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BASIL
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The Queen Elizabeth Hospital Research Report 2006



The Queen Elizabeth Hospital

Research Report

,06

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Professor Guy Maddern

“The next 18 months promises to be an exciting and satisfying period as the various research groups plan to move from a 50-year-old renovated nurse’s accommodation building into a purpose built modern scientific facility. This has been long overdue and will certainly provide great impetus for attracting staff in the future as well as developing other collaborative links so important for the future of research within South Australia.”

2006 Foreword

2006 has again seen growth in the research activity at The Queen Elizabeth Hospital within the Basil Hetzel Institute. The success when measured in terms of higher degree students, publications achieved and grant income have all continued to rise over the past 12 months. In addition a number of research groups that had previously been nurtured and developed at The Queen Elizabeth Hospital have now become free standing organisations no longer requiring the support of the Basil Hetzel Institute. In particular the Research Centre for Reproductive Health research group have moved to new facilities developed within the medical school on Frome Road and the group associated with the sleep studies have also moved to impressive purpose built facilities at the University of South Australia campus on North Terrace. This reinforces the strong role of The Queen Elizabeth site as an incubator for successful and well-established research groups that are able to then lead to a self-determined and independently supported path. It is this role that the Basil Hetzel Institute looks forward to continuing into the future.

In their place, new groups are beginning to emerge with considerable success and strength; in particular the transplantation group has recently been successful in obtaining a large grant over a four-year period supported by the Juvenile Diabetes Research Foundation. This will allow innovative research to occur within the area of pancreatic islet cell transplantations and may offer solutions for sufferers of insulin dependent diabetes, a problem that carries with it a lifetime of invasive medical management as well as serious long-term complications.

The Division of Surgery has also seen strong development within the Ear, Nose and Throat department with a well-developed research base now comprising a separate report within this 2006 annual review. Other groups over the next two to three years will also become more established and be able to advance at an increased rate.

At the time of writing this report the architectural plans have been completed for the new research building and tenders are now being sought. The proposed commencement date is May 2007 and the design is an innovative state of the art research facility able to meet the immediate needs of The Queen Elizabeth Hospital. However, it is also appreciated that research needs and facilities will not stay static and expansion capabilities to more than double the 4000sqm of research space have been built into the planning process. This will inevitably mean that as research groups flourish and require more resource the site will be able to accommodate them providing adequate capital support can be found to build additional space.

The next 18 months promises to be an exciting and satisfying period as the various research groups plan to move from a 50-year-old renovated nurse’s accommodation building into a purpose built modern scientific facility. This has been long overdue and will certainly provide great impetus for attracting staff in the future as well as developing other collaborative links so important for the future of research within South Australia.

Guy Maddern
Director of Research
The Basil Hetzel Institute
The Queen Elizabeth Hospital



Professor Don Moyes

Anaesthesia and Division of Critical Care

– Department of

Focus

Anaesthesia Department:

- Thoracic surgery and airway management.

Emergency Department:

- Mental Health collaborative project
- Pandemic Influenza project
- Evidence based practice research workgroup

Overview

Anaesthesia

The Department of Anaesthesia provides a hospital wide service to surgery, cardiology, imaging and psychiatry. Teaching airway skills for Resuscitation, Ambulance staff and the Emergency Department are major commitments.

The Department is actively involved in the assessment of rural GP's for anaesthetic privileges.

Thoracic anaesthesia and developing techniques and science behind one lung ventilation are a major thrust for research.

Work on the use of local anaesthetics in tumescent anaesthesia for plastic surgery was continued.

Emergency Department

Emergency Department (ED) Research

Nursing home residents in the emergency department, (James Smyth). This is an ongoing retrospective survey aimed at the patient's assessment including the occurrence of an advance care plan, their diagnoses, management and disposition. Trends from year to year are also being studied.

Emergency Department Educational and Training Activities
The ED in association with the ACEM SA Faculty and CENA hosted the annual ACEM / CENA conference in May 2006. The conference was attended by over 90 registrants. Participants included metropolitan and SA country members of the ambulance, nursing and medical professions.

The DMT organised and held a Clinical Skills Workshop involving ED medical and nursing staff, as well as a group of local General Practitioners, who perform sessional work in the ED. The demand for places at the workshop was so great that the Workshop will be held on a 6 monthly basis in the Clinical Skills Laboratories as of 2007.

Dr Alan Broomhead attended the Annual Scientific Meeting of the College for Emergency Medicine in Sydney between 19 and 24 November 2006. He has been appointed to the Maintenance of Professional Standards (MOPS) Committee of the College. This committee oversees a program of enhancement of professional competence for all Fellows in Australasia. He was also appointed during 2006 as a reviewer for the journal "Emergency Medicine Australasia".

Intensive Care Unit (ICU)

ICU has its research activity detailed under Intensive Care Unit of this report.

Staff

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Research

- Improving therapy for angina pectoris
- Mechanisms and therapy of aortic valvular disease
- Prevention of thrombosis in cardiovascular disease

Cardiology Unit

Professor John Horowitz

Overview

The following are major areas of ongoing research:

Advances in Coronary Reperfusion Therapy (Dr J Beltrame)

Heart attacks are due to the abrupt closure of a coronary artery. This involves an interplay between an atheromatous plaque, clot and spasm of the coronary artery. Current therapies to open the artery and restore perfusion involve mechanical reperfusion therapies such as balloon angioplasty and stenting, or the use of thrombolytic agents. Therapies directed towards treating the coronary artery spasm have largely been ignored in recent years but may play an important role as suggested by preliminary studies conducted at TQEH.

The IVANA trial (Intravenous Verapamil and Nitrates in Acute Myocardial Infarction) is an ongoing multi-centre study supported by the National Heart Foundation of Australia and coordinated by TQEH. This study will test the hypothesis that early administration of drugs which counteract coronary artery spasm (Verapamil and Nitroglycerin) assist in the opening of occluded arteries, in patients experiencing an acute heart attack

Mechanisms and Therapeutics of Coronary Microvascular Disorders (Dr J Beltrame)

Angina pectoris is a characteristic chest pain due to an insufficient blood supply to the heart muscle. This compromised blood supply is often due to obstruction of the large coronary arteries which can be readily identified on coronary angiography and may be amenable to balloon angioplasty or stenting. However some patients with angina do not have significant blockages in the large arteries therefore implicating abnormalities in the microscopic coronary vessels.

The coronary slow flow phenomenon is a coronary microspastic disorder which was first characterised at the TQEH. This condition is associated with recurrent chest pain and may result in a substantial impairment in quality of life. Although a treatment for this disorder was discovered at TQEH, this drug is unfortunately no longer available. Our current basic laboratory and clinical studies are directed towards further understanding this disorder and identifying an effective therapy for the disabling angina.

Impact of Coronary Disease on Quality of Life (Dr John Beltrame)

Considerable efforts have been directed towards reducing the risk of heart attacks and death in patients with coronary heart disease. While some studies have focussed on the impact of this disease on quality of life, few studies have undertaken a comprehensive assessment. A large dedicated team of researchers are investigating the determinants of quality of life in patients with coronary heart disease at TQEH. It is anticipated that understanding the relative importance of these determinants will aid in directing future therapies towards improving the quality of life of these patients.

Pathogenesis of Aortic Stenosis (Prof J Horowitz, Dr J Kennedy, Dr Y Chirkov)

Aortic stenosis (AS) is the most common cause of disease in the Australian population. It affects individuals particularly as they age. We are trying to develop therapies to retard the progression of aortic stenosis and thus decrease the need for valve replacement. Components of the research in this regard include creation of a tissue culture model of aortic valve disease, development of aortic stenosis in rabbits treated with vitamin D supplements, and preparation of a human data base for patients with early stages of aortic stenosis ("aortic sclerosis"). We are also evaluating the possible effects of a number of agents in improving outcomes in aortic stenosis. This includes a clinical study of the effects of perhexiline (the IMPASS investigation) and also an evaluation of the effects of ramipril in rabbits.

Metabolic Anti-Ischaemic Agents (Dr J Kennedy, Prof J Horowitz)

Our recent research has shown that perhexiline, already known to be effective in relieving angina in patients who are unresponsive to other therapies, also improves left ventricular function in patients with heart failure. The relationship of this improvement to our recent demonstration that perhexiline markedly improves the efficiency of oxygen utilisation of the myocardium, as well as suppressing inflammatory changes in white blood cells, valvular cells and endothelial cells, is under investigation. We are also interested in evaluating the effects of perhexiline as an adjunct to reperfusion therapy in acute myocardial infarction. We have therefore developed a regimen for acute treatment of patients with evolving myocardial infarction with perhexiline.

The Renin-Angiotensin System and Platelet Function (Dr Y Chirkov, Prof J Horowitz)

We have demonstrated that therapy with the ACE inhibitors perindopril and ramipril sensitises platelets to nitric oxide. This is likely to provide the mechanism for the known effects of these agents in reducing the risk of myocardial infarction

and stroke. We have identified a sub-group of patients with known ischaemic heart disease who are likely to benefit in particular from the use of these agents.

Optimising the Effects of Nitrates and Nitric Oxide in Arteries and Platelets (Prof J Horowitz, Dr Y Chirkov, Dr J Kennedy)

The basis for this research is related observations. First of all, nitric oxide, which is released from the endothelial lining of blood vessels and prevents spasm and thrombosis of these vessels, becomes less effective in patients who are prone to the development of coronary events. This phenomenon, of nitric oxide resistance, has been shown by our group to be a major prognostic marker. The second related observation is that drugs used in the treatment of heart disease such as nitroglycerin, (a nitric oxide donor) become less effective with the passage of time, a phenomenon known as nitrate tolerance. We are interested in developing strategies to circumvent both of these problems. We have demonstrated that a number of forms of therapy calculated at reducing redox stress improve tissue responsiveness to nitric oxide. Such therapeutics include ACE inhibitors, perhexiline, possibly cholesterol lowering, and certainly improved diabetic control in diabetics.

Patients at risk of nitrate tolerance lose their ability to release nitric oxide from organic nitrates. We have investigated the possibility that aldehyde dehydrogenase (ALDH) is the critical enzyme involved in this process; however, it appears that ALDH, while a valid marker for nitrate tolerance, is not the main mediator of this problem.

Finally, it has recently been demonstrated that hydralazine may augment responses to organic nitrates. We are trying to determine whether this interaction may be useful in the management of ischaemia.

Platelet and Endothelial Dysfunction in the Polycystic Ovary Syndrome (Prof J Horowitz)

The polycystic ovary syndrome is a common cause of menstrual disturbances and impaired fertility. Many people with polycystic ovary syndrome are obese and there is an increase risk of diabetes. It has been suggested for some time that polycystic ovary syndrome may be a risk factor for the development of heart disease in women, but it has been felt that this occurs via the associated obesity, insulin resistance and diabetes. We have shown that young women with polycystic ovary syndrome exhibit abnormalities of platelet and blood vessel function irrespective of body weight. These ongoing studies will seek to investigate the implications of therapy and the ageing process on cardiac risk profile in this group of individuals.

Non-pharmacological Interventions in Heart Failure (Prof S Stewart, Prof J Horowitz)

We have previously shown that outcomes in patients with chronic heart failure can be improved by screening them for short term deterioration during the early period of time after discharge from hospital. The success of such interventions has lead to the wide spread clinical utilisation of nurse lead outreach programs for patients with chronic heart disease. The nature of these programs varies somewhat, and it is important to delineate the optimal program for patient outcomes. We

have demonstrated that the protocol developed at TQEH is associated with reduced admissions as well as improved survival over a 10-year period. An ongoing research program will compare this protocol with related forms of nurse-lead intervention in patients with chronic heart failure.

The methodology utilised for all of these research protocols involves a continuum of “bench to bedside” techniques. Apart from the evaluation of platelet and blood vessel pharmacology, and cardiac performance, we have also utilised a number of key investigations which are now of central importance in a variety of our studies.

These include:

1. Assay of asymmetric dimethylarginine (ADMA).

This assay, developed by Ms Tamila Heresztyn, provides a marker of the function of the vascular endothelium. We recently reviewed the importance of this assay for all cardiac studies examining both physiology and prognostic markers.

2. Magnetic Resonance Imaging (MRI) of the Heart.

We have increasingly utilised MRI imaging to characterise cardiac anatomy and function. This is increasingly important for identification of microinfarction and perfusion abnormalities.

3. Echocardiographic Backscatter.

This technique, initially utilised for the quantitation of early aortic stenosis in a study from TQEH, is a vital tool in enabling us to follow the progression of aortic valve disease in both animal models and in the general population.

4. Endothelial Progenitor Cells Function.

In collaboration with the Renal Unit of TQEH, we are developing methods for quantitating the release from the bone marrow of endothelial progenitor cells, which play a major role in the ongoing repair of the vasculature. Disorders of endothelial progenitor cell function postulated in association with most forms of cardiac disease and an additional therapeutic objective should be the optimisation of EPC release.

Collaborators

- (1) Department of Physiology, University of Adelaide
- (2) Department of Medicine, St Vincent's Hospital, Melbourne
- (3) Department of Epidemiology and Preventative Medicine, Monash University, Melbourne
- (4) Cardiology Department, Birmingham University, UK
- (5) Department of Obstetrics and Gynaecology, University of Adelaide
- (6) Baker Research Institute, Melbourne

Staff

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Postgraduate Students

PhD Candidates

C Ball BSc(Hons) “Calcium T-Channel Distribution in the Human Vascular Tree and its Relation to Function”
N Cutri BSc(Hons) “The Characteristics of Microspastic Angina”
N Ghaffari BSc(Hons) “The Modulation of Vasomotor Responses by Statin Therapy”
E Lieberts (nee Kelly) BSc(Hons) “Determinants of vascular nitric oxide responsiveness: metabolic aspects”
D Ngo BPh(Hons) “Aortic stenosis: pathogenesis studies and therapeutic interventions”
A Philpott MBBS FRACP “Mechanisms and prevention of nitrate tolerance”
S Rajendran MBBS(Hons) “Platelet Aggregation and the renin angiotensin system”
B Jesuthasan MBBS, FRACP “Coronary and myocardial perfusion studies of the coronary slow flow phenomenon”
A Chan MBBS “The polycystic ovary syndrome and coronary risk”

A Sverdllov MBBS “Pathogenesis of aortic sclerosis”
V Kopetz BSc(Hons) “Clinical and biological determinants of the coronary slow flow phenomenon”
R Tavella BSc(Hons) “Prognostic determinants on patients with chest pain and normal coronary angiography”

Masters Candidates

X Hua BMed “Biochemical studies of the normal and stenotic aortic valve”
K Mishra MBBS “Pathogenesis of aortic valve calcification”

Grants

National Heart Foundation of Australia “Impact of perhexiline on regional and global cardiac function in patients with viable myocardium” (\$120,000 2006) 2005-06, Marwick TH, Horowitz JD.

