading Australian undergraduate and postgraduate teaching and research centres in conjunction with high standards of clinical practice.

“A brief historical background of human genetics at UNSW and POWH”

Abstract: UNSW Medicine and Prince of Wales Hospital (POWH) can be proud of their role in leading the way in the practice, research and teaching of human genetics. Professor Bob Walsh, previously director of the NSW Red Cross Blood Service, was the Foundation Professor of Human Genetics at UNSW and subsequently Dean of Medicine. He established one of the first undergraduate human genetics courses in Australia. The course was indeed ground-breaking in that it had a remarkably comprehensive practical component that exposed medical students to the basic principles of laboratory and clinical cytogenetics. Dr Reg Lam Po Tang, a haematologist at POWH, was director of Sydney’s leading cytogenetics department. History has demonstrated how fortunate we were to have such forward thinking leaders in this important field of laboratory and clinical medicine.
Nigel JEPSON

Dr Nigel Jepson BMed Sci MBBS FRACP FCSANZ completed his medical studies at University of Tasmania in 1990 and undertook post-graduate research and Clinical Cardiology Fellowship training at the Harefield Hospital in London, UK. Dr Jepson, an active procedural cardiologist, is the Director of the Coronary Care Unit at Prince of Wales Hospital (POWH), Medical Director of the Cardiac Catheterisation Laboratories at the Eastern Heart Clinic (EHC) and Clinical Director of the Clinical Trials Unit at POWH. He is also responsible for medical student training and education in cardiovascular medicine at POWH and is convener of an unique annual Australian teaching program in cardiac catheterisation for first year advanced trainees in Cardiology He is the NSW Representative on the Cardiac Society of Australia and New Zealand (CSANZ) board, secretary of the NSW Regional Committee of CSANZ, member of ANZET organising committee and NSW Representative of the Interventional Council of CSANZ.

“Bio-absorbable stents and the Holy Grail”

Abstract: There have been major advances in the treatment of coronary disease over the last 30 years with the development of truly minimally invasive, key-hole techniques termed percutaneous coronary intervention (PCI). From its humble beginnings in 1977 with the use of a balloon catheter introduced to the narrowed coronary artery, the technique has evolved rapidly and dramatically. The procedure was refined by the 1990’s with the routine addition of a metallic stent at the site of narrowing after balloon expansion. These mesh-like stents remain in the coronary artery permanently and by providing a scaffold to an otherwise diseased artery, they significantly improve on the results of balloon alone. Given this excellent performance, stenting remains the default PCI strategy in the treatment of coronary blockages. The final chapter in this revolution is the move to fully bioabsorbable stents. In many ways, this approach represents the “Holy Grail” of stent technology. Despite the excellence performance and utility of metallic stents, they are permanent “foreign” implants and require long term double blood thinners. The advantage of a novel bio-absorbable stent lies in its ability to offer all the early advantages of a metallic stent (scaffolding, improved blood flow and local drug delivery) but after 12-24 months naturally erodes and absorbs away leaving a healthy artery with no residual metal lining. The advantages are clearly substantial—les less need for ongoing blood thinner therapy. Separately, and probably more importantly, the absence of a metallic casing allows positive arterial healing and elastic function over months and years from implantation. At EHC at POWH, we have used this new technology as part of an international collaborative trial (the only NSW site and one of a handful in Australasia) confirming device efficacy and safety. Consistent with global results, our experience having treated 100+ patients is highly exciting and very encouraging. We have one of the largest global clinical experiences with this device and anticipate the bioabsorbable stent scaffold will become the predominant PCI tool in the treatment of blocked heart arteries in the coming years.
Nadine KASPARIAN

Dr Nadine Kasparian is an NHMRC Career Development Fellow and Senior Lecturer in Paediatrics at UNSW. She is also Head of Psychological Care at the Heart Centre for Children, The Children’s Hospital at Westmead and an Executive Member of the Australian Centre for Perinatal Science. Over the past 10 years, Nadine’s research has focused on developing an in-depth understanding of the experiences and needs of infants, children, young people and families at all stages of medical illness - from diagnosis, treatment and hospitalisation, through to important life transitions and bereavement. Nadine and her team have worked extensively with people affected by cancer (particularly melanoma, breast cancer and ovarian cancer), and at present, Nadine’s program is heavily focused on the development of innovative models for supporting children and families affected by heart disease. In 2011, Nadine’s work was acknowledged by the International Psycho-Oncology Society with the Hiroomi Kawano New Investigator Award for outstanding contributions to research.

