Developing a Career in Academic Surgery Course

Monday 3 May 2010
Perth Convention Exhibition Centre

Proudly sponsored by

The Association for Academic Surgery in partnership with the RACS Section of Academic Surgery
Developing a Career in Academic Surgery

DCAS Course Organising Committee

Co-chair:
Professor John Windsor, RACS Section of Academic Surgery
Professor Scott LeMaire, Association for Academic Surgery

Course Convener:
Mr Richard Hanney

Committee Members:
Professor Andre van Rij, RACS Section of Academic Surgery
Associate Professor Andrew Hill, RACS Section of Academic Surgery
Mr Richard Martin, Younger Fellows Committee
Associate Professor Richard Page, Younger Fellows Committee
Dr Greg O’Grady, Royal Australasian College of Surgeons’ Trainees’ Association
Dr Matthew Peters, Royal Australasian College of Surgeons’ Trainees’ Association
Ms Liz Carr, New Zealand Medical Students’ Association
Mr Ross Roberts-Thomson, Australian Medical Students’ Association
Ms Nicola Robinson, RACS Section of Academic Surgery
Professor Julian Smith, RACS Section of Academic Surgery

Course Organiser:
Ms Caroline Handley, RACS Conferences & Events Department

Final Program

7:00am Convene and breakfast
River View Room 4

7:15am Welcome and introduction
Ian Gough, RACS President
Andre van Rij, Chair
RACS Section of Academic Surgery

Session 1 Starting and planning your research career
River View Room 4

Chair: John Windsor and Scott LeMaire

7:30am Why every surgeon can and should be an academic surgeon
Guy Maddern

7:50am Where do good research ideas come from?
John McCall

8:10am How to design a study to get an answer: types of research
Malcolm Brock

8:30am What makes surgical research ethical?
Andrea Hayes-Jordan

- History and applicability
- Timing and structuring applications

Jane Young

9:00am How to integrate clinical and research interests into a rewarding academic program
Daniel Albo

9:20am Panel discussion and questions from the floor
Moderators and Speakers

9:30am Morning tea River View Room 4 Foyer
**Session 2**  
**Preparing and presenting your work**  
*River View Room 4*  
Chair: Noel Tait and Malcolm Brock

9:50am  
Design, power and statistics  
*Julie Ann Sosa*

10:20am  
Delivering an effective research presentation  
*Kevin Staveley-O’Carroll*

10:50am  
Submiting and revising your manuscript including abstracts  
*Melina Kibbe*

11:20am  
Panel discussion and questions from the floor  
*Moderators and Speakers*

11:50am  
**Keynote Speaker: Fiona Wood**  
The highs and lows of a successful research career

12:20pm  
**Lunch with the faculty and small discussion groups**  
*Meeting Room 8*

**Session 3**  
**Concurrent Sessions**

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Chair: Susan Neuhaus and Kevin Staveley-O’Carroll  
1:00pm  
Building a career pathway: opportunities, obstacles and getting past them  
*Nipun Merchant, Scott LeMaire, Peter Gilling and Michael Solomon*

1:50pm  
Private practice and research  
*Brian Owler*

2:10pm  
Why a trainee should consider doing fulltime surgical research  
*Vanessa Blair*

2:30pm  
Panel discussion

Chair: John Fletcher and Melina Kibbe  
1:00pm  
Designing a clinical trial: things to think about  
*David Watson*

1:20pm  
Creating and managing a clinical database  
*Garett Smith*

1:40pm  
Novel, clinically relevant quality of life and cost-effectiveness research  
*Julie Ann Sosa*

2:00pm  
Finding the money for research  
*Jonathan Golledge*

2:20pm  
Panel discussion

Chair: Andrew Hill and Andrea Hayes-Jordan  
1:00pm  
Study design workshop to brainstorm current issues - attendees to bring current research and study challenges for discussion  
*John Windsor, Guy Maddern, Stan Sidhu, Malcolm Brock, Daniel Albo and Jane Young*

2:40pm  
**Afternoon tea**  
*River View Room 4 Foyer*

**Session 4**  
**Planning a sustainable career**  
*River View Room 4*  
Chair: Mark Smithers and Daniel Albo

3:00pm  
Choosing a mentor and project, fellowship in USA and USMLE  
*Cuong Duong*

3:20pm  
How do you fit it in: work-life balance  
*Andrew Hill*

3:40pm  
Future of academic surgery  
*John Windsor*

4:00pm  
Close

4:30pm  
Annual Scientific Congress Convocation and Syme Oration followed by Welcome Cocktail Reception
Association for Academic Surgery Invited Speakers

Daniel Albo, MD, PhD

Dr Albo is the Chief of the Division of Surgical Oncology and the Director of the Colorectal Cancer Center at the Baylor College of Medicine in Houston, Texas. His clinical expertise is in gastrointestinal oncology, with emphasis on minimally invasive approaches to colorectal and hepatobiliary malignancies. He is the Director of the Minimally Invasive Colorectal Cancer Program at Baylor. His research focuses on elucidating the molecular mechanisms of tumor cell invasion and metastasis in colorectal cancer. His work has resulted in over 100 publications, multiple book chapters and several grants. He serves as an Associate Editor for the Journal of Surgical Research. He has served the Association for Academic Surgery as a Program Committee member, Councilor, Recorder, Program Committee Chair and President-Elect. He currently serves as the President and Chair of the Nominating Committee for the AAS. Dr Albo lists his family as his most significant accomplishment in life, with his lovely wife of eighteen years, Luisa, and his two beautiful children, Camila and Nicolas.