National Heart Foundation of Australia “Modulation of myocardial metabolism in heart failure: implications regarding inflammation, vascular platelet and myocardial function” (\$126,000) 2007-2008, Horowitz JD, Kennedy J, Chirkov Y, Edwards J.

National Heart Foundation of Australia Clinical Research Fellowship “Mechanisms and new therapies of acute coronary syndromes” (\$30,580 2006) 2006-2009, Beltrame J.

National Heart Foundation of Australia Grant in Aid “Endothelial in the pathophysiology of the coronary slow flow phenomenon” (\$61,500 2006) Beltrame JF.

National Heart Foundation of Australia “The Early Use of Intravenous Verapamil and Nitrates in Acute Myocardial Infarction (The IVANA Trial)” (\$60 000 2006) 2005-2006, Beltrame JF, Chew D, Mahar LJ, Horowitz JD.

NHMRC/NHF “The pharmacotherapy of endothelial dysfunction in the vasculature and aortic valve” (\$10,000 2006) 2003-2006, Rosenkranz, A.

The Queen Elizabeth Hospital Research Foundation Postgraduate Research Scholarships (\$53,000 2006) Ball C, Cutri N, Ghaffari N, Ngo D, Tavella R.

University of Adelaide Faculty of Health Science Divisional Scholarships (\$48,077 2006) Ball C, Cutri N, Ghaffari N, Ngo D, Tavella R.

University of Adelaide Faculty of Health Science/Department of Health Postgraduate Scholarship (\$19,231 2006) Chan A.

NHMRC Postgraduate Medical Scholarship “Coronary and myocardial perfusion studies of the coronary slow flow phenomenon” Jesuthasan B.

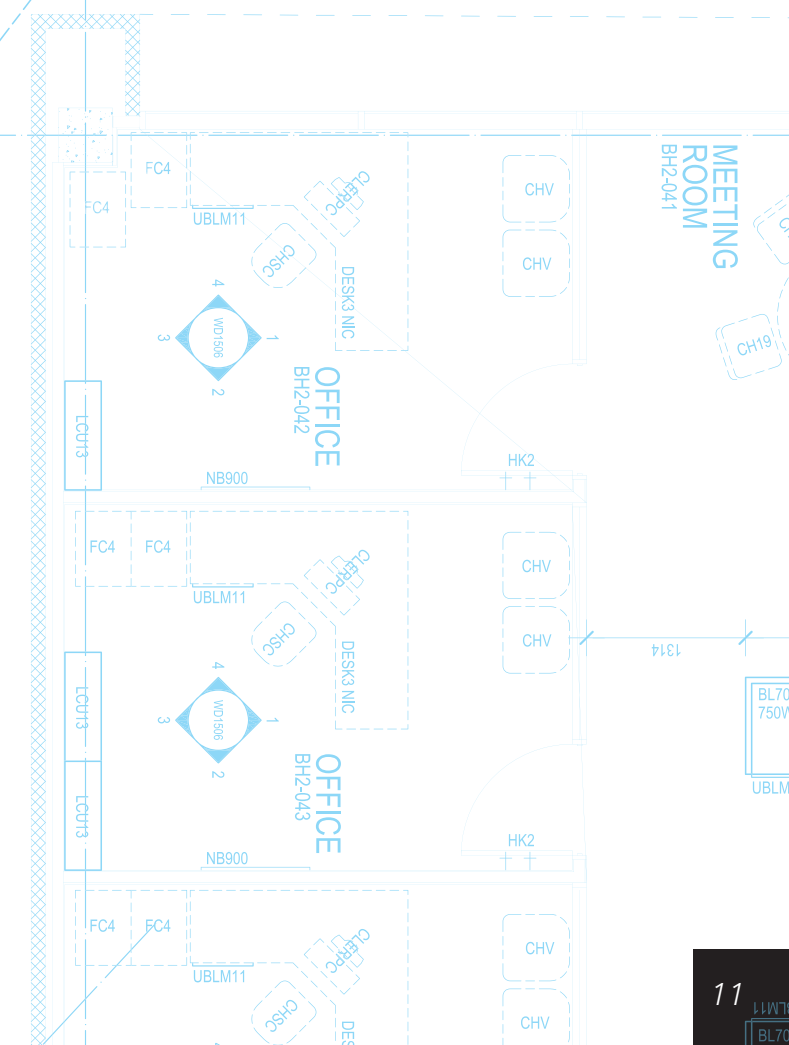
University of Adelaide Faculty of Health Science New Collaborative grant “Polycystic ovarian syndrome and cardiovascular risk: platelet and endothelial function” (\$22,000 2005-06) Horowitz J, Willoughby S, Rajendran S, Norman RJ.

Acknowledgements

The Cardiology Unit wishes to thank the Anne-Marie Trimboli Trust, the NHF and NHMRC for their ongoing project and research staff support and the National Heart Foundation, The Queen Elizabeth Hospital Research Foundation and the University of Adelaide for their valuable support to its students.

Rotary Club of Woodville

(Cardiology)
The Rotary Club of Woodville has been an avid supporter of The Queen Elizabeth Hospital Research Foundation, in particular the Cardiology Department. Proceeds raised from their annual Quiz Nights go towards cardiology research.





Clinical Pharmacology Unit

Assoc. Professor
Ray Morris

Overview

Clinical Pharmacology is ideally suited to bridge the nexus between clinical patient management and medical research, in that the diagnostic services provided for the more complex drugs are also intrinsic to much of the research undertaken. Hence the knowledge gained can directly impact on clinical care delivered at TQEH and beyond. The following subheadings highlight some achievements over the past year.

Drug mechanisms

Research into the mechanisms of drug-induced DNA damage has continued with the support of a NH&MRC-funded Research Scientist. This work has described a new pathway of DNA damage involving the UDP-glucuronosyltransferase enzymes, that usually detoxify drugs and foreign chemicals in the body, converting some drugs to chemically reactive, damaging metabolites. We have shown that this pathway of DNA damage may be active for a significant number of chemically and clinically different classes of drugs. We are working to incorporate this new knowledge into practical methods for improving safety assessments during the development of new drugs.

Angina treatment

The department maintains an active research interest in the treatment of angina, particularly in patients receiving perhex-

iline, an older and very effective drug which can, however, cause serious liver and nerve toxicity. Our research aims to enhance the safety of perhexiline by improving dosage individualisation for patients.

The project is currently supported by:

- A PhD student whose work has for the first time fully characterised the metabolic fate of perhexiline in the body, and demonstrated the usefulness of genetic testing in guiding the treatment of angina patients with perhexiline.
- An Honours student who has investigated some of the biochemical pathways through which perhexiline may exert its therapeutic and toxic effects, and who will continue next year as a PhD candidate to use our knowledge of the effects of perhexiline to develop a new treatment for angina.

Transplantation therapy

Research projects involving drugs used to avert rejection in organ transplantation:

- A Masters degree study investigating the drug interaction seen between sirolimus and diltiazem in renal transplant recipients.
- Together with the QEHRenal Unit and other members of the SA and NT group progressing pancreatic islet cell

transplantation for the treatment of type-1 diabetes, our group has contributed to a major Federal Government grant to establish this procedure as part of a national consortium. The other successful grant recipients include Westmead Hospital (NSW) and St Vincent's & Austin Hospital (VIC). Our department will be providing the national drug monitoring service in this consortium, and also a research component intrinsic in each application. We acknowledge the hard work of the Juvenile Diabetes Research Foundation (JDRF) in making this research funding available.

- A PhD study into the cellular mechanisms by which the liver handles mycophenolate and other drugs given to transplant recipients is progressing well. In 2006, this work has included identification of the MRP2 liver transporter protein involved in the elimination of mycophenolate and its metabolites from the body. We are now developing methods to investigate genetic factors that may influence the activity of MRP2 and hence individual patient's dosage requirements and potential for interactions with other drugs.
- The influence of inter-subject genetic variability in a protein, called p-glycoprotein, on the rate at which some immunosuppressant drugs may cause damage to the transplanted kidney continues. Potentially, this work may enable early genetic identification of "at-risk" kidneys and better individualisation of immunosuppressant drug combinations in the future.
- In collaboration with Dr WH Betts (Rheumatology Unit), a new project has commenced investigating an alternate way of individualising drug therapy. Whilst this is also being considered overseas, it has not previously been considered in Australia. The aim is to develop measures of drug effects in target cells that would indicate the degree of immunosuppression a transplant patient might have, rather than the long established practice of measuring the concentration of the drugs in the blood stream and then assuming that this is predictive of drug effect at the cellular level where the drug action occurs.

Staff

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Postgraduate Students
PhD Candidates

B Davies BSc(Hons) "Metabolism and enantiomer selectivity of the antianginal agent perhexiline" (University of Adelaide)

IS Westley BMedLabSc "Drug interactions involving mycophenolic acid and cyclosporin" (University of South Australia)

D Plevin BSc(Hons) "Role of the multi drug resistance (MDR1, ABCB1) gene in determining lymphocyte function and adverse drug reactions following renal transplantation or haematopoietic stem cell transplantation" (University of Adelaide)

OH Corso BSc(Hons) "Optimising liver function following resection for colorectal liver metastases" (University of Adelaide)

MSc Candidates

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Honours Students

J Licari, BSc "Effects of the (+)- and (-)-enantiomers of perhexiline on HepG2 cell growth"

Grants

SA & NT Islet Transplantation Program team. Juvenile Diabetes Research Foundation collaborative grant (total \$723,618 in 2006), including Clinical Pharmacology project: "Individualisation of immunosuppressant drug therapy: Improving clinical outcomes through scientific knowledge in islet transplant recipients". For full list of Investigators, see Renal Unit grants.

Freemason's Medical Research Supplementary Scholarship (\$5,000 2006) Davies B.

MF & MH Joyner Scholarship in Medicine (\$19,809 2006) Davies B.

University of Adelaide Faculty of Health Sciences Divisional/TQEH Research Foundation Postgraduate Scholarship (\$8,811 2006) Plevin D.

TQEH Research Foundation Honours Scholarships (\$4,000 2006) Licari J.

Acknowledgements

The Department acknowledges the support of other departments/units at TQEH to enable collaborative projects to be undertaken, the patients who freely consent to assist with our research projects, as well as the support of the TQEH Research Foundation and University departments.



Dr Warren Weightman

Dermatology Unit

Research Focus

- Clinical trials of new treatments for basal cell carcinomas of the skin

Overview

The Dermatology Unit assesses clinical skin disorders at The Queen Elizabeth Hospital (TQEH) in both outpatients and inpatients and teaches medical students, dermatology registrars, general practitioners and the other doctors employed at TQEH. The Dermatology Unit is also involved in clinical research with an emphasis on different methods of treatment of sun damage and skin cancer. Dr Warren Weightman is a board member of the Australian Society of Dermatological Research.

We have been involved in three studies during 2006.

The first is a five-year multi-centre Phase III trial using photodynamic therapy with Metvix 160mg/g cream in the treatment of high-risk basal cell carcinomas. This was the final year of this study with the last patients seen in February 2006.

The second study is a five-year, multi-centre, Phase III trial using Imiquimod (Aldara) cream in the treatment of superficial basal cell carcinomas. This was the final year of the trial with the last patients seen in February 2006.

The third study is in association with the Renal Unit of TQEH. This is a randomised, open-label study to compare the rate of new non-melanoma skin cancer in maintenance renal allograft recipients converted to a Sirolimus-based regimen versus continuation of a Calcineurin Inhibitor-based regimen (Protocol No: 0468HI-407-AUS).

The Department is looking at doing further clinical trials in the future.

Staff

Head of Department

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A Singla MBBS

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J Williams BSc Gen(Hons)

Endocrinology Unit

Research Focus

- Health care delivery
- Development of efficient strategies to diagnose and monitor diabetes and osteoporosis

Overview

Our major research emphasis focuses on health care delivery and the development of efficient strategies to diagnose and monitor diabetes and osteoporosis. Support for our research has come from a wide range of government and private organisations.

On the clinical front we are reviewing our data on the status of people with diabetes who attend the unit's Diabetes Assessment Clinic. This clinic provides a "one stop shop" checking for predisposition to diabetes, risk factors for complications, the complications themselves and current therapy. We hope to identify the important targets that are being missed and the tools which could reduce this risk and the incidence of complications in future. At the same time we are evaluating strategies to prompt and improve diabetes management by the general practitioners that refer patients for assessment. If successful we will broaden the audience for these prompts on diabetes care and the areas they cover.

In 2006 we continued the North West Adelaide Health Study in collaboration with TQEH Respiratory Medicine Unit, the Epidemiology Unit, Department of Health and the University of South Australia. We are studying a representative sample of residents in north west Adelaide, checking for risk factors and early indicators of health problems, especially diabetes and cardiovascular and respiratory disease. The original cohort was first assessed in 2000 and is being reassessed to give longitudinal information on health status, changes in health status and associations with these changes. Alongside the quantitative data the University of South Australia team are assessing qualitative information including quality of life and the individual responses to changes in health status. These studies will give us data on the factors associated with improved, stable or worsening health status and ideas on how medical and self-care and quality of life can be improved.

Another epidemiological project has been as the SA Centre for the National Diabetes Study, which is part of the National Diabetes Strategy. In 2006 we have been following up this cohort to document their progress since 1999/2000.

Osteoporosis and associated fractures are a major cause of preventable disability and dependence for South Australians and a major cost to the community. Our good links with the community organisation Osteoporosis Australia, the Royal Australian College of General Practitioners and the Divisions of General Practice enable us to review the management of osteoporosis in the community. There are now osteoporosis education and awareness programs in the western and northern metropolitan areas targeting those with osteoporosis, their health professionals and the general community.

We now have a dual Xray absorptiometer (DXA) scanner at the Lyell McEwin Hospital to meet the needs of the Northern Metropolitan area. We are working with Osteoporosis Australia to make osteoporosis a state health priority and to develop a strategic plan to reduce its impact in South Australia. We are also part of a demonstration project to prevent re-fracture after a critical fracture. If successful this program could become standard practice in South Australia.

Our Clinical Trials Centre goes from strength to strength with recent research into new insulin therapy, cardiovascular benefits of weight loss and sibutramine, prevention of diabetic retinopathy and new oral hypoglycaemic agents. 2006 was a good year for publications and presentations with several of the group presenting at national and international conferences – check against the presentations. As before our group is well represented on state and national committees relating to diabetes and osteoporosis in South Australia and nationally.