“To cure and to care: Developing models of psychological care in paediatric heart disease”

Abstract: Over 3,000 Australian children are diagnosed with some form of heart disease each year. Childhood heart disease is the leading cause of death in infants and contributes more than 9,000 Disability Adjusted Life Years (DALYs) to the total burden of disease in Australia. While we celebrate the medical advances that have led to better outcomes for children with heart disease, more needs to be done to improve their quantity and quality of life. Today, we recognise that morbidity associated with paediatric illness is one of our greatest challenges, and that caring for our young patients requires attention not only to their physical health, but also to their emotional health and well-being. In 2010, we established Australia’s first integrated research program and clinical service dedicated to the psychological care of children with heart disease, and their families and clinical teams. Based at the Heart Centre for Children, the goals of this program are: (1) Discovery of the mechanisms which contribute to psychological risk and resilience in children and families; (2) Development and trial of novel prevention and early intervention services; and (3) Rapid translation of research outcomes into clinical benefit. This presentation will provide a snapshot of the research studies and clinical initiatives that comprise this medical psychology program, with a particular focus on new frontiers and future directions.
Bette LIU

Dr Bette Liu is a Senior Lecturer in the School of Public Health and Community Medicine at UNSW, NHMRC Post-doctoral Fellow and the Science Head of Research Assets at the Sax Institute. She is a medically trained epidemiologist with extensive experience in the design, conduct and analysis of large-scale epidemiological studies and record linkage studies. From 2004 to 2008 she worked in the UK establishing the 500,000 person UK Biobank resource and developing the UK Million Women Study. She now oversees The Sax Institute's 45 and Up Study, a large scale collaborative resource involving 250,000 adults in NSW.

“Big data – How large scale prospective studies can help to set priorities for cancer prevention and treatment”

Abstract: We’d all like to live long healthy lives and reduce our risk of developing conditions such as cancer. But to do this, we need to understand how much one’s behaviour and lifestyle, the environment we live in and our genetic make-up contribute to developing disease. From a public health perspective, we also need to know which of these factors will have the biggest adverse impact on disease, as this will guide priorities for prevention policies. Accurately detecting and quantifying risk factors for diseases such as cancer can be challenging, especially when the effects are modest and may interact with one another. Often such studies require thousands of individuals with and without disease. To better enable this type of research, a number of large scale collaborative epidemiological resources have been established. This presentation will discuss some of these resources and how they can be used to better inform cancer prevention and treatment strategies.
Glenn MARSHALL  
Professor Glenn Marshall is a Paediatric Haematologist and Oncologist, Director of the  
Kids Cancer Centre at Sydney Children’s Hospital and Head of  
Translational Research and Head of the Molecular Carcinogenesis  
Program at the Children’s Cancer Institute Australia. He is also  
The Director of a major new translational child cancer research  
network across NSW, the Kids Cancer Alliance (KCA).  
Professor Marshall’s primary pre-clinical research interests  
include investigating the mechanisms by which normal embryonal  
cells become cancerous, and improving the effectiveness of  
non-cytotoxic anticancer therapy in childhood cancer. He has a  
longstanding clinical and translational research focus on relapse detection in childhood leukaemia.

“Individualising cancer control for children”  
Abstract: Cancer is still the commonest disease causing death in childhood. While cure  
rates are 70-80% overall, therapy has severe short and longterm side-effects which are  
unpredictable. Moreover, it is becoming more apparent that the almost infinite diversity  
and mutability of cancer cells will require personalisation of therapy in order to achieve  
a cure for all patients. Moreover, matching patient germline diversity to drug side-effect  
prediction, may allow preventative strategies to avoid the side-effect burden of successful  
therapy in the growing child. Our group has used minimal residual disease (MRD) testing  
in children with the commonest form of child cancer, acute lymphoblastic leukaemia  
(ALL) to identify those children undergoing therapy who are at highest risk of relapse.  
We have gone from concept to development, then application in a large prospective  
international clinical trial using MRD testing, to prove that early detection and intensified  
chemotherapy can double the survival rate of high risk ALL patients. We have also recently  
shown that some cancer-associated gene changes can be synthetically lethal, conferring  
susceptibility to specific therapeutic agents. Our automated Drug Discovery program has  
identified several targeted lead compounds with application in ALL, neuroblastoma and  
brain tumours. With the creation of the Kids Cancer Alliance in NSW we have developed  
the largest early phase clinical trial program for children in Australia, which is poised to  
trial individualised therapy for high risk patients, tailoring the treatment choices in real- 
time to the genetic make-up of the cancer. Lastly, improved understanding of the origins  
of embryonal child cancer has, for the first time, suggested the possibility of controlling  
child cancer by preventive strategies.
Jenny NAMKOONG

Jenny Namkoong is a fifth year UNSW medical student and President of the UNSW student medical society Medsoc. Having been involved with student life since first year as MedCamp Director, Social Director, Year Rep, and with larger organisations such as NSW Medical Students’ Society and the Australian Medical Students’ Association, Jenny is the student voice in the UNSW Medical Curriculum Development Committee, Dean’s Circle and to the Australian Medical Council. Her aims this year with MedSoc have been to ensure a sustainable business model starting with incorporating and attaining insurance, uniting the different student groups within MedSoc, namely the Rural Clinical Schools and Special Interest Groups, and increasing alumni connection with UNSW.