Malcolm V. Brock, MD

Malcolm V. Brock, MD, a former Rhodes Scholar, graduate of the Johns Hopkins University School of Medicine, the Johns Hopkins General Surgical residency program and the Johns Hopkins fellowship in Cardiothoracic Surgery, is a specialist in thoracic oncology, and an Associate Professor of Surgery and Oncology at Johns Hopkins School of Medicine. Board-certified in General as well as Thoracic Surgery, Dr Brock is a surgeon who conducts cancer research at the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins specializing in bringing innovative basic, bench top research to the clinic and to the bedside. His main interests are in developing novel molecular biomarkers for solid tumors that can help clinicians diagnose cancer earlier and treat it more effectively. Recently, his laboratory utilized a basic research DNA technique in the clinic to predict patients who will develop recurrent lung cancer even after successful surgery, and to predict patients with esophageal cancer who will be sensitive to certain chemotherapeutic drugs. This work was recently recognized for publication in the New England Journal of Medicine. Dr Brock has published over 70 original research papers as well as numerous book chapters and review articles, has presented often at national and international conferences, has been the recipient of research funding from the U.S. National Institutes of Health (NIH), the Thoracic Surgery Foundation for Research and Education, the American College of Surgery Oncology Group as well as the Society of Surgical Oncology, and has been asked to serve as an expert committee member in federal agencies including the NIH and the FDA. He recently celebrated his 20th wedding anniversary and has 3 daughters aged 14, 12 and 10 years old.

Andrea Hayes-Jordan, MD

Dr Hayes-Jordan is in charge of the pediatric surgical oncology section at University of Texas- MD Anderson Cancer Center. She is a surgeon scientist who has a funded translational research laboratory in pulmonary metastasis in Ewing’s sarcoma and does clinical research as principal investigator of phase 1 trial, investigator initiated, in cytoreductive surgery and hyperthermic peritoneal perfusion (HIPEC) in children with ‘carcinomatosis’ using Cisplatin. She was the first surgeon in North America to do this procedure in children.

In her research laboratory, she has developed a model of spontaneous pulmonary metastasis by using mice to xenograft human Ewing’s sarcoma. In this model she is investigating novel therapeutics such as mesenchymal stem cell treatment, of pulmonary metastasis. In her clinical research she has recently closed the phase 1 trial of HIPEC in children and is embarking on the phase 2 trial. In this trial patients with refractory sarcomas such as desmoplastic small round cell tumor, liposarcoma and other rare tumors with extensive abdominal disease such as Wilms’ tumor undergo and extensive complete resection of all tumors (can be dozens to hundreds of small tumors in the abdomen) followed by the delivery of Cisplatin at 100mg/M2 for 90 minutes.

She is also the surgical principal investigator of a national Children’s Oncology Group (COG) non-rhabdomyosarcoma international trial and a low risk, rhabdomyosarcoma trial. She has written book chapters and reviews on soft tissue sarcoma in children and maintains a busy surgical practice of approximately 425 cases per year.
Melina R. Kibbe, MD, RVT, FACS

Dr Kibbe is an Associate Professor of Surgery at the Northwestern University Feinberg School of Medicine, Division of Vascular Surgery. She is also Co-chief of the Section of Vascular Surgery and Director of the Vascular Laboratory at the Jesse Brown Veterans Affairs Medical Center. She received her MD degree from the University of Chicago in 1994, completed her general surgery residency at the University of Pittsburgh in 2002, and vascular surgery fellowship at Northwestern University in 2003. Dr Kibbe is board certified in both General Surgery and Vascular Surgery. She received her RVT certification in 2003 and RPVI certification in 2007.

Dr Kibbe’s clinical efforts focus on open and endovascular surgery, with a particular interest on carotid and peripheral arterial endovascular interventions. Her research interests focus on nitric oxide vascular biology. Specifically, she is studying how nitric oxide inhibits neointimal hyperplasia by focusing on the role of nitric oxide in regulating the cell cycle, the ubiquitin-proteasome pathway, apoptosis and reactive oxygen species. She is also developing and evaluating nitric oxide-based pharmacological and bioengineering approaches to inhibit neointimal hyperplasia following vascular interventions, including bypass grafting and peripheral angioplasty/stenting. For her research she has received funds from the National Institutes of Health, American Heart Association, Department of Veterans Affairs, American Medical Association, and the American College of Surgeons, among others. Her research was recently recognized by President Obama with the Presidential Early Career Award for Scientists and Engineers for which she traveled to Washington DC.

She serves as Associate Editor of the Journal of Surgical Research, is a reviewer for several general and vascular surgery journals, and has published over 70 peer-reviewed manuscripts. Dr Kibbe is the Recorder and Chair of the Program Committee for the Association for Academic Surgery.