Staff

Director

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Associate Physician (Clinical Chemistry Department)

CG Beng MBBS MRC PATH MAACB

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(Diab Education & Management)
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C Shillabeer RN DipAppSC (Nsg) BN
F Whaley RN RM DipAppSC(Nsg) GradDip(Mid)
C Strongylos BSc (Hons) MND

Diabetes Centre Nurses

T Willson RN BNg (Hons) Grad Cert Health: Diab Man and Ed CDE
L Pinto RN CN
D Barrow RN
M Ross RN BNG Grad Cert (Renal) Grad Cert (Diab Ed) CDE Cert for
Workplace Ed & Training

Podiatry Service

D Brown DipAppSc Nursing BappSc Podiatry
D Filipak BappSc Podiatry
M Kotatis BappSc Podiatry

Dietitians

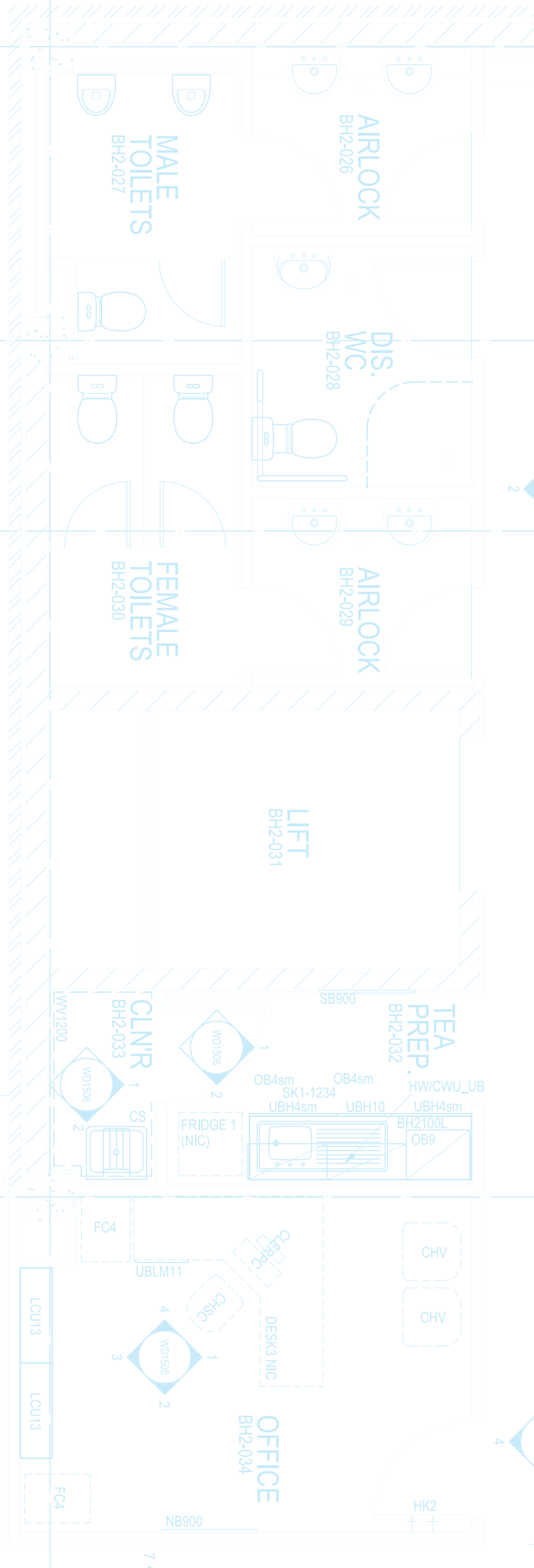
M Carapetis BHSc MND
C Stanton BSc DipEd MND

Diabetes Outreach

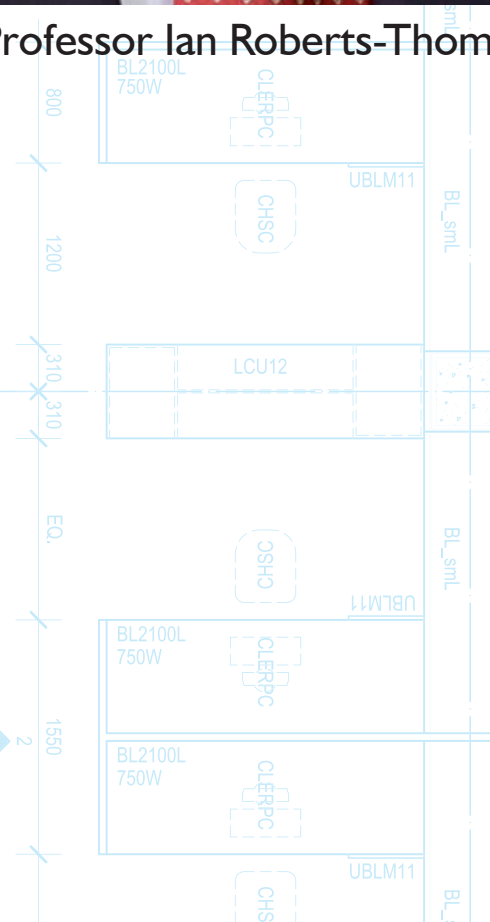
J Giles Grad Cert (Diab Ed), MN, CDE
P Grierson RGN, MHN, BNg, RN-CDE
L Drew RN Grad Cert (Diab Ed) CDE
C Gilbert BA (Hons)
B Cummins

Administration

L Roberts
S Schirmer
J Grimsey
C Read
V Watson
A Gazzard
J Cocks



Professor Ian Roberts-Thomson



Gastroenterology Unit

Research Focus

- Growth and immunity in the small bowel
- Prevention of small bowel inflammation that occurs after chemotherapy for cancer
- Genetic susceptibility to gastrointestinal disorders
- Evaluating the use of capsule endoscopy for the diagnosis of small bowel disorders

Overview

There are on-going research projects related to bowel function, capsule endoscopy and genetic susceptibility to gastrointestinal disorders. The largest program is supervised by Dr Adrian Cummins and involves the development and immune function of the lining of the small bowel. One area of interest is the role of the Wnt/beta catenin pathway in the promotion of cell division and early growth of the small intestine. Another project involves a possible deficiency of immunoregulatory cells in inflammatory bowel disease and coeliac disease. Studies on one of these immunoregulatory cells (NK T-cells) has largely been completed and is the major theme of the PhD thesis that has been submitted by Randall Grose. A second immunoregulatory cell (CD4 CD25 Foxp3, T-cell) is currently being investigated by Nicola Leung in the second year of her PhD program. Other projects linked to the function of the small bowel involve tight junctions between epithelial cells and the detrimental effects of cancer chemotherapy on the absorption of nutrients.

In the clinical area, studies are evaluating histological and other criteria for the diagnosis of coeliac disease and the effect of coeliac disease on bone density and susceptibility to fractures. These studies are being performed with the help of our two registrars, Dr Edward Teo and Dr Basile Alexander, and abstracts have been submitted for the Meeting of the American Gastroenterological Association in May 2007.

Clinical studies related to the use of wireless capsule endoscopy are largely being undertaken by Dr Ilmars Lidums. One study is examining whether capsule endoscopy is helpful for the diagnosis of coeliac disease and whether this technique can be used to diagnose the length of small bowel inflammation in patients with coeliac disease. Preliminary results indicate that most patients with coeliac disease have changes in the upper small bowel that can be readily identified by capsule endoscopy. Whether this technique can also be used in patients with suspected coeliac disease remains unclear.

Two other studies are currently being undertaken in relation to capsule endoscopy. One of these is examining the clinical characteristics of patients where the capsule fails to traverse the entire small intestine prior to running out of battery power (average battery life is 8 hours). If these patients can be identified prior to the procedure, it may be helpful to use a prokinetic agent such as metoclopramide to enable the capsule to traverse the entire small bowel. Another collaborative research project with Dr Tharshan Vaithianathan, Centre for Advanced Manufacturing Research, University of South Australia, is looking at new ways to track intestinal capsules and to maintain power in capsule batteries.

The final project involves genes that may increase susceptibility to gastrointestinal disorders, particularly inflammatory bowel diseases such as Crohn's disease and ulcerative colitis. Over the past 12 months, we have been examining a series of cytokine genes that may either promote inflammation or inhibit the inflammatory response. Of particular interest is the potential role of a variant gene of interleukin-5 that appears to be associated with ulcerative colitis. Interleukin-5 is present in relatively high concentrations in bowel mucosa and appears to influence the function of some inflammatory cells, particularly eosinophils. A paper on this project will be published in 2007.

Dr Adrian Cummins and Ms Wendy Uylaki have also been involved with the planning and detailed design of the new research building. Dr Cummins has been appointed as Deputy Chair of the Management Committee. Dr Fiona Thompson will be leaving our Department in the near future to undertake a new career as a secondary science teacher. We thank her for her significant contribution over 17 years.

Staff

Director

IC Roberts-Thomson MD FRACP

Senior Consultants

AG Cummins BSc(Med) MD PhD FRACP

I Lidums PhD FRACP

Honorary Consultant

DMK Keefe MD FRACP

Hospital Scientist

WJ Uylaki BSc(Hons)

Post-Doctoral Scientist

FM Thompson BSc(Hons) PhD

Technical Officer

GJ Goland Cert App Sc(ML)

Postgraduate Scholars

J Bowen "Expression of BCL-2 Family Members in the Small and Large Intestine"

R Grose "Deficiency of NK-T Cells in Coeliac Disease and Crohn's Disease"

N Leung "Deficiency of Immunoregulatory Cells in Inflammatory Bowel Disease"

J Fauser "The Effect of Probiotics on the Small Intestine"

Grants

Channel 7 Children's Research Foundation "Investigation of Wnt/b-catenin signalling as a determination of crypt fission during postnatal growth of the small intestine" (\$35,000 2006-2006-07, Cummins, A.

Collaborations

Studies on the mouth and the small and large bowel are being conducted in collaboration with colleagues at the:

- Royal Adelaide Hospital and Hanson Institute (A/Prof D Keefe, Dr R Gibson);
- Adelaide Dental Hospital (Dr R Logan);
- Women's and Children's Hospital, Adelaide (Professor G Davidson, Dr D Moore);
- Royal Children's Hospital, Melbourne (Prof A Catto-Smith and A/Prof D Cameron);
- Sydney Children's Hospital (Dr A Day);
- Child Health Research Institute (Dr I Penttila, Dr G Sander) and
- Discipline of Agriculture, Roseworthy University of Adelaide Campus (Prof G Howarth).

Acknowledgements

The Gastroenterology Unit wishes to thank the Channel 7 Children's Medical Research Foundation of SA, The Queen Elizabeth Hospital Research Foundation and the University of Adelaide for their support of research projects.

Gynaecology

TQEH Department of

Overview

Historically the Department's two principal areas of research activity have been minimal access surgery and infertility. Past highlights of this research include the clinical development of the Essure contraceptive implant (Professor John Kerin and Dr Munday) and many IVF related break-throughs. However, with the relocation of the IVF unit from TQEH to Fullarton and the departure of the University Research Centre for Reproductive Health (RCRH) from TQEH, the Department's research focus has now changed. Furthermore, demographic changes in the western suburbs have caused a shift in clinical workload from issues faced by young women (obstetrics, infertility) to problems faced by "baby boomers" (genital prolapse and urinary incontinence). In recognition of this demographic change, the Department of Gynaecology has appointed Dr Chris Barry as a new full time specialist gynaecologist in urogynaecology from January 2006. Dr Barry was previously Senior Lecturer in Obstetrics and Gynaecology at James Cook University, Queensland.

Within the last 12 months the Department has been involved with the completion of two research projects with significant implications for patient's health. Dr Tremellen, in conjunction with Repromed and the RCRH, has developed a novel antioxidant therapy for male infertility. This medication was tested in a placebo controlled randomised control trial and found to double pregnancy rates in the IVF program. Some of the laboratory work for this trial was conducted at TQEH. This new therapy (Menevit) is going to be marketed by Bayer Australia and will hopefully be exported worldwide within 1-2 years. Dr Dharma Lekamge has recently completed studies showing that a blood hormone (Anti-Mullerian Hormone) can predict a woman's chance of pregnancy before she enters fertility treatment. This test also helps identify premature "aging" of the ovaries so women are in a better position to decide if they can delay having children to pursue career goals.

During 2006, Dr John Miller has been involved in recruiting patients for the Australian National Ovarian and Endometrial Cancer Study. This study involves collection of tissue from cancer patients together with demographic data. It is hoped that

Dr Kelton Tremellen

the correlation of cancer biology with demographics will help delineate the cause of these cancers and lead to the development of novel therapies for gynaecological malignancy.

Dr Singla has been involved in a prospective study to develop new biochemical markers of genetically abnormal pregnancies. She has been collecting blood samples prior to amniocentesis and will use these samples to correlate genetic abnormality in the fetus with biochemical changes in the blood. It is hoped that this will lead to more sensitive and specific non-invasive tests for fetal genetic abnormality.

Several new projects are presently under development. Dr Barry is in negotiation with a multi-national pharmaceutical company to test a new therapy for interstitial cystitis, a painful bladder condition afflicting many women. Drs Barry and Munday will be coordinating the QEH arm of a multi-centre prospective randomised control trial of vaginal mesh repair for the correction of cystocele (MAP study). Dr Juneja has recently gained funding from the Australian Gynaecology Endoscopy Society to investigate the role of hysterectomy in prolapse repair. Finally, Drs Tremellen and Dr Munday are about to commence a study investigating a new non-invasive test for endometriosis.