Her love for MedSoc stems from the enormous value she believes it offers students in terms of growth, leadership and development to be better doctors. With her peers she enjoys to dance, particularly in stage productions including MedShow and MedRevue, and her interests lie in creating efficient health systems, cardiology, and leadership in medicine.

“A truth universally acknowledged”

**Abstract**: Exploring the truths about medical students over the years and their hospital placement experiences. From statistics to surveys, we explore the student perception of Randwick hospitals, the strengths, the weaknesses, the past and the vision for the future. What the 50th anniversary means to us, as students, who have only been around for the last handful of years.
Kerry-Anne RYE

Kerry-Anne Rye was appointed as a Professor and Head of the Lipid Research Group in UNSW Centre for Vascular Research at the beginning of 2013. Professor Rye’s main areas of expertise relate to high density lipoprotein (HDL) metabolism and function and their role in preventing cardiovascular disease. She has published more than 160 papers and numerous book chapters on these topics and co-authored an HDL handbook for clinicians, which has sold more than 100,000 copies. Professor Rye currently serves as an Associate Editor of the Journal of Lipid Research, as Chief Editor of HDL Forum, as an Editorial Board Member of Arteriosclerosis Thrombosis and Vascular Biology and has recently been appointed as interim Senior Associate Editor of the Journal of the American Heart Association. Professor Rye is the Immediate Past Chair of the American Heart Association Arteriosclerosis Thrombosis and Vascular Biology (ATVB) Council Women’s Leadership Committee, is a member of the ATVB Leadership Committee, and runs a mentoring program for early career ATVB Council members. She is currently the Vice-Chair (ATVB nominee) of the American Heart Association Scientific Sessions Program Committee.

“What is the evidence that high density lipoproteins are beneficial?”

Abstract: Multiple human population studies have established that a high blood concentration of high density lipoprotein (HDL) or “good” cholesterol reduces the risk of developing heart disease. HDL have a number of functions that can potentially protect against heart disease. These include the removal of excess cholesterol from cells, including those in the artery wall, preventing the oxidation of low density lipoproteins or “bad” cholesterol, inhibiting inflammation in blood vessels, inhibiting the formation of blood clots in arteries, repairing damaged blood vessels, and improving diabetes. However, large clinical outcome trials using therapies that increase HDL levels have not so far reduced deaths from heart disease. This is most likely because of adverse effects of the drugs that are unrelated to their HDL-raising capacity, poor trial design and the use of drugs that only increase HDL levels modestly. More recent, large-scale clinical outcome trials with newer, more effective HDL raising agents that have diverse mechanisms of action are currently underway. These trials are likely to provide a more definitive answer as to whether raising HDL levels is beneficial.
Dr Shane Thomas leads the Redox Cell Signalling Group at the Centre for Vascular (CVR) and is Senior Lecturer in the Department of Pathology at the School of Medical Sciences at UNSW. He received his PhD in 1999 from the University of Sydney and undertook post-doctoral studies at the Whitaker Cardiovascular Institute, Boston University as an NHMRC CJ Martin Fellow working on the reduction and oxidation (redox) reactions and cell signalling pathways underlying endothelial dysfunction during cardiovascular disease. In 2004, he returned to Australia where he established an independent research group at CVR, UNSW as an NHMRC RD Wright Career Development Award Fellow. His research group currently focuses on defining the oxidative reactions and molecular signalling events driving inflammatory cardiovascular disease and the development of new treatments aimed at targeting deleterious oxidative events during disease.