Scott LeMaire, MD

Scott A. LeMaire, MD is Professor and Director of Research in the Division of Cardiothoracic Surgery, Michael E. DeBakey Department of Surgery at Baylor College of Medicine, and an attending physician on the Cardiovascular Surgery Service of the Texas Heart Institute at St. Luke’s Episcopal Hospital in Houston, Texas. Dr LeMaire graduated from Northwestern University Medical School in 1992 and completed residency training in cardiothoracic surgery at Baylor College of Medicine in 1999. His primary clinical interest focuses on the management of patients with thoracic aortic disease, with a particular emphasis on treatment of aortic dissection and thoracoabdominal aortic aneurysms. His corresponding research program focuses on organ protection during aortic surgery, genetic aspects of thoracic aortic disease, and molecular mechanisms of aortic degeneration. He has received funding from the National Institutes of Health and the Thoracic Surgery Foundation for Research and Education for his research studying the role of matrix metalloproteinases in aortic dissection. Dr LeMaire is currently serving as President-Elect of the Association for Academic Surgery. He has been married for 17 years and has two children.

Nipun Merchant, MD

Dr Nipun Merchant is currently Associate Professor in the Division of Surgical Oncology at Vanderbilt University Medical Center. He received his undergraduate degree from New York University and his medical degree from State University of New York where he graduated Cum Laude and was elected to the Alpha Omega Alpha Honor Society. He completed his General Surgery residency at Temple University Hospital and then completed a fellowship in Surgical Oncology at Memorial Sloan-Kettering Cancer Center in New York.

Dr Merchant’s clinical and research interests are in gastrointestinal malignancies. He has an active basic science research laboratory investigating epidermal growth factor receptor and Src kinase signaling in pancreas cancer. He is actively involved in clinical and translational research with specific interests in proteomic and genomic markers of early detection and therapeutic response and is the PI of several clinical trials. He has active research grants funded by the NIH and by industry support.

Dr Merchant is a member of numerous prestigious scientific and surgical societies and currently serves as a Governing Board member and the Chair of the GI Steering Committee of the National Cancer Institute, is a Member of the Commission on Cancer, and the National Comprehensive Cancer Network (NCCN) Pancreatic Adenocarcinoma Panel Member, and is the State Chair of the Commission on Cancer of the American College of Surgeons for the State of Tennessee. He is on the Editorial Board of the American Journal of Translational Research Colorectal Cancer: Index and Reviews, and Journal of Surgical Research.
Julie Ann Sosa, MA, MD, FACS

Julie Ann Sosa, MA, MD, FACS is Associate Professor of Surgery in the Sections of Surgical Oncology and Endocrine Surgery at the Yale School of Medicine. Her clinical interest is in endocrine surgery, with a focus in thyroid cancer. Her research interests are in health services and clinical trials. She is widely published in outcomes and cost-effectiveness analysis. At Yale, she is the principal investigator for six international trials using novel drug therapies for advanced thyroid cancer and adrenocortical carcinoma. She is on the editorial boards of the Journal of Clinical Endocrinology and Metabolism and the Journal of Thyroid Research. Dr Sosa is the recipient of grants from the Paget Foundation, the Association for Academic Surgery, the Donaghue Foundation, the American Geriatrics Association/Hartford Foundation, and the Pepper Center at Yale. Dr Sosa was born in Montreal and raised in upstate New York. She received her AB at Princeton University, her MA at the University of Oxford, and her MD at Johns Hopkins University, where she completed the Halsted residency program and a fellowship in surgical oncology while an assistant chief of service and instructor.

Kevin Staveley-O’Carroll, MD, PhD

Kevin Staveley-O’Carroll, MD, PhD, is Chief of Surgical Oncology and Associate Professor of Surgery and Microbiology/Immunology at the Penn State University College of Medicine. He received his BS degree in Chemistry from the University of Notre Dame and his Medical Degree from the University of Oklahoma. He subsequently completed his surgical residency and a fellowship in surgical oncology at the Johns Hopkins Hospital, and received a PhD in Pharmacology and Molecular Biology from the Johns Hopkins School of Medicine.

He accepted a faculty appointment at Penn State University in 2000. He is the Director of the Penn State Cancer Institute’s Program for Liver, Pancreas, and Foregut Tumors; as such, he oversees a multidisciplinary clinical program, directs clinical, translational, and basic science research, and is the Director of the hepatobiliary fellowship. His research effort, focusing on the immune system’s response to cancer, is funded through the National Cancer Institute/National Institute of Health. Dr Staveley-O’Carroll is the immediate past President of the Association for Academic Surgery, the largest collection of academic surgeons in the world. He has 4 children ages 10, 14, 16, and 18.

RACS Section of Academic Surgery Invited Speakers and Program Contributors

Vanessa Blair, FRACS

Dr Vanessa Blair is currently working as a Breast and Endocrine Fellow at Auckland City Hospital, having passed the Part 2 examination in 2009. Research was never part of her masterplan, however after her first year of advanced training, an opportunity arose to do full-time research for a year in hereditary gastric cancer. This snowballed into what she refers to as ‘my accidental PhD’. Research highlights to date include 6 papers, 2 book chapters and being invited to talk at 3 international conferences. Vanessa has two young children and completed her thesis from her home office while on maternity leave (with help from supernanny).