Haematology and Medical Oncology

Combined Departments of

Research Focus

- Further understanding of the mechanisms underlying solid cancers and haematological disease, particularly myeloproliferative disorders and leukaemia.
- Development of new cancer diagnostic assays
- Identification, development and clinical trial of new therapeutic agents for the treatment of these diseases

Overview

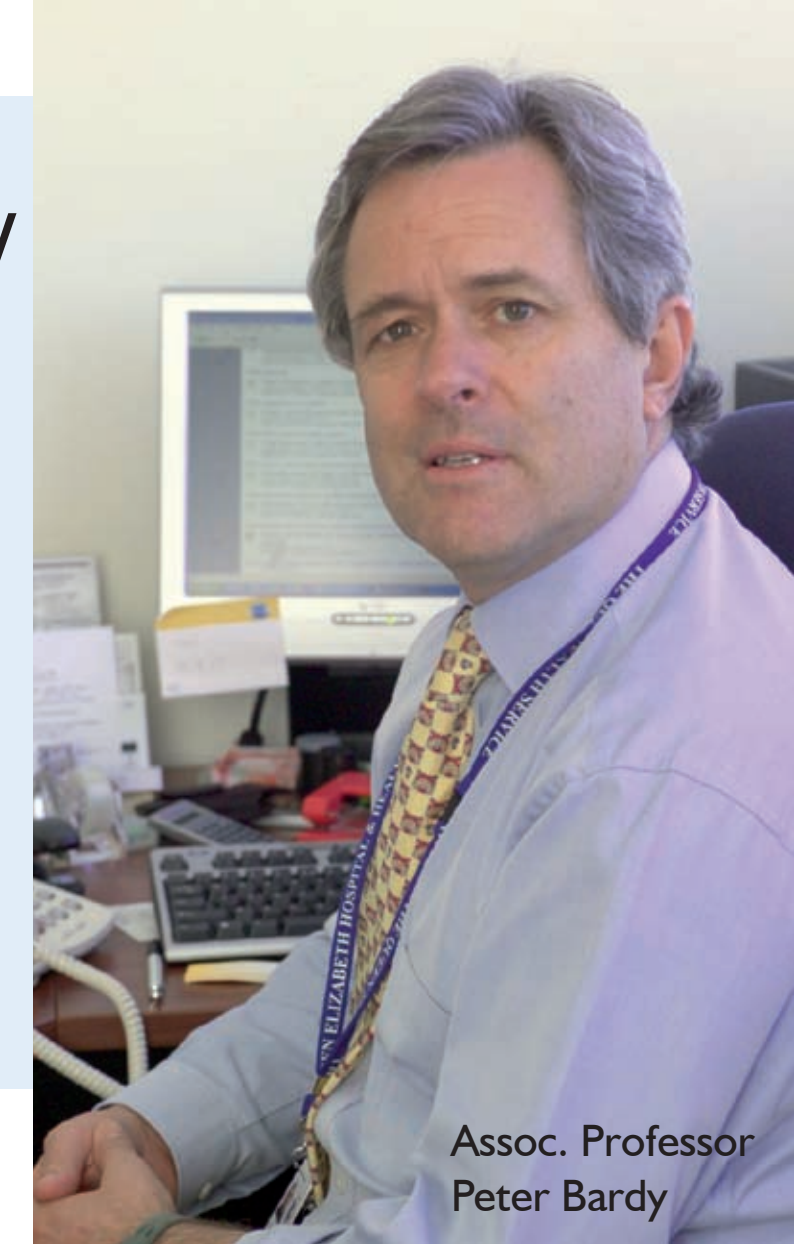
Laboratory-based Studies

Project 1: Molecular genetic approaches to identify lesions in myeloproliferative disease (A/Prof R D'Andrea)

We have focused on the myeloproliferative disorder (MPD) Polycythemia vera (PV), a hematological disease in which the bone marrow produces increased numbers of several haemopoietic cell types (red blood cells, white blood cells and platelets). This disease is of particular interest to us as the multilineage effects are associated with a dys-regulation of haemopoietic stem cell growth and normal blood cell growth factor responses. An acquired mutation has been identified recently in a high percentage of PV patients. This mutation affects the activity of the intracellular signaling molecule JAK2 which plays a critical role in normal growth factor responses. We have confirmed that this mutation is present in 54 out of 56 PV patients in our cohort and we are now further investigating the properties of the mutant protein and focusing on identifying the lesion in the patients that do not have this common mutation. In addition we have isolated different haemopoietic cell-types from bone marrow and peripheral blood of several PV patients and shown that the mutation in JAK2 is acquired in a rare cell within the haemopoietic stem cell compartment.

Project 2: Australian Familial Hematological Cancer Study (AFHCS) (A/Prof R D'Andrea)

This project aims to develop a resource for research into the genetic basis of familial hematological malignancy. We predict that studies of families showing single gene inheritance for



Assoc. Professor
Peter Bardy

predisposition to hematological malignancies will facilitate the identification of the genes and mechanisms involved in the first steps of these cancers. This has been a remarkably successful approach to the identification of genes implicated in solid tissue cancers and this proposal is modelled on the successful program for establishing a resource of data and biological samples for use in research into familial breast cancer (KConFab). To date we have identified a number of South Australian kindreds with familial hematological malignancy, recorded pedigree data, collected clinical and demographic data about family members, and stored biological samples (blood, tissue) from both affected and unaffected family members. Having identified these families of interest, and excluded the involvement of known predisposition genes, we are now using sophisticated genetic approaches to identify new genes underlying the early events in hematological malignancy.

Project 3: Isolation of small therapeutic peptide molecules (Dr A Varelias, A/Prof R D'Andrea)

The identification of small peptide molecules for biologically significant proteins (mimetics) is a strategy for new drug design. It promises to reduce costs by overcoming the need to produce the relatively large and expensive recombinant proteins currently in clinical use. Importantly, mimetics are envisioned to be less immunogenic and will allow for the development of oral delivery systems, simplifying drug administration. We are developing new technology for isolation of small peptide molecules that have

Staff

Director

K Tremellen MB BS (Hons) PhD FRANZCOG CREI Grad Cert Mgmt Gynaecologist and certified sub-specialist in Reproductive Endocrinology and Infertility

Senior Consultants

D Munday MB BS FRANZCOG Gynaecologist with special interest in minimal access surgery/endometriosis

A Singla MB BS FRANZCOG Obstetrician and Gynaecologist

J Cook MB BS FRANZCOG Gynaecologist with special interest in endometriosis and minimal access pelvic floor repair.

J Miller MB BS FRANZCOG CGO Gynaecologist and certified sub-specialist in gynaecology oncology

R Norman MB BS MD FRANZCOG CREI Professor of Reproductive Medicine with special interest in menopause/reproductive endocrinology

C Barry MB BS MRCOG FRANZCOG Gynaecologist with a special interest in urogynaecology

Clinical Nurse Coordinator

S O'Toole RN RM

PhD Student

D Lekamge MB BS. "Role of the Transforming Growth Factor beta family in ovarian function". Supervisor K Tremellen.

Grants

Bayer Australia "Development of a novel therapy for male infertility" (\$92,000 2006) Tremellen KP.

Fertility Society of Australia "Women's attitudes to reproductive ageing" (\$5,000 2006) Tremellen KP, de Lacey S.

Australian Gynaecological Endoscopy Society "Investigation of the role of hysterectomy in prolapse surgery" (\$5,000 2006) Juneja M.

Awards

D Lekamge "Role of AMH in reproductive function" Dr Jack O'Loughlin Medal for best presentation at the State RANZCOG Registrars presentation night 2006.

J Cook "A Randomised Trial comparing Mirena and MEA in the treatment of heavy menstrual bleeding" Awarded Best Free Communication at the AGES/APAGE meeting, September 2006 (Sydney).

J Cook "Site-specific Pelvic Floor Repair: Outcome at 2 years" Awarded Best Free Communication at the AGES Annual Scientific meeting, May 2006 (Adelaide).

K Tremellen "A RCT investigating the effect of a novel antioxidant treatment on IVF-ICSI pregnancy outcome" Best clinical presentation, Fertility Society of Australia 2006. Awarded exchange lecture to the British Fertility Society (\$5,000 travel grant).

bioactivity mimicking that of important growth factors used in cancer therapy. Such technology is also applicable to the generation of molecules that have functional activity in many validated cellular assays. We have built this technology around retroviral-based functional screens and have engineered the appropriate retroviral vectors and cell lines to allow secretion of peptide molecules and assay for growth factor activity. As proof-of-principle for this approach we are generating a library of secreted cyclic 14mers and performing a screen to isolate a small peptide agonist of the erythropoietin receptor. If successful this approach will be adapted to other biological screens, allowing identification of lead molecules of therapeutic importance.

Project 4: Discovery of protein biomarkers for diagnostic and therapeutic applications in colorectal cancer (CRC) (Dr J Hardingham)

Patients diagnosed with early-stage bowel cancer may be considered cured by surgery alone, yet up to 30 per cent of this group develop recurrent and metastatic disease after their surgery. This is thought to result from undetected dissemination of tumour cells. A study conducted by the Molecular Oncology Laboratory used magnetic microbeads labelled with an antibody against the tumour cells, then a highly sensitive molecular technique (RT-PCR) to detect tumour-specific RNA markers to identify disseminated tumour cells. The study showed that patients who were marker positive for disseminated cells in post-resection lavage samples were 6 times more likely to relapse and this was independent of other established risk factors. The markers used in this study identified a subgroup of early stage patients at increased risk of relapse post-resection for primary colorectal cancer. However there were still problems with sensitivity and specificity of the markers. To search for new biomarkers for bowel tumour cells, we used laser micro-dissection of bowel tissue removed at operation to select only the tumour (epithelial) cells or normal epithelial cells, and compared protein expression between the two. The comparison of the proteins expressed was achieved by using a novel two-dimensional fluorescence gel electrophoresis technique (2D-DIGE) and differential expression analysis software. Five proteins highly up-regulated in the tumour cells but not normal cells have been identified by mass spectrometry and these will be investigated for use as tumour biomarkers or therapeutic targets.

Project 5: Identification of plasma proteins as biomarkers for the early detection of colorectal cancer (Dr J Hardingham)

Pre-symptomatic detection of CRC requires sensitive detection of appropriate protein biomarkers that have been secreted into the bloodstream by the tumour and are thus detectable in blood plasma. Carcinoembryonic antigen (CEA) is an example of such a protein that has traditionally been used as a serum marker of disease activity in CRC. However this marker lacks specificity and is only useful in a proportion of CRC patients, in particular those with more advanced disease. Additional biomarkers, detectable in blood, are needed for the early detection of CRC in a high-throughput screening setting. Due to the large dynamic range in abundance of plasma proteins, it is necessary to deplete plasma of the most abundant proteins so that proteins of lower abundance can be detected. During this year pre- and post-operative plasma samples from four early stage colorectal cancer patients were depleted of highly abundant plasma proteins and the remaining proteins were separated using two

protein expression analysis platforms: the ProteomeLab™ and 2-D DIGE. Differentially expressed proteins are being identified using mass spectrometry and potential biomarker proteins will be investigated for use in an early diagnostic screening blood test for colorectal cancer.

Project 6: Eph Receptor Biology (Dr S Stephenson)

The tumour associated protein EphB4 continues to be the main research interest of the Witchery Breast Cancer Research Laboratory. The overall aim of this project is to determine whether targeting a critical epitope in the EphB4 extracellular domain with specific antibodies may be a useful therapeutic option for human cancers that over-express EphB4. Ten different monoclonal antibodies targeting a defined epitope in the extracellular domain of human EphB4 have been produced. Purification of these is under way and once purified and quantified, these will be used in several cell-based assays to identify antibodies which best negatively regulate tumour cell growth. We also have received funding to produce antibodies on a larger scale for in vivo tumour assays (performed with MAbSA and VivoPharm, Thebarton, South Australia) and using an in-house model of breast cancer.

In parallel with these pre-clinical studies we are characterizing the epitope for these bioactive antibodies, which falls within an Eph/ephrin interface. Finally we are extending these studies to human prostate cancer. In particular, we are collaborating with Professor Wayne Tilley to use the TRansgenic Adenocarcinoma of the Mouse Prostate (TRAMP) mouse that spontaneously develops prostate cancer on puberty. We are investigating EphB4 expression in this model to determine if it mimics that seen in human tumours and therefore whether the TRAMP mouse can be used as a model for strategies targeting EphB4.

Project 7: Detection of occult disseminated tumour cells and tumour DNA (Dr S Stephenson and Dr M Raynor in collaboration with A/Prof A Dobrovic, Peter MacCallum Cancer Centre).

This project has focused on the detection of occult disseminated disease in patients with early stage breast cancer. We are studying the significance of circulating tumour cells in patients with early stage operable breast cancer and monitoring the presence of occult disease (circulating tumour cells and tumour DNA in the plasma) at regular intervals after surgery. To isolate circulating tumour cells we make extensive use of the Immunobead RT-PCR method, which was previously established in this Department. Blood samples from over 100 patients have been collected for immunobead harvesting of tumour cells and preparation of plasma DNA. The RT-PCR method has now been adapted for a high-throughput platform to allow quantitation, faster processing of samples and clear distinction between specific and background amplification.

The utility of methylation as a tumour marker has been demonstrated by several studies and we have established methods for detecting DNA originating from tumour cells and for analysing several genes, previously shown to be commonly methylated in breast cancer cells. Four different methods for extracting DNA from plasma have been compared and probes designed for multiple genes of interest and internal controls. We will use quantitative methylation-specific PCR (Q-MSP) to measure the extent of gene methylation.

Staff

Chair of the combined Departments of Haematology and Medical Oncology and Head of Clinical Haematology
A/Prof PG Bardy MBBS FRACP FRCPA

Head of Clinical Oncology
KB Pittman MBBS MD FRACP

Staff Specialists/Clinical Trials
RM Green MBBS FRACP FRCPA
U Hahn MD FRCPA
S McRae MBBS FRACP FRCPA
JE Norman MBBS FRACP
WK Patterson MBBS FRACP
TJ Price MBBS FRACP
K Robinson MBBS FRCPA FRACP

Chief Medical Scientist and Laboratory Head
RJ D’Andrea PhD

Principal Medical Scientist and Group Leader
JE Hardingham PhD

Senior Research Fellow and Group Leader
SA Stephenson PhD

Postdoctoral Research Fellows
MP Raynor PhD
A Varelias PhD

Research Assistant
J Wrin BSc

Clinical Trial Managers
S Yeend EN

Clinical Trial Study Coordinators
G Dymmott
L Pirc BBiotech(Hons)
J Williams BSc Gen(Hons)

**Postgraduate Students
PhD Candidates**
G Arentz BSc(Hons)
E Douglas B Hlth Sc(Hons)
C Kok BSc(Hons)
Y-C Lee B Biomed Sc, BHLth Sc(Hons)
C McIver B Hlth Sc(Hons)
J Perren B Biomed Sc(Hons)

Masters Candidate
E Roscioli B Hlth Sc(Hons)

Honours Students
A Laidlaw BSc “Comparison of the ProteomeLab™ PF-2D system with 2-D DIGE for the analysis of differential protein expression in colorectal cancer”

A Gysbers BSc “Characterisation of HGFR/c-Met as a Candidate Biomarker in colorectal cancer”

Vacation Student 2006-2007
Z Deng

Thesis Accepted
C McIver: PhD thesis accepted November 2006 (School of Molecular & Biomedical Science) “Candidate tumour markers and potential therapeutic targets in colorectal cancer.”