“Understanding the role of oxidative stress in cardiovascular disease”

Abstract: Atherosclerosis and its clinical presentations, myocardial infarction and stroke, are a major source of morbidity and mortality. Chronic inflammation is intimately involved at all stages of disease and current interest focuses on identifying the inflammatory mediators involved and defining their mechanisms of action. Considerable clinical and experimental evidence implicate a multi-faceted role for myeloperoxidase (MPO), an oxidative stress enzyme released by activated leukocytes. Elevated levels of circulating MPO are a feature of cardiovascular disease patient’s and represents an independent predictor of the prevalence of coronary artery disease and clinical event risk in patients with acute coronary syndrome. Recent studies highlight that circulating extracellular MPO rapidly exits the circulation by transcytosing across the vascular endothelium resulting in its accumulation within the sub-endothelial or intimal space of arteries where MPO catalyses local oxidative reactions to promote vascular dysfunction. This presentation will discuss the oxidative reactions and molecular signalling mechanisms by which circulating, extracellular MPO promotes disease and detail therapeutic strategies aimed at targeting MPO during inflammatory cardiovascular disease.
Robyn WARD AM

Professor Robyn Ward AM MBBS, PhD UNSW, FRACP is the Clinical Associate Dean Prince of Wales Clinical School, UNSW and the Director of Cancer Centre at Prince of Wales Hospital (POWH). She is a specialist medical oncologist at POWH and holds a PhD in medicine. She leads the Adult Cancer Program in the Lowy Cancer Research Centre at UNSW, which is focused on the application of recent advances in molecular biology to the clinical problem of cancer.

Professor Ward was awarded the Commonwealth Health Minister’s Award for Excellence in Health and Medical Research in 2004, and the Premiers Award for Outstanding Cancer Researcher in 2007. In 2013 she was made a member of the Order of Australia (AM). Amongst other roles, Professor Ward serves as member of the Commonwealth’s Pharmaceutical Benefits Advisory Committee and in 2009 she was appointed the Chair of the Medical Services Advisory Committee.

“Unzipping genomes and the public purse – science and society collide”

Abstract: In 2001 the first working draft of the human genome sequence was published at a cost of over $3 billion. It was claimed that the availability of sequence information would lead to a new era of personalised health care. More than a decade has passed, the health gains have been minimal, but society is still paying for the promise. Why??
Hugh WOLFENDEN

Dr Hugh Wolfenden MBBS FRACS is a Senior Cardiothoracic Surgeon at Prince of Wales and Liverpool Hospitals. He undertook training at Prince Henry and Prince of Wales Hospitals and has been a Consultant at Prince of Wales since 1992. His interests are in minimally invasive thoracic, valve and coronary artery surgery and specialises in mitral valve repair and atrial fibrillation surgery. He was involved in introduction of the Cardiac Surgical Database to NSW and nationally.

“Cardiac Surgery: You’re never too old”

Abstract: Cardiac surgery has changed over the last 30 years from operations done on otherwise healthy 50-60 year olds needing valve or coronary surgery, to often combined valve/coronary procedures on patients in their 70’s and 80’s with multiple co-morbidities. Mortality and morbidity has declined whilst patient risk factors have increased, such that cardiac surgery is common in patients in their late 80’s and even into early 90’s. This is in part due to the team work that has evolved between cardiology, cardiac surgery, anaesthesia, and intensive care. This co-operation is becoming more formalised in the concept of the “heart team”, where individual patients are reviewed by clinicians, interventionalists, surgeons, anaesthetists, and intensivists, to reach a decision on what is best for that case. Deciding between medical therapy or catheter based therapy (PCI, TAVI) or surgery (CABG, AVR) then becomes a more informed decision for the person involved. Co-located units, such as Prince of Wales, are ideal sites for this. Technology is playing a major but unfortunately expensive role in the management of cardiac disease. Catheter based aortic valves cost 6 times that of a conventional valve. The placement of these valves is ideally performed in a hybrid operating suite which cost about $2 million to install. These costs lead to conflict with health care funders as it does in other areas of high tech high cost medicine, as governments try to ration health care to their limited budgets.
Official Guest Speakers and Session Chairs

Frederick HILMER AO

Professor Frederick G Hilmer AO (LLB Syd, LLM Pennsylvania, MBA Wharton) was appointed President and Vice-Chancellor of UNSW in 2006. Prior to taking up this position, Professor Hilmer was CEO, John Fairfax Holdings Limited from 1998 - 2005. Before joining Fairfax, he was Dean and Director of the Australian Graduate School of Management at UNSW and a Director of Port Jackson Partners Limited. Prior to this, Professor Hilmer was a director of McKinsey & Company, responsible for managing the Australian practice.

Professor Hilmer was appointed Chair of the Group of Eight (Go8), the coalition of Australia’s leading research universities, in 2011, and Chair of U21, the global network of research-intensive universities, in 2013.