Cuong Duong, MB BS, PhD, FRACS

- Graduate from Melbourne University medical course with honours
- General Surgical training based at Royal Melbourne Hospital
- PhD candidature through Melbourne University with thesis focusing on the role of PET and molecular profiling in oesophageal cancer
- Surgical Oncology clinical fellowship at the Memorial Sloan Kettering Cancer Centre, New York
- Minimally invasive upper GI fellowship at the Princess Alexandra Hospital, Brisbane
- Consultant surgeon at the Peter MacCallum Cancer Centre and Western/Sunshine Hospital, Melbourne
John Fletcher, FRACS

Professor John Fletcher is Chairman of the Division of Surgery at Westmead Hospital and Associate Dean of Surgical Sciences at the University of Sydney. He is Director of Vascular Surgery, Sydney West Area Health Service, Director of the Westmead Vascular Biology Research Centre and the Westmead Vascular Laboratory.

Professor Fletcher’s clinical interests are the endovascular management of aortic aneurysm, the non-invasive investigation of vascular disease, and the prevention and treatment of venous thromboembolism. His research interests are the cellular mechanisms in atherosclerotic plaque formation, inhibition of intimal hyperplasia following vascular interventions, and prevention of prosthetic vascular graft infection.

Professor Fletcher has published extensively in peer-reviewed journals. He is a member of the Editorial Boards of Acta Phlebologica and the Annals of Vascular Diseases. He is Senior Examiner in Vascular Surgery for the Royal Australasian College of Surgeons, is Chairman of the Australia and New Zealand Working Party on the Management and Prevention of Venous Thromboembolism, Advisor to the Executive Board of the International Union of Angiology (IUA) and President of the International Surgical Thrombosis Forum (ISTF).

Peter Gilling, FRACS

Current appointments include Consultant Urologist, Promed Urology, Head of the Bay of Plenty (BoP) Clinical School and Executive Management Committee BoP DHB, Tauranga, N.Z., Associate Prof. of Surgery (Honorary), Department of Surgery, University of Auckland and Hon. Senior Lecturer in Urology, University College London U.K. Also Chairman of Lower Urinary Tract (Male) Special Advisory Group of the USANZ and Examiner in Urology for the RACS. National and International clinical and research profile in the management of BPH and in laparoscopic and robotic uro-oncology.

Jonathan Golledge, FRACS

Jon Golledge is an academic vascular surgeon resident in Townsville, Queensland, working at The Townsville Hospital, James Cook University and The Mater Townsville. His research interests include novel diagnostics, prognostics and management pathways for peripheral artery disease, including lower limb athero-thrombosis, aortic aneurysm and carotid artery disease.

Andrew Hill, FRACS

Associate Professor Hill is a general surgeon with a colorectal subspecialty interest. His research interests are clinical and translational research in general surgery including improving perioperative care of the surgical patient and undergraduate medical education.

He is the Head of the Auckland Enhanced Recovery after Surgery (AERAS) research group. The principal aim of the research group is to enhance recovery after major colonic surgery. The group has established a successful ERAS program and has demonstrated safety of the program, improved outcomes for patients and cost effectiveness. The ERAS program provides a stable perioperative care environment enabling the use of clinical trials to investigate novel modalities to improve patient outcome.

Associate Professor Hill’s other interest is undergraduate medical education. In particular, he is interested in how the learning environment can be improved for medical students and the role of Junior Doctors in undergraduate medical education.
Guy Maddern, FRACS
Professor Guy Maddern is the RP Jepson Professor of Surgery at the University of Adelaide and Director of Surgery at The Queen Elizabeth Hospital. He is Surgical Director of the Australian Safety and Efficacy Register of New Interventions Procedures – Surgical (ASERNIP-S). His clinical interests include the physiological impact of laparoscopic surgery, and more recently the development of techniques to manage metastatic hepatic disease. He has over 300 publications in scientific journals and has contributed to over a dozen surgical publications.

Professor Maddern is also Director of the Basil Hetzel Institute at The Queen Elizabeth Hospital charged with the responsibility of defining the future direction and development of research within The Queen Elizabeth Hospital campus. He has received in excess of $29,000,000 in research funding and his current research focus brings together the development, assessment and introduction of surgical techniques, processes and technologies into clinical practice.

John McCall, FRACS
John McCall graduated from Otago Medical School in 1982 and undertook surgical training in Auckland and Dunedin. He completed an MD in cytokine production and glucose metabolism in GI cancer in 1993 and held fellow positions in colorectal surgery and liver surgery in Australia, and eventually liver transplantation surgery at King’s College Hospital, London. In 1998 he became a foundation member of the New Zealand Liver Transplant Unit and went on to develop split and live donor liver transplantation within the unit, and pursue other major clinical interests in liver cancer and hepatobiliary disease. Professor McCall has recently returned to Dunedin to work as a Hepatobiliary and General Surgeon at Dunedin Hospital and take up the McKenzie Chair in Clinical Science at the University of Otago.

In addition to his clinical interests he has been involved in laboratory and clinical research in primary and metastatic colorectal cancer, primary liver cancer, transplant immunology, and nutritional and metabolic interventions in chronic liver disease. He serves on the Data and Monitoring Committee for the Health Research Council of New Zealand and is actively involved in undergraduate and post-graduate education.

Susan Neuhaus, CSC, FRACS
Susan completed a PhD in laparoscopic tumour surgery in 2000 and the FRACS in 2002. She was awarded the Lumley Exchange Scholarship and undertook a Fellowship in Surgical Oncology at the Royal Marsden Hospital in 2004.