- Collaborators**
1. A/Prof S Barry, Department of Paediatrics, University of Adelaide, Adelaide.
 2. Dr T Chataway, Flinders Proteomic Facility, Flinders University
 3. A/Prof Alexander Dobrovic, Molecular Pathology Research, Department of Pathology, Peter MacCallum Cancer Centre, Melbourne
 4. Dr J Gecz, Cytogenetics Division, Women’s and Children’s Hospital, Adelaide
 5. Prof T Gonda, Centre for Immunology and Cancer Research, University of Queensland, Brisbane
 6. Mr P Hewett, Colorectal Surgical Unit, Department of Surgery, The Royal Adelaide and Queen Elizabeth Hospitals, Adelaide
 7. Dr I Lewis, Department of Haematology, Institute of Medical and Veterinary Science, Adelaide
 8. Prof G Nolan, Stanford University, USA
 9. Mr N Rieger, Colorectal Surgical Unit, Department of Surgery, The Royal Adelaide and Queen Elizabeth Hospitals, Adelaide
 10. Dr H Scott, Walter and Eliza Hall Institute, Victoria
 11. Drs W Tilley and L Butler, Dame Roma Mitchell Research Laboratory, Hanson Centre, Adelaide
 12. Prof LB To, Department of Haematology, Institute of Medical and Veterinary Science, Adelaide
 13. Mr D Walsh, Breast/Endocrine Unit, Department of Surgery, The Queen Elizabeth Hospital, Adelaide
 14. Ms M Wallwork and Mr J Terlett, Adelaide Microscopy

Awards

S Stephenson. Woman of Distinction Award for Medical Research by the Asia Pacific Business Council for Women, South Australia.

S Stephenson. Bragg Initiative, Government of SA, Nominated as a female leader in the field of science, engineering and technology.

Grants

Adelaide Integrated Bioscience Laboratories (AIB Labs), Research Infrastructure Fund Grant (Adelaide Microarray Facility) (\$88,363 2006-2007) Goodall G, Richards R, Rudzki Z, Koblar, S, Keefe D, Kuss B, D’Andrea R.

Australian Red Cross Blood Service Research Grant “The role of immunoregulatory and host defence gene polymorphisms in determining outcome following allogeneic haemopoietic stem cell transplantation” (\$76,000 2005-2006) Heatley S, Bardy PG, Mullighan C, Doherty K.

Australian Red Cross Blood Service Research Grant “The relationship of cytokine gene polymorphisms to circulating levels of cytokine and outcome following sibling allogeneic haemopoietic stem cell transplantation (HSCT)” (\$30,000 2006-2007) Bardy PG, Mullighan C, Heatley S, Doherty K.

Australian Red Cross Blood Service Research Grant “The role of natural killer cells and killer cell immunoglobulin-like receptors in determining outcome following allogeneic haemopoietic stem cell transplantation” (\$22,600 2006-2007) Heatley S, Mullighan C, Doherty K, Bardy PG.

Australian Red Cross Blood Service Research Grant “A comparison of blood product usage between myeloablative and non-myeloablative sibling allogeneic haemopoietic stem cell transplant (Allo-HSCT)” (\$30,000 2006-2007) Bardy PG, Robinson K.

Channel 7 Children’s Research Foundation, Early Career Grant “Investigation of the role of ephrin-B1 in osteosarcoma tumour-genicity and metastasis”. (\$15,000 2006) Varelias A, D’Andrea R, Evdokiou A, Stephenson S.

Honda Foundation Equipment Grant (\$11,500 2006) Hardingham JE.

Leukemia and Lymphoma Society (USA) “Identification of growth factor receptor mutations in Polycythemia Vera”. (US\$130,000 2006) 2004-2006, D’Andrea RJ, Gecz J, Gonda TJ, Bardy PG, To LB, Lewis ID.

NHMRC “Detection of occult disseminated tumour cells and tumour DNA in early stage operable breast cancer patients” (\$73,400 2006) 2005–2007, Dobrovic A, Henderson M, Waring P, Stephenson SA.

NHMRC Project Grant #351463 “Identification of oncogenes in myeloid leukaemia by retroviral expression cloning” (\$190,000 2006) 2005-2007, Gonda T, D’Andrea RJ.

National Health and Medical Research Council “Role of β -catenin and its regulator FAM in haemopoietic stem cell function” (\$120,333 2006) 2004-2006, Wood S, D’Andrea R, Simmons P.

NHMRC “Dissecting FLT3 signalling in acute myeloid leukaemia” (\$190,000 2006) 2007-2009, D’Andrea RJ, Gonda TJ.

Novartis “Monitoring residual disease in prostate cancer patients using RT-PCR” (\$200,000 2006-2007) Stephenson S, Hardingham J, D’Andrea R, Bardy PG, Pittman K.

Perpetual Trustees (The Patrick Brennan Trust, The Bellhaven Foundation, The EB Myer Charity Fund) Equipment grant for purchase of Fluorometer/Luminescence Reader (\$54,000 2006) Stephenson SA.

Stem Cell Technologies Inc. “Trans-differentiation of cord blood stem cells into T cells with regulatory phenotype” (\$182,000 2006) D’Andrea R, Barry S.

The Cancer Council SA Travel Grant for Lorne Proteomics Conference (\$860 2006) Hardingham JE.

The Queen Elizabeth Hospital Research Foundation/ BioInnovation SA Business Development Initiative Grant (BenEphex Biotechnologies) “In vivo testing of EphB4 as a target for monoclonal antibody therapy against epithelial cancers” (\$120,000 2006) Stephenson SA.

The Queen Elizabeth Hospital Research Foundation Equipment grant for purchase of antibody purification equipment (\$6,850 2006) Stephenson SA.

The Queen Elizabeth Hospital Research Foundation “Application of laser capture microdissection and proteomics to identify biomarkers of colorectal cancer” (\$17,500 2005-2006) Hardingham JE, Hewett PJ.

The University of Adelaide, Proof of Commercial Concept Grant “Trans-differentiation of cord blood stem cells into T cells with regulatory phenotype” (\$30,000 2006) Barry S, D’Andrea R.

Acknowledgements

Haematology - Oncology would like to thank AIB Labs, the Australian Red Cross Blood Service, Channel 7 Children’s Medical Research Foundation, Honda Foundation, Perpetual Trustees, The Cancer Council of South Australia, The Queen Elizabeth Hospital Research Foundation, the National Health and Medical Research Council, Witchery, Leukemia and Lymphoma Society (USA), Stem Cell Technologies Inc and The University of Adelaide for their generous support of this research.

Dr Sandy Peake



Intensive Care Unit

Research Focus

- Sepsis studies
- Nutrition studies
- Outcome studies

Overview

Sepsis Studies

Long term outcome in Sepsis

The study looking at long term outcome in sepsis has incorporated comparison with hospital (TQEH) patients, for a total cohort size of 2000 ICU patients and 60,000 hospital patients, enrolled over the period 1993-1999 and followed up for a maximum of 9.6 years. Innovative methodologies were used: calculation of a chronic comorbidity index (Charlson comorbidity score) for all patients using ICD-9 codes via electronic listings from the TQEH; estimation of relative survival of the cohorts compared with the Australian population using specific software routines in collaboration with the Centre for Population Studies, London School of Hygiene & Tropical Medicine, London (Andrew Sloggett). The study has been submitted to *Intensive Care Medicine*.

Outcome of sepsis presenting to the Emergency Department in Australia and New Zealand

1. The characteristics and outcomes of 7649 patients admitted to intensive care following presentation to the Emergency Department of Australian and New Zealand hospitals with sepsis or septic shock has been undertaken using data from the Australian and New Zealand Intensive Care Society (ANZICS) Adult Patient Database (APD). The data from this study and a prospective epidemiological study (ARISE, see below) are being used to provide information regarding feasibility and recruitment rate for a prospective,

multi-centre trial of Early Goal Directed Therapy. The multi-centre trial (under the auspices of the ANZICS Clinical Trials Group (CTG) and the Australasian College of Emergency Medicine) will be undertaken in collaboration with a group of investigators in the United States. Dr Peake is the chief investigator in Australia and New Zealand. The APD study has been accepted for publication in *Critical Care and Resuscitation*.

2. A 3-month prospective, multi-centre observational study (Australasian Resuscitation in Sepsis Evaluation; ARISE) examining the resuscitation practices and outcomes of patients presenting to the Emergency Department with severe sepsis has just been completed. The study involved 32 Australian and New Zealand hospitals. Dr Peake was the chief investigator for the multi-centre study. At TQEH, the study was performed with the collaboration of Dr Ken Ooi and the Department of Emergency Medicine.

Obligate Anaerobic Staphylococcus Septic Shock in Humans

The first described case report of infection with an obligate anaerobic staphylococcus aureus in a patient with septic shock has been published in the *Journal of Infectious Diseases*.

Pyroglutamic Acidosis

A case report describing pyroglutamic acidosis as a cause of severe metabolic acidosis in an elderly patient with sepsis receiving paracetamol and flucloxacillin has been published in the *Medical Journal of Australia*.



A Controlled Comparison of Eritoran Tetrasodium and Placebo in patients with Severe Sepsis

A multi-centre, international, industry-sponsored randomised, double-blind, placebo-controlled study. The purpose of this research study is to assess the safety and efficacy of an experimental drug called Eritoran tetrasodium (eritoran) in patients with severe sepsis. Eritoran tetrasodium belongs to a group of drugs called Lipid A antagonists. Previous studies have indicated that eritoran works by blocking the effect of toxic products and by reducing the production of inflammatory chemicals that can contribute during an infection to the symptoms of sepsis. The study will also measure how health care costs are affected by its use.

Community Acquired Pneumonia

A multi-centre, international, industry-sponsored randomised placebo-controlled clinical trial examining the role of tissue-factor pathway inhibitor in community acquired pneumonia commenced in January 2005, and is continuing.

Hospital Acquired Pneumonia

A multi-centre, international, industry-sponsored randomised placebo-controlled clinical trial comparing a new anti-microbial agent with standard therapy in gram-positive hospital-acquired pneumonia commenced in April 2005, and is continuing.

Nutrition Studies

Early Total Parenteral Nutrition

A multi-centre, level I randomised, controlled trial comparing early total parenteral nutrition to standard nutritional support in the critically ill patient was commenced in December 2006. The study is NHMRC-funded and is being performed under the auspices of the ANZICS CTG. Dr Peake is an associate investigator and member of the study Management Committee.

Monitoring in the Intensive Care

A study comparing different temperature measurement modes (axillary, tympanic, urinary and pulmonary artery) has been published in Critical Care Medicine. This was the largest study, in terms of patients and observations, ever published on this topic in the journal and showed that the most optimal measurement mode was urinary. The study used advanced statistical modelling with a random effects linear model.

Outcome Studies

Effect of body habitus on ICU outcomes

A prospective study of the effect of body mass index on 30-day and 12-month outcome in 500 critically ill medical and surgical patients was accepted for publication in Critical Care Medicine. The results demonstrated that obesity was not associated with poor outcome following ICU admission (and may, in fact, be protective).

Tight glycaemic control

An ANZICS CTG multi-centre NH&MRC-funded Australian and Canadian trial comparing 2 target ranges for blood glucose control in critically ill patients predicted to stay in ICU for longer

than 48 hours commenced in April 2005. Planned enrolment is 4000 patients in Australia and New Zealand and 2000 patients in Canada. To date nearly 3067 patients have been recruited.

Metformin associated lactic acidosis

A case-series study of 15 patients admitted to the intensive care unit in the last 5 years with life-threatening lactic acidosis associated with metformin use has commenced.

Prophylactic N-Acetyl Cysteine in contrast induced nephropathy

A randomised, double-blind placebo-controlled pilot study examining the role of NAC in the prevention of contrast-induced nephropathy in critically ill patients was completed in 2004. The manuscript for publication is currently being prepared.

Radiocontrast-induced nephropathy in ICU patients

A retrospective study examining the incidence of, and risk factors for, radiocontrast-induced nephropathy in ICU patients has commenced.

Elective abdominal aortic aneurism repair and acute lung injury

A retrospective study examining the incidence of, and risk factors for, acute lung injury following elective abdominal aortic aneurysm repair has commenced.

Sedative agents and weaning in ICU patients

An industry-sponsored multi-centre, international trial comparing 2 sedative agents was approved by Ethics of Human Research Committee. However, due to low recruitment throughout Australia, New Zealand and some US sites, recruitment was ceased in December 2006.

Outcome from Idiopathic Pulmonary Fibrosis

A retrospective study examining the outcome of patients with idiopathic pulmonary fibrosis admitted to ICU for respiratory failure has commenced.

Gentamicin and creatinine clearance

In conjunction with Dr Terry Jones (Pharmacy) a prospective observational study comparing various modes of creatinine clearance in ICU patients, including the clearance of gentamicin, has commenced.

The haemodynamic effects of intravenous paracetamol. Anecdotal observations by staff within the intensive care unit of hypotension following intravenous paracetamol administration has led to a prospective, observational study of the haemodynamic effects of intravenous paracetamol in 40 high-dependency patients (Dr Stewart Moodie). Patient enrolment has recently ceased and data analysis is underway.

Australia wide outcomes from ICU

Papers reporting (i) a decline in mortality of Australian and New Zealand Intensive Care patients over the period 1993-2003 (total patient population > 220, 000) and (ii) an increase in the ICU length of stay of these patients have been submitted to the journal *Critical Care Medicine*.

Effect of non-invasive ventilation on outcome of patients with acute pulmonary oedema

A meta-analysis demonstrating a decline in mortality and reduced incidence of subsequent mechanical ventilation with non-invasive ventilation in patients with acute pulmonary oedema was published in the *Lancet*.

Use of oximes in organo-phosphate poisoning

The use of oximes (pralidoxime) in organo-phosphate poisoning has been the subject of recent intense scrutiny and controversy. A meta-analysis has been published which suggested either a null or detrimental effect of these agent (oximes) was recently published in *Critical Care Medicine*.

Statistical methods

A comprehensive review of statistical methods in the biomedical sphere has been recently accepted for publication in Critical Care and Resuscitation (authors Dr JL Moran and Associate Professor PJ Solomon, School of Mathematical Sciences, University of Adelaide).

A review of the statistical methods used in recent trials of resuscitation after cardiac arrest was published in Critical Care and Resuscitation. Reviews of (i) generalised linear models in cost modelling in ICU and (ii) survival analysis techniques as applied to ICU patients have both been accepted in the Journal of Evaluation in Clinical Practice (authors Dr JL Moran and Associate Professor PJ Solomon, School of Mathematical Sciences, University of Adelaide).