Terry CLOUT

Terry Clout is the Chief Executive of South Eastern Sydney Local Health District (SESLHD), taking up the position in 2011, having been Chief Executive of South Eastern Sydney Illawarra Area Health Service (SESIAHS) since 2007. Prior to these appointments Terry was Chief Executive Officer of a number of Area Health Services (AHS) including, Hunter New England, Mid North Coast, Northern Sydney Central Coast and Illawarra.

Terry is an experienced Senior Health Administrator, with 27 years with NSW Health in roles including Director Operations and Deputy CEO of the former Illawarra AHS, Director of Corporate Services South Western Sydney AHS, Director of Health Services Implementation, Senior Planner and Senior Industrial Officer at NSW Department of Health.

Terry believes passionately that the values of the leaders of an organisation, over time, create the culture of that organisation.
Roger ALLAN

Associate Professor Roger Allan MBBS (Hons) UNSW FRACP, FCSANZ, FACC is a Senior staff specialist at Prince of Wales Hospital (POWH), Interventionalist at Eastern Heart Clinic and Sutherland Heart Clinic and Associate Professor Medicine UNSW. He graduated from UNSW with honours in 1974 and underwent cardiac training at the Prince of Wales and Prince Henry Hospitals. After researching in London for 3 years he returned to a staff specialist position in 1982 and continues in that role. His expertise is in coronary angioplasty, valve dilatation, cardiac device implantation and arrhythmia management. He is a designated aviation medicine examiner and participates in committees for the Departments of Health in NSW and Federally, and the National Heart Foundation where he is a director. He is the current Executive Clinical Director of the Northern Sector of the Local Heath District.

Terry CAMPBELL AM

Professor Terry Campbell AM BSc (Med) MBBS MD UNSW DPhil Oxon FRACP FACC is Head of the Department of Medicine, St Vincent’s Hospital and the Senior Associate Dean, UNSW Medicine. He is Past President of the Cardiac Society of Australia and New Zealand and served as the Chair of the Therapeutics Advisory Committee of the Royal Australian College of Physicians from 1996 to 2000. He also served as a Director of the New South Wales Division of the National Heart Foundation and was the Honorary Secretary/Treasurer of the XIV World Congress of Cardiology in 2002.

Professor Campbell obtained his BSc (Med) MBBS from UNSW, undertaking clinical student training at Prince Henry Hospital, Royal Hospital for Women and Sydney Children’s Hospital. He completed postgraduate training in Internal Medicine and Cardiology at St Vincent’s Hospital and completed a Nuffield Fellowship in Cardiac Pharmacology at Oxford University. His extensive research work has encompassed both basic laboratory research and clinical cardiology. His laboratory research includes cardiac electrophysiology and pharmacology, using patch-clamp methods to study individual cardiac ion channels and their modulation by drugs and more recently, their structure-function relationships. Clinical research activities have been related to drug therapy for arrhythmias, heart failure and ischaemic heart disease.
Adam JAFFÉ

Professor Adam Jaffé BSc (Hons) MBBS MD FRCP FRCPCH FRACP is the John Beveridge Professor of Paediatrics, Head of Discipline of Paediatrics, School of Women’s and Children’s Health at UNSW and Associate Director of Research for the Sydney Children’s Hospitals Network (Randwick). He is also a Paediatric Respiratory clinician at the Sydney Children’s Hospital, Randwick. Professor Jaffé trained partly in Sydney, but mostly in London and gained his thesis in Gene Therapy for Children with Cystic Fibrosis from Imperial College, University of London.

He was appointed to Consultant in Respiratory Research at Great Ormond Street Hospital for Children, London and headed up Respiratory Medicine Research at the Institute of Child Health, London. His research career centres around translational research specifically aimed at improving child health outcomes. His research interests lie in the areas of cystic fibrosis, empyema, asthma, childhood pneumonia and rare “orphan” lung diseases.
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Thank You

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**UNSW Medicine**
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**Eastern Heart Clinic**
**Prince of Wales Staff Specialist ROPP Committee**
**Sydney Children’s Hospital**

The Committee thanks all those who have been involved in the provision and collation of the many archive materials either on display or included in event materials. Special thanks to Prince of Wales Hospital for provision of images and materials for display; UNSW Archives for provision of images and the Prince Henry Hospital Museum and the Museum of Human Disease, UNSW School of Medical Sciences, for the provision of equipment for display.
If the elimination of suffering were the measure of greatness, there’d be no Australian greater than Howard Florey. He and his team, in their painstaking development of penicillin, are testimony to the power of alliance between medical scientists and clinicians – hence our insignia, ‘penned’ in Howard Florey’s hand.

We thank Professor Charles Florey for providing examples of his father’s handwriting.

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