As a Clinical Associate Professor of Surgery, Susan works in private and public with a special interest in melanoma and sarcoma. She chairs the Surgical Oncology Group of the Clinical Oncological Society of Australia (COSA), is a Director of the Australasian Sarcoma Study Group (ASSG) and a member of the Australian Melanoma Trials Group (ANTMGT). She has published extensively, served as a reviewer and editor and written multiple book chapters, journal articles and a book ‘Radiology in Surgical Practice’.

Susan has completed an Army career spanning over 20 years. During this time she served in Cambodia, Bougainville and most recently in Afghanistan. Her military service was recognised with the Conspicuous Service Cross in the 2009 Queen’s Birthday Honours’ List. Susan remains actively involved in Veterans health issues and has published extensively on strategic defence health issues. Susan is married with two beautiful daughters aged 7 and 4 years.

Brian Owler, FRACS
Associate Professor Brian Owler is an adult and paediatric neurosurgeon who has a long term academic interest. He trained in Sydney and also furthered his academic interests at the Academic Neurosurgical Unit in Cambridge where he conducted clinical research towards a PhD. He has been a consultant neurosurgeon for 4 years with busy private and public practices. He has VMO appointments at Westmead Hospital and the Children’s Hospital at Westmead as well as several private hospitals. He has established the Kids Neurosurgical Research Unit at the Children’s Hospital at Westmead for basic science research into hydrocephalus, paediatric brain tumours and spinal cord injury. In addition he serves in the AMA NSW Branch Council and several other committees at Westmead.
Stan Sidhu, FRACS

Stan Sidhu is Associate Professor in the University of Sydney Endocrine Surgical Unit, Royal North Shore Hospital. He performs more than 400 endocrine surgical procedures per year, including both open and minimally invasive thyroid and parathyroid surgery, laparoscopic adrenalectomy and parotid and other salivary gland surgery. This is one of the largest pure Endocrine Surgical practices in Australia. 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. In conjunction with his Clinical Fellows, he conducts a number of clinical outcome studies to determine better ways to treat thyroid cancer, parathyroid disease and adrenal disease. Within the Cancer Genetics Department, Kolling Institute of Medical Research, he leads a team of postdoctoral and doctoral students who investigate the molecular mechanisms involved in cancer of the adrenal gland, phaeochromocytoma and thyroid cancer.

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 a number of local and international clinical and scientific meetings and is currently the author of over 90 publications in peer reviewed journals and book chapters.

Garett Smith, FRACS

Garett Smith is an upper gastrointestinal surgeon at Royal North Shore Hospital and Clinical Associate Professor of Surgery at Sydney University. He has an interest in benign and malignant disease of the foregut.

Mark Smithers, MBBS (Qld), FRACS, FRCS (Eng)

Associate Professor, University of Queensland.
Director, Upper Gastro-intestinal and Soft Tissue Unit, Princess Alexandra Hospital, Brisbane.
Chairman, Queensland Melanoma Project.
Executive, Section of Surgical Oncology, RACS.
Member, Scientific Advisory Committee of the Australasian Gastro-Intestinal Trials Group.
Vice President, Australia and New Zealand Gastric and Oesophageal Surgeons Association.

Clinical interests: malignant and benign conditions of the oesophago-gastric region; management of patients with sarcoma and malignant melanoma. Clinical research programmes into outcomes from treatment for oesophageal cancer, GIST and melanoma. Investigator on grants assessing the epidemiology and management of oesophageal cancer (NIH, USA and NH&MRC) and aspects of the management of melanoma (NH&MRC, Cancer Council of Queensland).

Michael Solomon, FRACS

Professor Michael Solomon is a consultant surgeon and Academic Head of the Department of Colorectal Surgery at the Royal Prince Alfred in Sydney. He is a Clinical Professor of Surgery and Director of Colorectal Research, both for Royal Prince Alfred Hospital and the University of Sydney and is a past President of the Colorectal Surgical Society of Australia & New Zealand (CSSANZ). He is the current Chairman of the Post-FRACS Training Board in Colorectal Surgery of RACS & CSSANZ.

Professor Solomon has extensive experience in clinical surgical research and has published over 150 papers. He is the Founding Director and Head of the Surgical Outcomes Research Centre (SOuRCe) at the University of Sydney which was established as a multidisciplinary, academic research unit dedicated to the advancement of evidence-based surgical practice through the conduct of outcomes-orientated surgical research. He teaches clinical epidemiology and research methods to
postgraduate students and surgical fellows and currently supervises three PhD students and 6 Masters students, all of whom are academic surgeons. He has obtained over 9 million dollars in peer-reviewed funding for colorectal research and is actively involved as principal investigator in 9 RCT’s. Professor Solomon is a member of many national and international colorectal advisory committees. He Chaired the Australian NHMRC Guidelines for the Prevention, early detection and treatment of colorectal cancer in 2006. Professor Solomon is on the Editorial Board for the Colorectal Disease, the International Journal of Colorectal Diseases and Diseases of the Colon & Rectum. Professor Solomon’s surgical expertise is in multi-disciplined complex pelvic surgery for advanced and recurrent malignancy, inflammatory bowel disease and pelvic floor disorders as well as laparoscopic colorectal surgery.