Staff

Studies on the critically ill represent co-operative undertakings between the Nursing and Medical staff in both the Intensive Care Unit and the High Dependency Unit. Many thanks to our Research Coordinators Mr Jon Foote and Mrs Tricia Williams

Senior Director AR Peisach MB BS FRCA FANZCA FFICANZCA

Consultant Specialists

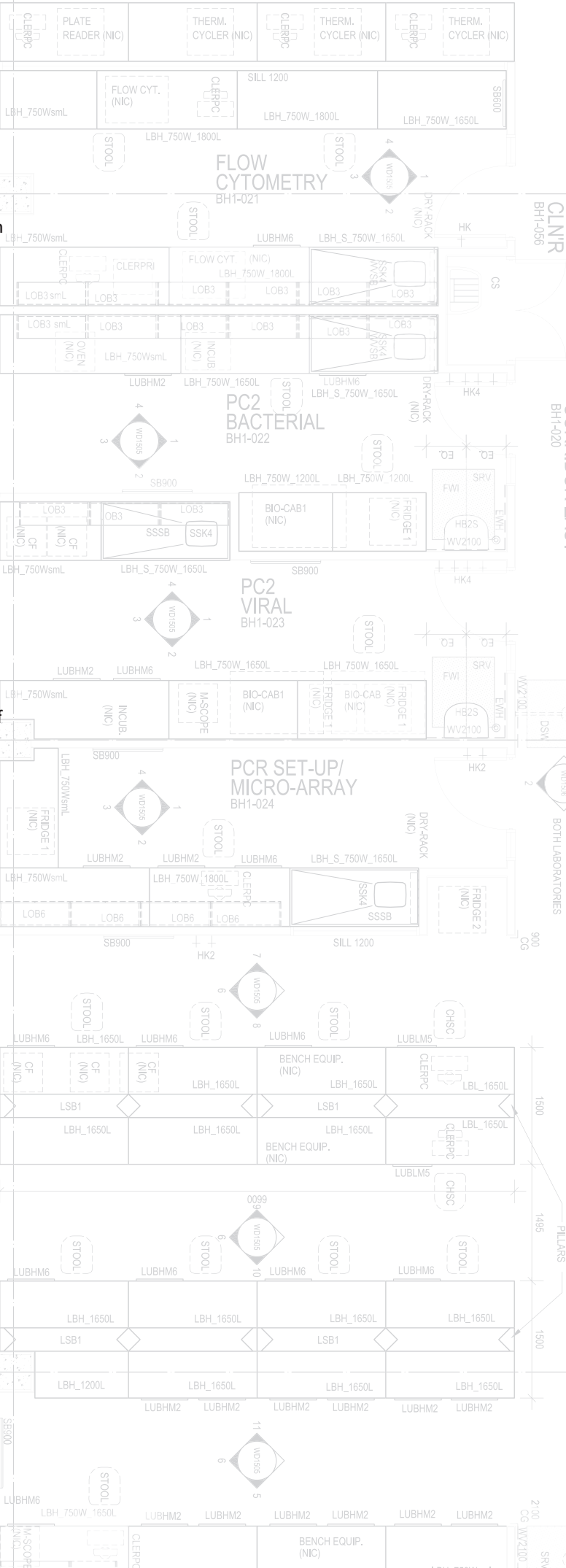
JL Moran MB BS FANZCA FRACP FJFICM MD
MS O’Fathartaigh MB Bch BAO FFARCS (Ire.) FFICANZCA
SL Peake BM BS BSc(Hons) FANZCA FFICANZCA PhD (Acting Director)
M Finnis MB BS FANZCA FFICANZCA

Registrars

JV Peter
J Polasek
H Tewari
P Rangappa
H Kothandan
V Biradar

Nurse Researchers

B Grealy RN RM Intensive Care Cert MN
J Phillips-Hughes RN Intensive Care Cert Grad Dip Nursing
A Lloyd RN Intensive Care Cert
J Foote RN Intensive Care Cert
M Walker RN Intensive Care Cert BN
K Clarkson RN Intensive Care Cert BN MN (Practice)
P Williams RN Grad Dip Intensive Care

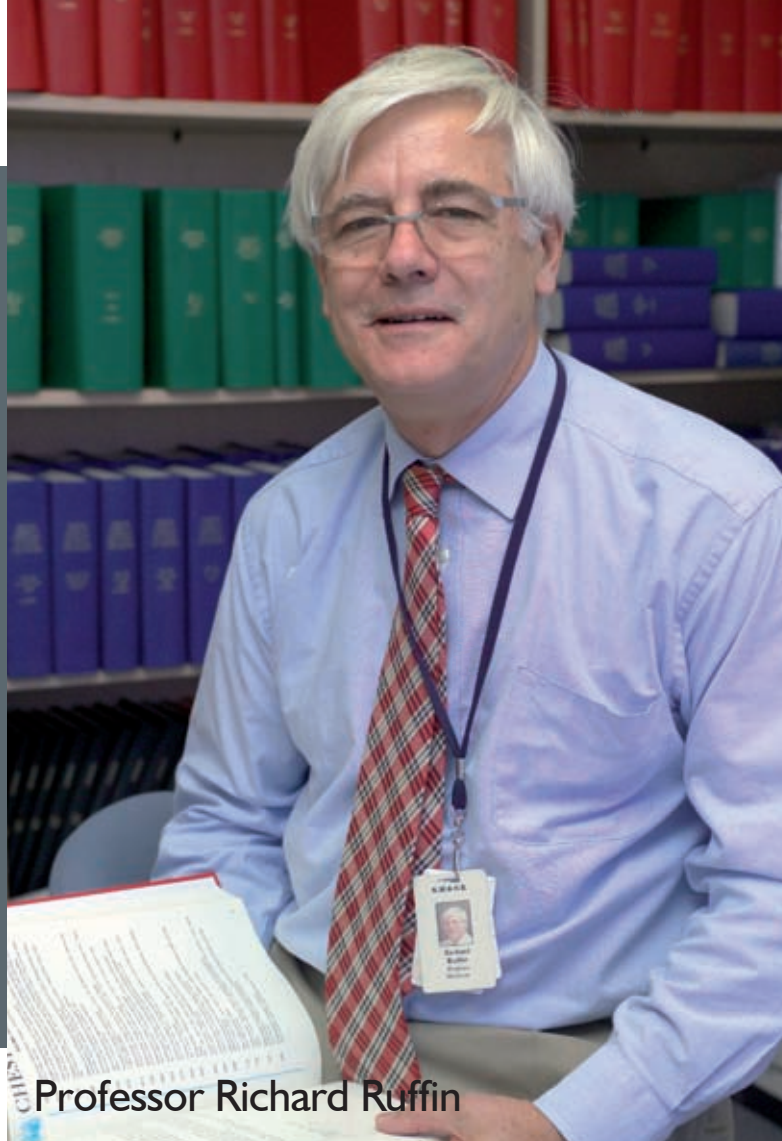


Medicine

University of Adelaide,
Discipline of

Research Focus

- Basic research studies of the physiology of zinc in the respiratory system
- Population research on chronic disease
- Patient safety and quality improvement
- Nutritional problems affecting older people
- Health Services and systems research
- Undergraduate and postgraduate assessment



Professor Richard Ruffin

miology, and continuing a population health study examining chronic diseases (diabetes, asthma, COPD, cardiac risk factors, renal disease) within the North Western Adelaide population. It is defining incidence, severity, undiagnosed disease prevalence, and the burden of disease in the population. A linked data set is available to facilitate this work. New directions of research include educational assessment at the undergraduate and postgraduate level.

A/Prof Bob Adams is continuing work on population health and chronic disease, with an increasing interest in health services and systems research. He was awarded an NHMRC Project Grant to examine the use of a diagnostic trial of therapy to diagnose asthma in older people. Recent work has involved examining the relationship of obesity to socio-economic determinants of health, under- diagnosis of chronic diseases, and difficulties in identifying and targeting of chronic airways disease in the population. Collaborations have been established with the School of Economics to investigate the costs of obesity. An ongoing Australian Research Council Discovery Grant is supporting work examining the social space of the interactions in the clinical consultation and its effects on chronic disease management. Recent data from the North Western Adelaide Cohort Health Study has demonstrated the risks of weight gain for development of hypertension in young adults and the under-treatment of cholesterol in the population. An additional feature of this round of data is a survey of individual perceptions of risk and effects on health and behaviour. A/Prof Adams is also involved in research in safety and quality, including the state - wide patient evaluation of hospital services. He

is commencing an in-hospital project utilising sophisticated IT clinical decision support systems, focusing on improving medication safety.

Dr Peter Zalewski and Dr Carol Lang continued their studies on the physiology of zinc in the respiratory system and in asthma, funded by an NHMRC project grant (2004-2006) with Professor Richard Ruffin and Dr Darryl Knight, and in collaboration with Dr Chiara Murgia (a visiting research fellow from the Institute for Food and Nutrition in Rome). The grant currently employs two research assistants Mary Leong and Sook-Ching Lee. One of our PhD students Dr Lata Jayaram is in the final stages of writing up a paper on the zinc-related aspects of this study. Dr Zalewski presented the zinc and asthma studies at Cell Signals 2006 in Luxembourg and he has been invited to present his work on a new assay for labile plasma zinc at an upcoming meeting in Bangladesh early 2007.

Dr Carol Lang has won a Peter Doherty NHMRC Fellowship to start in 2007 and was awarded an NHMRC Australian Biomedical Training Fellowship to continue her research into the roles of zinc in airway inflammation, and particularly chronic obstructive pulmonary disease. Dr Lang has established a strong collaboration with Prof Gary Anderson and Dr Rosa Gualano at the Departments of Pharmacology & Medicine at the University of Melbourne and the Cooperative Research Centre for Chronic Inflammatory Diseases. Implications for airway zinc, and the proteins that transport zinc in airway cells, are now being investigated in response to respiratory viruses, cigarette smoke and inflammatory cytokines. Dr Lang and Dr Zalewski are also working with Dr Toby Coates (Renal Unit) to investigate zinc transporters in pancreatic islets. In 2006, a joint NHMRC Equipment Grant/Queen Elizabeth Hospital Research Foundation funded real-time PCR machine enables us to expand our molecular studies of the proteins that transport Zn in cells.

Associate Professor David Wilson is employed in the Department of Medicine to contribute to several large scale population studies including the Northwest Adelaide Health Cohort Study. This study, now in its fifth year, is a study of a large representative population sample on whom biographical, biomedical and economic data have been collected over time. He has also been appointed as the manager of the Nutrition Obesity Lifestyle and Environment (NOBLE) study (www.noblestudy.com.au). This is based on an Australian Research Council Linkage grant and currently has eight PhD students investigating several aspects of the obesity problem. Dr Wilson also contributes substantially to several other population studies and is acknowledged as an international expert in population surveillance.

Dr Simon Koblar has his research interests detailed in the Neurology section of this report.

Prof John Horowitz and Drs Arstall, Beltrame and Zeitz have their research interests detailed in the Cardiology section of this report.

Staff

Professor of Medicine

RE Ruffin BSc(Hons) MBBS(Hons) MD FRACP

Professor in Cardiology

J Horowitz PhD FRACP

Associate Professor

RJ Adams MBBS MD FRACP

Senior Lecturers

M Arstall MBBS PhD FRACP

J Beltrame PhD FRACP

S Koblar MBBS PhD FRACP

R Visvanathan MBBS PhD FRACP

CJ Zeitz MBBS FRACP

Research Fellow

PD Zalewski BSc(Hons) PhD

Project Officer

DH Wilson PhD MPH Bed

Hospital Scientist

AG Milton BSc(Hons)

Technical Officer

SL Appleton BSc(Hons)

Personal Assistant

E Mourtzi

Postgraduate Students

D Grosser MBBS FRACP

L Jayaram BSc MBChB FRACP

SL Appleton BSc(Hons)

A Taylor BA

Australian Lung Foundation/Boehringer Ingelheim Chronic Airflow Limitation Research Fellow

C Lang BSc(Hons) PhD

Research Assistants

M Leong BSc(Hons)

S Lee BScMed

Postdoctoral Fellow

C Murgia PhD (Visiting)

Casual Research Assistant

A Spence

Overview

The Department of Medicine has its major activities in undergraduate and postgraduate teaching, basic and applied research, and clinical service and management. Members of the department are involved in basic science research, clinical research, and epidemiological research across the disciplines of Neurology, (see Neurology Report), Ageing, Cardiology (see Cardiology report), chronic diseases and population health.

Dr Renuka Visvanathan is the Director of the Aged and Extended Care Service. Her research interest is ageing, nutrition and in more recent times chronic disease. During 2006 she commenced a study evaluating the relationship between body composition, age and various cytokines (Cytokine, Adiposity, Sarcopenia and Ageing-a Pilot Study). This study is supported by a research grant from the Vincent Fairfax Family Foundation (awarded 2005). Professor William Banks from the Department of Geriatric Medicine from St Louis University, USA is the international collaborator. Other co-investigators include A/Prof David Wilson, A/Prof Robert Adams, Dr Pat Phillips and A/Prof Ian Chapman (RAH - Discipline of Medicine). Dr Visvanathan is also evaluating the associations between lean mass measurement by DEXA and blood protein measures. Dr Solomon Yu who is an Advanced Trainee in Geriatric Medicine will commence a PhD in ageing, nutrition and chronic disease in 2007. Dr Visvanathan is also co-convenor of the International Academy of Nutrition and Ageing conference due to be held in Adelaide in September 2007.

Professor Richard Ruffin is involved in studies on asthma and Chronic Obstructive Pulmonary Disorder (COPD) epi-

Grants

Australian Lung Foundation/Boehringer Ingelheim Chronic Airflow Limitation Research Fellowship, The role of zinc in the respiratory system and in chronic obstructive pulmonary disease (\$50,000 2006) 2005-2006, Lang CJ.

ARC Discovery Project Grant # DP0452805 "Enhancing the management of people living with chronic conditions: understanding the social space that is the consultation" (\$60,000 2006) 2004-2006, Cheek J, Wilson D, Price K, Adams R, Ruffin RE.

ARC Linkage Project Grant "Obesity, Health, Social Disadvantage and Environment in Australia: Relationships and Policy Implications." ARC \$910,395; Industry Partners \$450,000 (\$307,133 2006) 2005-2007, Hugo GJ, Ruffin RE, Wittert GA, Taylor AW, Adams RJ.

ARC Special Research Centre Grant "Centre for the Molecular Genetics of Development" (\$1,000,000) 2000-2009, Saint R (Koblar S one of 9 Genetics/Biochemistry scientists involved with grant).

NHMRC Equipment Grant "Novel markers for zinc transport in airway inflammation and transplanted pancreatic islets, and for susceptibility genes in stroke" (\$41,500 2006) Zalewski PD, Koblar S, Coates P, Jannes J, Ruffin RE, Lang CJ.

NHMRC Project Grant # 299005 "Role of zinc in the respiratory epithelium and asthma", (\$73,500 2006) 2004-2006, Zalewski PD, Ruffin RE, Knight D.

NHMRC General Practice Research Grant # 349573 "Spirometry in asthma management in children and adults in general practice". (\$358,743 2006) 2005-2007, Crockett A, Beilby J, Mudge RP, Staugas R, Adams R, Stocks N.