Noel Tait, FRACS
Noel Tait spent over 20 years as a busy general surgeon with special interests in acute general surgery and upper GI and breast surgical oncology, initially at Westmead Hospital and Sydney University and then Canberra in the ACT. Throughout that time he was heavily involved in undergraduate and post graduate surgical education and training and completed his time in Canberra as Sub-Dean for The Australian National University Medical School at Calvary Hospital. He is now Foundation Professor of Surgery at the Graduate School of Medicine at Wollongong University and a consultant general surgeon at the Wollongong Hospital.

David Watson, FRACS
Professor David Watson is Head of the Flinders University Department of Surgery. He has clinical and research interests in the area of benign and malignant oesophageal disease, including gastro-oesophageal reflux and oesophageal cancer. He has been active in the development of laparoscopic and endoscopic surgery in Australia, and has conducted 14 randomised controlled trials pertinent to this area. He also leads a molecular biology research group which is investigating the development of oesophageal adenocarcinoma. Professor Watson has published more than 200 refereed research papers, and he has obtained more than $10,000,000 of research grant funding over the last decade, including 10 NHMRC project grants, and grants from the Australian Research Council and NIH. Professor Watson has been a member of NHMRC project grant review panels, and was Chairman or Deputy Chairman of the Surgery panel from 2004 to 2008. Professor Watson has been awarded the John Mitchell Crouch Fellowship from the Royal Australasian College of Surgeons. He is currently the Foundation President of the Australian and New Zealand Gastric and Oesophageal Surgery Association (ANZGOSA), and past-chairman of the HPB & Upper GI Section of the Royal Australasian College of Surgeons. He is a Senior Editor of the ANZ Journal of Surgery, and a member of the Editorial Boards of several Journals, including the Journal of Gastrointestinal Surgery, the British Journal of Surgery and World Journal of Surgery.

John Windsor, FRACS
John Windsor holds a personal chair and is Head of the Department of Surgery at the University of Auckland. He founded the Pancreas Research Group 1992, Surgical Skills Centre 1993, HPB/UGI Unit 1994, Surgical Research Network 2007. Special clinical interests include the management of acute and chronic pancreatitis, pancreatic cancer, GORD and gastro-oesophageal malignancy. His current research includes the role of toxic mesenteric lymph in the promotion of multiple organ failure, the adaption of cyclic voltammetry to the measurement of global oxidative stress, the investigation of specific mitochondrial therapies to restore cellular bioenergetics, and the mapping and modulation of gastric electrical activity. He is medical director of SIMTICS Ltd that has developed the ‘Integrated Cognitive Simulator’ for procedural and surgical skills training. Awarded the Tertiary Teaching Excellence Award (Innovation) from the University of Auckland. Currently on the Board of Surgical Educators and General Secretary of International HPB Association.
Fiona Wood, FRACS, AM
Winthrop Professor, BIRU, School of Surgery UWA Chair, The McComb Research Foundation Dedicated to research and education into burns, trauma and scarless healing.
Professor Fiona Wood is a plastic and reconstructive surgeon specialising in acute burn care and scar reconstruction. She is the Director of the Burn Service of Western Australia, Consultant at Royal Perth Hospital and Princess Margaret Hospital in Perth, the Co-founder and Director of AVITA Medical (formally Clinical Cell Culture (C3)) and Co-founder and Chair of the McComb Foundation. Through the McComb Foundation (which she co-founded with scientist Marie Stoner), Fiona aims to conduct further research into tissue repair, regeneration and reconstruction with the aim of improving patient quality of life and return to pre-injury condition.

Jane Young, MBBS, MPH, PhD, FAFPHM
Professor Jane Young was recently appointed as the Chair in Cancer Epidemiology at the University of Sydney and Scientific Director of the Cancer Information and Registries Division of the Cancer Institute NSW. Since 2002, she has been the Executive Director of the Surgical Outcomes Research Centre, a conjoint surgical research unit of the University of Sydney and Sydney South West Area Health Services. Jane has a long-standing interest in surgical outcomes research, particularly the evaluation of new procedures and novel models of service delivery, patient-centred outcomes including health-related quality of life and the quality of cancer care. She is currently a chief investigator on six randomised trials in the surgical setting, the majority of which are multi-centred. Jane teaches quantitative research methods in the Masters of Surgery Program at the University of Sydney and supervises postgraduate masters and doctoral candidates. Jane has a decade of experience as a member of the Ethics Review Committee at Royal Prince Alfred Hospital, Sydney.

Abstracts

Where do good research ideas come from?
Professor John McCall, FRACS
Characteristics of a ‘good’ research idea include simplicity, relevance, equipoise, and feasibility. Originality may be less important as many ‘old’ questions have not yet been adequately answered. In clinical research statistical power is a major element of feasibility. There are many good research ideas that require multi-centre co-operative research groups.
Laboratory research ideas tend to originate out of prior laboratory discoveries and are often instigated by non-surgeon scientists. Nevertheless surgeons have an important role that goes beyond provision of subjects and/or specimens. Academic surgeons can invigorate laboratory research by providing clinical context and insight, making a meaningful contribution to the development of ideas and identifying opportunities for translation of laboratory discoveries to the clinical environment. Surgical trainees undertaking laboratory research are an important bridge between scientist and academic surgeon.
Clinical research ideas arise from clinical practice and related literature. Students and trainees are a valuable source of ideas because they ask simple direct questions. Potential research questions emerge from every ward round, operating session, outpatient clinic, MDM and clinical audit meeting. Qualities that enhance the likelihood of gleaning good ideas from clinical situations include astute observation, critical thought and an open mind.
The surgical literature is dominated by studies that generate hypotheses and is a rich source of ideas. However generation of hypotheses alone does not change practice; more hypothesis testing is necessary for the benefits of research to reach the bedside. A major challenge for the surgical research community is to find a closer balance between generating and testing hypotheses in the clinical environment.
Inspiration alone is not enough. Turning a good idea into good research requires academic discipline, including serious thinking time and the ability to conduct a rigorous, in depth, critical appraisal of the relevant literature. Critical appraisal is essential to define the knowledge gap precisely, refine the question accordingly, and begin to conceive of a study design that is capable of answering the question.
How to design a study to get an answer: Types of research
Malcolm V. Brock, MD