NHMRC #399124 Primary Health Care Project Grant "Establishing the safety and effectiveness of a diagnostic therapeutic trial for asthma in community elderly" (\$339,250 2006) 2006 - 2008, Adams R, Wilson D, Beltrame J, Visvanathan R.

RACP Vincent Fairfax Family Foundation "Cytokines, Adiposity, Sarcopenia and Ageing (CASA): A pilot study" (\$50,100 2006) Visvanathan R, Wilson D, Adams R, Chapman I, Phillips P, Banks W.

University of Adelaide Faculty of Health Science Establishment Grant "A preliminary study evaluating the relationship between blood muscle protein measurements and lean body mass as estimated by dual-energy z-ray absorptiometry" (\$25,100 2006) 2005-06, Visvanathan R.

University of Adelaide Faculty of Health Science Early Career Small Grant "The role of zinc in cigarette-smoke induced airway inflammation and in chronic obstructive pulmonary disease" (\$15,000 2006-2007) Lang CJ, Gualano R.

Awards

CJ Lang, Asian Pacific Society of Respiriology (APSR) Career Development Award (\$US1,000) 2006.

CJ Lang, Qantas Researcher Travel Support Grant for Emerging Researchers (\$2,500) 2006.

Dr Martin Robinson



Neurology Unit

Research Focus

- Epilepsy Research (Clinical Trials of new anti epileptic medication)
- Dementia research (Clinical trials of new Alzheimer's Disease medications)
- Investigating environmental and genetic risks for stroke
- Investigation of the therapeutic application of adult stem cells to repair the brain following stroke
- Statistical parametric mapping analysis of regional cerebral blood flow (Nuclear Medicine collaboration)

Overview

The Neurology Department continues its long-standing involvement in clinical trials particularly in the areas of epilepsy and dementia. Three trials of new anti-epileptic drugs were undertaken throughout the last year, one of which is still actively recruiting. These trials will allow us access to new anti-epileptic drugs that may not become available to the general public until Pharmaceutical Benefits Scheme (PBS) listing and allow developing valuable clinical experience in the utilisation of these drugs.

The Neurogenetics Laboratory in the Basil Hetzel Institute for Medical Research consists of Drs Simon Koblar, Jim Jannes and Anne Hamilton-Bruce, and includes collaboration with Mr Austin Milton from the Department of Medicine. The team supervised medical and science students, with three winning vacation scholarships. A new study has been initiated into endothelial function in small vessel disease, with PhD Student Ms Ada Lam. This study will also allow development of our earlier neurogenetics findings, and is anticipated to lead to further commercialisation of intellectual property (IP).

The IP from our earlier research has been patented and licensed to the start-up company, Atherogen Biotechnology Pty Ltd. The patents have proceeded through PCT and are now in national phase in major markets. Potential applications of our findings include a biomarker for preventive drug therapy (suited to drug-diagnostic co-development); a diagnostic test to identify patients at risk of arterial thromboembolic events (stroke and myocardial infarction); risk-stratification

of vascular disorders other than stroke (peripheral vascular disease, post-operative arterial thrombotic complications, ischaemic colitis, placental insufficiency) and risk-stratification of other small vessel disease (vascular dementia, haemorrhagic stroke). The genotypes in the patented IP are both common, being present in approximately 10% of the general population. It is well recognised that small vessel pathologies are a significant social and economic cost to the community and that they represent disorders where prevention is a key strategy to decrease this burden. A positive finding will also have relevance to the risk stratification of other associated phenotypes of cerebral small vessel disease (CSVD), i.e., Alzheimer's disease, vascular dementia, impaired intellectual function (IQ) and oral anticoagulant related intra-cerebral haemorrhage.

From a clinical research perspective, Jim Jannes, Anne Hamilton-Bruce and Simon Koblar, together with a report consultant, developed a Business Case for a Stroke Unit, which was presented to key stakeholders. The Stroke Unit will be a geographically located unit, providing high level monitoring facilities to enhance the acute care of stroke victims. New developments in stroke management, eg thrombolytic therapy and clotting factors in the treatment of intra-cerebral haemorrhage mandate that such an area is necessary. There is now support for this and we anticipate setting up the Stroke Unit early in 2007. The Stroke Unit will also provide education and research to achieve clinical excellence in stroke management. Other service enhancement includes the Own-Pet Dog Visiting Service, which was launched at the end of last year. This service can be provided not only for Neurology patients, but for those in need on other wards. Staff can access information and documentation on the Intranet and utilise this for

patients in their wards as well. An assessment project was undertaken by a vacation scholarship student. This successful initiative was supported and undertaken by the Stroke Support Service Volunteers (from Stroke SA), The Friends of TQEH and Neurology nursing and management staff.

The study with the Rheumatology Department on neuropsychological, cognitive, behavioural and imaging with MRI and SPECT in Sjogren's Syndrome is near completion and is being analysed.

In Alzheimer's Disease, eight trials have been completed or are in extension, 2 new further add-on trials to conventional treatment are under-way. In addition a further 2 add-on trials to conventional treatment are under consideration. A Restless Legs (RLS) study is under-way. Neurology Department participation in RLS in the previous year ensured our contribution helped Reprieve to be listed with the Therapeutic Goods Administration (TGA).

Clinical trials in the area of Multiple Sclerosis (MS) also expanded with Renou (neutralising antibodies in Interferon treatment of relapsing remitting multiple sclerosis (RRMS), an observational study (ASSERT) to assess cognition in patients with early Multiple Sclerosis, an add-on treatment effect of oral steroids in relapsing remitting Multiple Sclerosis and clinically isolated syndrome (CIS) of demyelination, treated with Copaxone continues and two new Relapsing Remitting Multiple Sclerosis studies using oral drug versus placebo will commence shortly (Pepgen, FREEDOMS). Tysabri previously under trial for |RRMS was listed with the TGA and now awaits PBS subsidy. Registered Nurse (RN) Peter Cheung has set up the MS database MSBASE that is an internationally used program, which tracks patients' disease.

The Memory Unit provides clinical assessments for cognitive complaints, 3 clinical sessions per week supported by psychology and nursing staff. Dr Karyn Boundy and Dr Cathy Short participated in these clinics in 2006. Further expansion has seen the introduction of a Geriatric Clinic (Geriatric Registrar Dr Solomon Yu and Rehabilitation Registrar Dr Anupam Dattagupta) once a week and a psychogeriatric clinic (Dr Penny King) once a month, thus ensuring the dissemination of Memory Unit knowledge to other specialities. We have also had a Carers Course run by the Alzheimer's Association in our Department and regularly have counselling sessions in our area. Our liaison with geriatrics has been mutually rewarding.

Dr Karyn Boundy has participated in an analysis of antipsychotics on behavioural and psychological symptoms associated with dementia, which subsequently aided the PBS reimbursement of Risperidone for BPSD. RN Judy Deimel won a Scholarship to study Memory Clinics interstate and the role of the Nurse Practitioner in Memory Clinics and attended the World Congress of Neurology and other interstate Memory Clinics to improve our service.

RN Jill Forrest and Dr Karyn Boundy have set up a Prospective Research in Memory Clinics (PRIME) database, studying new presentations with all types of dementia every 6 months. This database is being instituted to allow comparison with centres

interstate and to provide epidemiological data on our patient group. Dr Karyn Boundy is the Chairperson of the Australasian Consortium of Centres for Clinical Cognitive Research (AC4R) to continue facilitation of clinical trials in memory conditions in Australia. She has also been selected as the South Australian and AC4R representative for Neurosciences Trials Australia – a clinical trials platform with “nodes” in each neurological subspeciality area to facilitate both Investigator driven and to also to attract Pharmaceutical company early stage phase I – III research to Australia. Dr Karyn Boundy has spoken at local General Practitioner (GP) division, national and international meetings about aspects of dementia management and diagnosis of less common dementias eg, frontal lobe and tauopathies.

Staff

Director of Neurology
MK Robinson MBBS FRACP

Senior Visiting Neurologist
GH Purdie MBBS FRACP
KL Boundy MBBS FRACP
SA Koblar BMBS FRACP PhD
H Waddy BMBS FRACP

Senior Consultant Neurologist
J Jannes BMBS FRACP PhD

Research Fellow/Consultant
C Short MBBS BSc FRACP

Senior Registrar
A Tan BMBS

Principal Medical Scientist/Management Co-ordinator
MA Hamilton-Bruce BSc MSc MBA PhD AFCHSE CSci FIBMS

Chief EEG Technologist
J Lam RN

EEG Technologist
J Pruszkowski Diploma in Medical Analysis

Medical Scientist
MB Donk BHSc

Neurology Secretary
JA D'ordoy Cert IV Bus Admin

Bookings Clerk/Receptionist
K Greet

Receptionist (part-time)
R Richards

Epilepsy Liaison Nurse
S Horn RN

Clinical Nurse Manager
K Webb RN BN

Clinical Research Trials
JA Deimel RN BN
EL Lam RN
JS Forrest RN ICU Cert
PCCK Cheung RN
P Steventon RN

Postgraduate Students

PhD students

EA Goble RN DipNurs BSc(Hons) “PTSD, Memory and Acetylcholine” University of Adelaide.
R King BA BSW “Hospital hOme Pathways (HOP) – improving pre-hospital admission and discharge planning to community services for Home and Community Care (HACC) eligible clients in the western suburbs of Adelaide” University of Adelaide.
A Lam BPharm (Hons) “Endothelial Function in Small Vessel Disease” University of Adelaide.
S Parasivam MBBS FRACP “Stroke Risk Following Transient Ischaemic Attack (TIA)” University of Adelaide.

Undergraduate Research Student
Medical student (4th Year MBBS)
W Lim

Grants

Australian Government Commercialising Emerging Technology (COMET) Grant awarded to Atherogen Biotechnology Pty Ltd. 2006: \$64,000 from AusIndustry and \$16,000 from The Queen Elizabeth Hospital Research Foundation. I.P. Inventors: Jannes J, Koblar SA, Hamilton-Bruce MA.

Business Development Initiative Grant awarded to Atherogen Biotechnology Pty Ltd 2005-2006: \$18,000 from BioInnovation South Australia (BISA). I.P. Inventors: Jannes J, Koblar SA, Hamilton-Bruce MA.

Business Development Initiative Grant awarded to Atherogen Biotechnology Pty Ltd 2006-2007: \$8,000 from BioInnovation South Australia (BISA) and \$13,000 from shareholders. I.P. Inventors: Jannes J, Koblar SA, Hamilton-Bruce MA.

Australian Research Council Special Research Centre Grant “Centre for the Molecular Genetics of Development” (\$1,000,000) 2000-2009, Koblar S, Saint R et al.

Australian & New Zealand Society of Nuclear Medicine (ANZSNM) Research Grant “Early Detection of Alzheimer's Disease in Individuals Using Quantitative Brain SPECT: Implementation and Optimisation” (\$20,000 2006) Boundy KL, Barnden L, Unger S.

Janssen Cilag Prime Database Survey funding (\$80,000 2006) Ongoing funding, Boundy KL.

University of Adelaide Faculty of Health Science Postgraduate Scholarship (\$19,231 2006) Lam A.

Australian Postgraduate Award, University of Adelaide (\$4,806 2006) Parasivam S.

TQEH Research Foundation Top-Up Postgraduate Scholarship (\$1,248 2006) Parasivam S.

Patents

Mutation associated with strokes (TPA):

- Proceeded through PCT and now in national phase in all major markets, including Japan.
- US patent application 10/563,360, filed 4 January 2006.
- Registered in the name of The Queen Elizabeth Hospital Research Foundation and Adelaide Research and Innovation Pty Ltd (ARI).
- Licensed to Atherogen Biotechnology Pty Ltd.
- Inventors: Jannes J, Koblar A, Hamilton-Bruce MA.

Mutation associated with lacunar strokes (PONI):

- Proceeded through PCT and now in national phase in the markets of the United States of America, Europe and Australia.
US patent application 10/589,725, filed 17 August 2006.
- Registered in the name of The Queen Elizabeth Hospital Research Foundation and Adelaide Research and Innovation Pty Ltd (ARI).
- Licensed to Atherogen Biotechnology Pty Ltd.
- Inventors: Jannes J, Koblar A, Hamilton-Bruce MA.

Awards

J Deimel. South Australian Premier's Nursing Scholarship 2005/2006: Investigation of specialist cognitive memory clinics within Australia: NSW and Victoria.

On-going research

Boundy K, Barnden L, Unger S. Early detection of Alzheimer's Disease in individuals using quantitative brain SPECT: Implementation and Optimisation.

Hooi W, Koblar SA. Enhanced neurogenesis in a primate stroke model

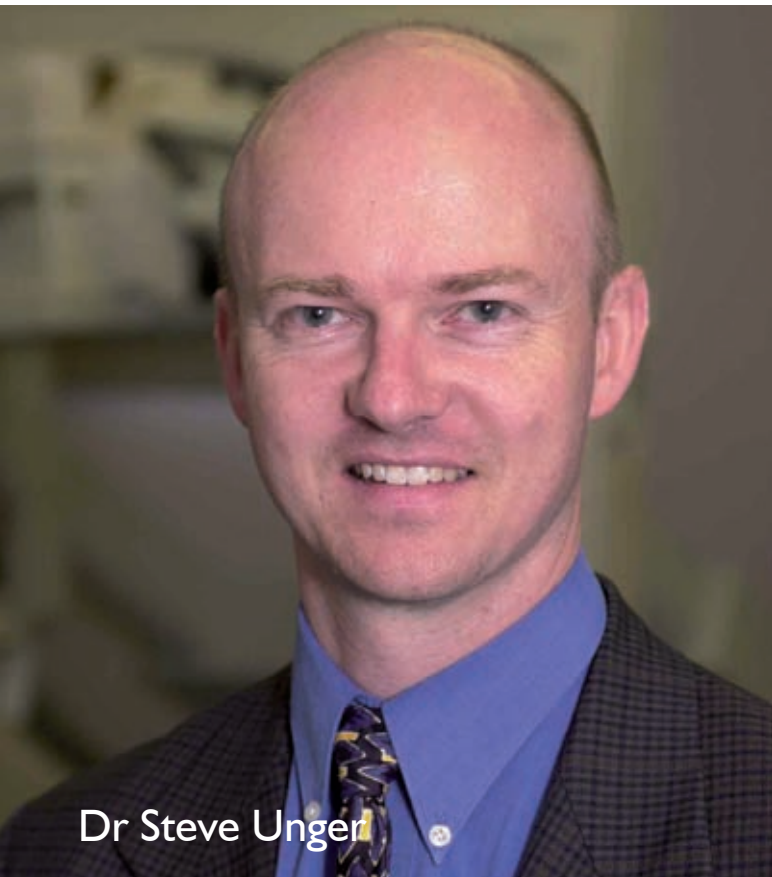
Horn S. Psychosocial Outcomes of Epilepsy Surgery.