After the research question has been formulated, the next step in developing any clinical trial is to design a well-structured research plan. Major objectives in clinical research design are to prevent errors, complete the study in a reasonable period of time and do it all at a low cost. To this end, this lecture will review very practical strategies that new investigators can take to avoid common problems that plague studies with poor design. Initially, the lecture will describe the main types of clinical research, and then review basic concepts and terms such as internal and external validity, accessible and target populations, random and systematic error, types of bias, precision, accuracy and so on. Next, the lecture will focus on critical steps that all investigators should take to learn how to organize thoughts in formulating and implementing a study plan. Investigators will then learn basic ways to avoid common pitfalls in choosing research subjects, planning measurements, and implementing a study design. The lecture will end with simple strategies for dealing with confounding variables, spurious associations and the like. At the end of the session, additional reading material will be cited to encourage new investigators to examine the considerable literature on the subject.

What makes surgical research ethical? History and applicability
Andrea Hayes-Jordan, MD

As surgeons we have a huge responsibility to conduct ethical clinical research. In medicine, clinical trials largely consist of administration of a new drug or drug combination. In surgical research, we perform invasive procedures that usually cannot be blinded and we are not only the principal investigator, but also the one performing the invasive procedure. Without proper preparation and trial design, a conflict of interest can arise. In this presentation we will identify the appropriate ‘checks and balances’ that are necessary to conduct surgical research and properly design clinical trials to avoid ethical conflicts. We will also define the principals of ethical conduct in surgical research. (Dr Hayes-Jordan has designed and conducted and completed a surgical phase 1 clinical trial).

What makes surgical research ethical? Timing and structuring applications
Jane Young, MBBS, MPH, PhD, FAFPHM

Time and funding constraints often drive researchers towards early submission of an ethics application, however projects that are submitted before they are fully developed are more likely to have a tortuous path through the approvals process. The specific aims, hypotheses and study methods need to be thought out in detail before an adequate and accurate ethics application can be completed. A fundamental decision is the type of application that is required. Some studies can be covered by expedited approvals for ‘low risk’ research. Multicentre studies, or those that could become multicentre in the future, can often be covered with single ethical review by a ‘lead’ ethics committee and separate research governance review (‘Site Specific Assessment’) for individual sites. When preparing an ethics application it is important to remember that this has a different purpose from a grant proposal or scientific article. Applications should be written in plain English with minimal abbreviations or medical jargon, suitable for an educated but non-specialist audience. The committee needs to be able to weigh up the potential risks against the potential benefits of the research. An insightful summary of the current literature with clear and achievable aims should convey the potential benefits. Detailing what exactly is planned for research participants, and how this differs from standard clinical care, enables the level of risk to be assessed. Using ‘preferred formats’ for information sheets and consent forms will minimise revisions to these documents, thereby easing the ethics approval process.

Design, power and statistics
Julie Ann Sosa, MA, MD, FACS

This course will introduce the statistical issues important for planning and analysis of research and enable an understanding of the basic statistical aspects of published research. A broad overview of research design will be provided, with the necessary consideration of sample size calculation, descriptive statistics, graphical displays of data, introduction to probability, confidence intervals, chi-square tests for categorical variables, Student’s T-test and analysis of variance, linear and logistic regression and multiple regression, and survival analysis. Biostatistics resources and software will be reviewed, and applications. The goal is for attendees to be prepared to properly choose the most adequate statistical method to analyze several types of experimental and observational data.
Submitting and revising your manuscript including abstracts
Melina R. Kibbe, MD, RVT, FACS
This talk will discuss how to write a scientific article. Topics that will be covered include how to compose a precise title, concise abstract, purposeful introduction, descriptive methods, results section, and an appropriate discussion. In addition, how to write with clarity using precise and simple words will be discussed. And, how to avoid common writing flaws will be addressed.

The highs and lows of a successful research career
Fiona Wood, FRACS, AM
How do we measure success in research? By publications, patents, grant funding, supervision of higher degrees, or by the impact of an idea on an individual who at that point of their life’s journey need a surgical solution? The undertaking to attempt to measure a single variable, itself a needle in a hay stack, in a background equivalent to the changing sands of the Sahara, requires strong focus, motivation and funding!
Review of the history of surgery demonstrates advances related to ideas implemented by a few, changing practice for many. The modern day academic surgeon needs to rapidly learn to juggle clinical practice and integrate it with research endeavours. They require a working knowledge of research governance from ethics, to implications of commercialisation and of the regulatory frameworks in place to maintain safety and standards. As surgeons we all need to strive to learn from today to enhance tomorrow’s performance, as researchers we need to ask how.
Over the last 2 decades I have observed many people healing post burn injury. In 1991 as director of the burns service of WA I believed and still do, that all patients should be involved in clinical trials in the drive towards scarless healing. In sharing my journey, I know that surgery influences many lives for the better every day, but we can always do better, so that journey continues. Clinical practice is the art of problem solving, research gives us the opportunity to explore innovative solutions that can change lives into the future.

An academic career and private practice
Brian K. Owler, FRACS
Surgeons interested in pursuing academic careers are faced with a number of challenges which include determining the model of practice which most suits their needs and goals. A private practice and an academic career are not mutually exclusive. An academic career may be enhanced by private surgical practice. In this presentation such a model of practice is discussed with reference to Associate Professor Owler’s personal experience in establishing the Kids Neurosurgical Research Unit at the Children’s Hospital at Westmead and how his research relates and is facilitated by a busy private neurosurgical practice.

Why a trainee should consider doing fulltime research
Vanessa Blair, FRACS
The aim of this talk is to help trainees make a considered decision about whether or not to do full-time research. In medicine, clinical decisions can be evidence-based, but what about career decisions? The talk will cover the benefits of doing fulltime research, both professional and personal. Some benefits are obvious, for example, gaining detailed knowledge in a particular subject area, developing a competitive CV and honing your presentation skills. Other advantages are less obvious, for example, becoming familiar with various medical journals, being able to critically appraise papers better and having the opportunity to attend more conferences early in your career. The question of whether there is a “right” time to do research will be addressed. Finally, the potential effects that a period of full-time research may have on one’s perspective will be discussed.
Designing a clinical trial - things to think about

David I. Watson, FRACS

A clinical trial should be designed to minimise bias and maximise generalisability of the results. The following should be considered:

1) What is the question? Is it worth answering?
2) Is a clinical trial the best way to answer the question?
3) Are you well placed to conduct this trial?
4) Do you have the clinical caseload and infrastructure support to run the trial?
5) Is the trial well designed?

The Consolidated Standards of Reporting Trials (CONSORT) statement (JAMA 2001;285:1987-1991) provides a 22 item checklist and framework for reporting the results from a clinical trial. Considering this check list at the stage of trial design will ensure all aspects of trial design are considered.

Important aspects of trial design include:
1) Objectives & Hypotheses
2) Inclusion & Exclusion criteria
3) Standardisation of interventions
4) Standardisation of outcome assessment
5) Sample size
6) Randomisation
7) Blinding
8) Statistical analysis
9) Reporting of outcome – primary vs secondary outcomes
10) Interpretation of outcomes and generalisability of conclusions.

Novel, clinically relevant quality of life and cost-effectiveness research

Julie Ann Sosa, MA, MD, FACS

Health services research is a burgeoning field of investigation which embraces a number of different methodologies, including quality of life (QoL) and cost effectiveness (CEA). This overview will review the lexicon of each field, as well as the fundamental techniques of analysis and applications from the surgical literature. Tactics for conducting QoL trials will be reviewed, including novel instrument development and validation, sampling, and choosing among validated generic and disease-specific QoL measurement tools. For CEA, an introduction to decision analysis and modeling, including data sources, decision trees, Markov models and Monte Carlo simulation, will be followed by a review of clinical probability, cost and utility data. Interpretation and presentation of results will be demonstrated through real-life application in a case study.

Finding the money for research

Jonathan Golledge, FRACS

Most research requires funding although the amount varies depending on the type of research. In this talk I will discuss possible sources of research money, features of the application process and suggested ways to achieve success in research grant applications. The discussion is based on experience obtained over the last 8 years of independent academic career in Australia.

Choosing a mentor and project, fellowship in USA and USMLE

Cuong Duong, MB BS, PhD, FRACS

Appropriate mentorship imparts many potential benefits at all stages of professional development. A good mentor acts as a positive role model and provides guidance and constructive feedback to the mentee. Ideally the mentor is knowledgeable, well respected, supportive, reliable, approachable and accessible. Good mentoring empowers the mentee to develop their own strengths, beliefs, and attributes required to achieve their personal and professional goals. One often does not choose a mentor as mentorship usually evolves from a working relationship over time.

On the other hand, choosing the right project is critical in achieving a successful and rewarding research experience. The mentor/research supervisor plays an important role by determining the project’s feasibility and its potential impact to the literature.
There are many world-leading institutions in the United States offering excellent clinical and research fellowships for foreign medical graduates. Apart from steps taken to secure these competitive fellowships, there are legal requirements that need to be fulfilled in order for one to practice medicine in the U.S. These include medical qualifications from Universities recognised by the Educational Commission for Foreign Medical Graduates (ECFMG), United States Medical Licensing Examinations (USMLE), ECFMG certification, state-specific licensing requirements, and a working U.S. visa.

**How do you fit it in: Work-life balance**

**Andrew G. Hill, FRACS**

Burnout is an increasing problem amongst medical practitioners and surgeons in particular. With increasing demands on time and increasing expectations by the multiple players in the life of the clinical academic it is imperative that work-life balance is considered.

In this presentation the pressures of the clinical academic life will be discussed and then a set of basic principles for achieving work-life balance will be outlined. The principles will include: Looking after the little things, Delegation, The enemy of the good, The secret of Contentment, What’s your heart telling you and the Story of the Jar.