Jannes J, Hamilton-Bruce MA, Nosworthy A, Koblar SA. Stroke Unit Definition, Analysis and Review.

Short CL, Behin-Ain S, Barnden L and Boundy KL. Clinical Correlation Between Cognitive and Regional Cerebral Blood Flow Changes in Patients with Mild to Moderate Alzheimer's Disease During Donepezil Therapy.

Acknowledgements

The Neurology Unit thanks BioInnovation SA, AusIndustry, The Queen Elizabeth Hospital Research Foundation and the University of Adelaide for its generous support of projects.



Dr Steve Unger

Nuclear Medicine Unit

Three peer reviewed papers were published in 2006, three presentations were given at an international conference (Society of Nuclear Medicine, San Diego) and seven presentations were given at national conferences (ANZ Society of Nuclear Medicine, Perth and Australian Rheumatology Association, Sydney).

Staff

Director

S Unger MBBS FRACP PhD

Visiting Medical Specialists

M Kitchener MBBS FRACP

R Casse MBBS FRACP

A Warner MBBS FRACP PhD

G Cehic MBBS FRACP

M Nottage MBBS FRACR

Medical Scientists

L Barnden PhD

D Badger PhD(Hons)

Higher Degree Student

TH Nguyen, MD "Ischaemic heart disease project"

Registrar

A Jain MBBS

Technologists

P Ong

G Pandos

T Smith

P Sotiropoulos

N Farnham,

T Piscitelli

L Waran

R Edwards

Q Nguyen

Grants

AGEN Biomedical "Multi Centre, Phase Ib Safety Study of anti-fibrin humanised monoclonal antibody (DI-DD3B6/22-80B3) Fab' Protein Fragment (ThromboView®) conjugated with Technetium-99m in the Detection of Pulmonary Emboli" (\$12,300 2006) 2005-2006 Unger S.

Research Focus

- Dipyridamole vs. atrial pacing stress for myocardial perfusion imaging
- Statistical parametric mapping of regional cerebral blood flow and MRI
- Comparison of nuclear and MR cardiac imaging

Overview

Our Department's research continues to focus on the major areas of cardiac and neurological nuclear medicine. Stemming from Dr Unger's interest in other cardiac imaging methods, several projects are underway comparing nuclear cardiac imaging with cardiac Magnetic Resonance Imaging (MRI). We have commenced a collaborative project with the Cardiology Unit involving the imaging and measurement of salvaged myocardium following primary angioplasty for acute myocardial infarction. Dr Thanh Ha Nguyen has completed her research project this year, comparing right atrial pacing (tachycardia) with dipyridamole (vasodilator) stress to determine which method best provokes myocardial ischaemia in patients with angina and poor mobility. In addition, Dr Barnden has developed a computer program for quantitative comparison of myocardial perfusion during serial studies within the same patient, which Dr Nguyen has utilised in her research.

Research and Development in cerebral imaging continued with the statistical parametric mapping (SPM) package for both SPECT and MRI brain images. Projects included optimisation of image processing and clinical research in collaboration with the department of the Rheumatology Unit in Fibromyalgia (Dr Richard Kwiatek) and Sjogren's Syndrome (Dr Maureen Rischmuller). Basic medical physics research was continued in collaboration with Prof Brian Hutton of University College London. Dr Daniel Badger commenced as a medical physics registrar under the supervision of Dr Barnden.

Nursing Research

Research Focus

- Evidence based practice - State wide practice reviews
- Participation in the State clinical leadership program Clinical Practice improvement activities

Overview

In 2006 The Queen Elizabeth Hospital (TQEH) Pressure Ulcer Working Group accomplished further progress on work undertaken in 2004/2005 on the Pressure Ulcer Prevention and Management Practices Integration of Evidence (PUPPIES) project. The Queen Elizabeth Hospital Nursing Department was involved in this project, with Lesley Thomas (TQEH) and Beth McErlean (RGH) as Project Officers. This collaborative project across metropolitan and rural health-care organisations within South Australia had the aim of building on the clinical practice guidelines "Prediction and Prevention of Pressure Ulcers" published by the Australian Wound Management Association (AWMA) in 2001. The focus of the group was to begin to implement and evaluate a pressure ulcer prevention framework using the Braden Scale within each organisation. An outcome from the project was the development of resources and tools which underwent a process of validation and have been tested and refined by the participating organisations and are available through the Safety and Quality website <http://www.safetyandquality.sa.gov.au/Default.aspx?tabid=76>.

In 2006 TQEH Nursing Division commenced implementation of the Braden Risk Assessment Tool into the last of the clinical areas. The existing composite chart was redesigned to incorporate the Braden Scale, a patient education pamphlet was developed and is now available and the Braden Scale risk Assessment Tool has been adapted and implemented within the peri-operative environment.

In November 2006 the Pressure Ulcer Point Prevalence Survey - Integration of Evidence (PUPPIES 2) commenced with the purpose of developing a statewide coordinated and standardised approach to pressure ulcer monitoring. TQEH completed their hospital-wide audit on November 9th with auditors from across the medical, surgical and critical care nursing divisions and the nursing QI coordinators. We are awaiting the results as the remainder of participating organisations across the state are currently being audited.

The Wound Advisory Group (WAG) developed a STOP sticker to be used on the outside of dressings to minimise inappropriate removal of dressings and promote wound healing. This sticker is currently under review by the Crown Solicitor as

there has been interest from international wound management companies to produce the sticker commercially. The General Manager, David Norton has commenced an Intellectual Property Register for this initiative and any others developed by TQEH staff in the future.

Skin Tear Guidelines in a poster format were also developed by WAG and in conjunction with the Pressure Ulcer Working Party (PACRAT) posters on Pressure Ulcer Management Guidelines were developed. These posters are available throughout the hospital.

Postgraduate Candidates

M Seal RN Undertaking MA in Health Promotion (Deakin University) R Hunt, M Brown TQEH supervisors.

Grants

South Australian Premier's Scholarship Award "Mass Casualty Incident and the Impact on Nursing Staff: How to Turn a Hospital into a Receiving Centre" (\$12,000 2006) Kenny J. The purpose of this study is to investigate international practices, standards for practice, training methods and assessment for acute care hospital nurses who are required to be involved in responding to mass casualty incidents. Particular emphasis will be given to incidents involving chemical and biological agents, be they as an act of terrorism or an act of nature event such as pandemic influenza. Proposed Visits are to: London: St Bartholomew's Hospital, Guy's Hospital and St. Mary's Hospital; Madrid: Hospital Universitario de la Princesa and New York: The Mount Sinai Hospital and Bellevue Hospital Center.

Awards

W McInnes. TQEH Research Foundation Award for best presentation titled "Which Bank? The Dressing Bank" in the Nursing and Allied Health Category at TQEH Research Day October 2006. W McInnes is Vascular Clinical Nurse Consultant for the Division of Surgery.



Professor Rob Norman

Research Centre for Reproductive Health Obstetrics and Gynaecology

University Department of

Research Focus

- Ovarian and Follicular Function
- Fertilization and Embryo Growth (Early Development)
- Reproductive Epidemiology
- Client Decision-Making

Overview

This was the last year that the Research Centre for Reproductive Health was based at the Queen Elizabeth Hospital. The Department of Obstetrics and Gynaecology left the hospital after more than 48 years of contributing to clinical work and research at a hospital that has treated us wonderfully well. The group moved to the Medical School where custom-built laboratories provided substantially more space and interaction with other researchers on the Frome Road campus. Repromed, a company that used to be a part of the University of Adelaide, had left the Queen Elizabeth Hospital four years earlier. The group would like to thank the Queen Elizabeth Hospital administration and staff for their magnificent support and encouragement over all these years. The group intends to continue its relationship through clinical interactions and potential long-term research collaboration.

Ovarian and Follicular Function (Prof R Norman)

World-class research into the function of the egg and its surrounding structures continued at the hospital in 2006. Dr Robert Gilchrist obtained an NHMRC RD Wright Fellowship for his work on molecules that communicate from the egg to the surrounding cells (cumulus granulosa cells). Together with Associate Professor Jeremy Thompson, his work has led to the development of new culture media for in vitro maturation, an IVF procedure in which eggs are matured in the test tube rather than being stimulated with potentially dangerous drugs in the body.

Dr Theresa Hickey completed her PhD and has had several high quality publications looking at the role of androgens in the follicle and in the egg. In a series of clinical studies, she was able to show that inactivation was different in families where sisters presented with different forms of polycystic ovary syndrome.

Dr Rebecca Robker continued her work in obesity and its effect on reproduction, particularly in the egg. She obtained an NHMRC New Investigator project grant to continue her work.

Fertilisation and Embryo Growth (Early Development) (A/Prof J Thompson, Dr M Lane and Dr K Kind)

Associate Professor Jeremy Thompson, Drs Michelle Lane and Karen Kind have a NIH grant to look at the role of factors that predict high quality embryos. There was much publicity about the discovery that glucosamine, a common anti-arthritis drug, has significant anti-fertility effects when applied in the test tube.

Dr Lane obtained an NHMRC project grant looking at the role of mitochondria in the egg and the ongoing effects of epigenesis on long-term outcome.

Dr Karen Kind took a lectureship position at Roseworthy but continued to have a relationship in the research laboratory with RCRH at the Queen Elizabeth Hospital.

Ongoing collaboration with Repromed led to improved pregnancy rates and a continuing introduction of single embryo transfer that has radically transformed IVF across Australia. Pregnancy rates continued to climb while multiple pregnancy rates dropped to 7% as a result of single embryo transfer.

Reproductive Epidemiology (Dr M Davies)

Dr Michael Davies has a cohort called Lucina, which is more than 3000 children born at the Queen Elizabeth Hospital in the 1970s and 1980s. His aim is to look at reproductive consequences of low birth weight and poor prenatal growth. He has contacted a large number of mothers and subsequently found the children. He then went on to show that maternal smoking has an adverse effect on the female offspring's reproductive processes. He also has a NHMRC project grant to look at congenital abnormalities in children of IVF conception.

Client Decision-Making (Dr S de Lacey)

Clinical treatment programs for infertility and other reproductive issues are often controversial in the community. Sheryl de Lacey is an NHMRC Career Development Fellow who has a strong background in clinical nursing; client support and counselling; and the representation of infertile clients in community and bioethical debates, as well as Government policy-making. Her research interests are client-centred and focus on studying the attitudes and experience of women and their partners. She is particularly interested in egg donation and in client decision making. She has published several groundbreaking papers indicating consumer attitudes to stem cell research and egg donation.

Staff

Research Centre for Reproductive Health

Director, Research Centre for Reproductive Health

RJ Norman MD FRCPA FRANZCOG CREI

Deputy Director Research Centre for Reproductive Health

J Thompson PhD

Hospital Scientists

F Amato BSc

Research Groups

Ovarian and Follicular Function

R Robker PhD

B Bennett BSc(Hons)

L Akison

K Van der Hoek PhD

Fertilization and Embryo Growth

M Lane PhD

K Kind PhD

E Camp PhD

D Froiland BSc

C Chesterman

R Kelley BSc(Hons)

K Cashman BSc(Hons)

Oocyte Development

D Armstrong BSA MSc PhD FRSC DSc(Hon)

R Gilchrist PhD

M Mitchell PhD

L Ritter BSc

S Schulz Dipl App Sc

C Gruben PhD

Reproductive Epidemiology

M Davies BA(Hons) MPH PhD

X Wang PhD

Client Decision-Making

NHMRC Clinical Training Fellowship

S deLacey PhD

Students

Postgraduate Students

PhD students

M Bagg BSc(Hons) "Oocyte Developmental Competence in the Pig"

K Banwell BSc(Hons) "Oxygen Concentration and Oocyte Developmental Competence"

R Dragovic BSc(Hons) "Regulation of cumulus expansion by oocyte paracrine factors"

D Feil BSc (Hons) "Viability assays in human IVF"

T Hussein "Influence of oocyte-secreted factors on apoptosis of bovine cumulus cells"

D Lekamge "Role of TGF Beta family members in the regulation of human ovarian physiology"

C Minge "The effects of diet induced insulin resistance ovarian function"

C Schelbach BSc(Hons) "An investigation into the involvement of hypoxia inducible factors (HIFs) during implantation in the sheep"

V Tsagareli MD "A study to determine effects of short term dietary intervention compared to normal nutritional intake in women who are overweight/obese and treated by IVF"

C Yeo BSc(Hons) "Assessment of developmental competence of oocytes"

D Zander BSc(Hons) "Programming of embryos in culture"

Masters Qualifying

F Albuz "AMPK as a novel regulator of oocyte maturation and developmental competence"

Honours students

E Formosa "Immune cells as mediators of obesity-linked infertility"

S Wakefield "Polyunsaturated fatty acid (PUFA) nutrition and fertility in the female mouse"

J Perry "Is AMPK a novel regulator of cumulus cell function and oocyte maturation?" (Supervised by Drs R Gilchrist, J Thompson)

P Thrupp "Effect of Insulin resistance and disturbance of glucose metabolism associated with Type 2 Diabetes on embryo quality after IVF"

J Haris "How exogenous oocyte-secreted factors affect the bovine cumulus-oocyte complex"

Completed Thesis

T Hickey BSc (Hons) "Androgen receptor mediated activity in the ovary" PhD Thesis, University of Adelaide

Grants

ARC Research Network "Genes and Environment in Development" (\$250,000 2006) 2004-2009, Thompson J, et al.

ARC Linkage Grant in conjunction with Cook Australia "Improving the efficiency of bovine oocyte maturation in vitro" (\$47,574 2006) 2005 – 2008, Gilchrist R, Thompson J.

Colin Matthews Project Grant "Non-genomic effects of androgens on progesterone secretion in human granulosa cells" (\$12,000 2006) Hickey T.

Colin Matthews Project Grant "Are epigenetic changes in the developing mouse embryo influenced by maternal dietary protein supply around conception" (\$10,500 2006) Mitchell M.

Colin Matthews Project Grant "The role of hypoxia inducible factor-1 (HIF-1) in the "2 cell block" during in vitro mouse embryo development" (\$3,250 2006) Camp-Dotlic E.

Colin Matthews Project Grant "Alterations in insulin signalling and glucose uptake in cumulus cells of obese women undergoing IVF" (\$7,500 2006) Robker R.

Fertility Society of Australia Clinical Trial Network "Women's reproductive decision-making in relation to the 'egg timer' test and oocyte storage" (\$5,000 2006) DeLacey S, Tremellen K, Lane M.

National Institutes of Health USA Program Grant "How do oocytes and embryos cope with adverse environments?" (US \$270,532 2006) 2003-2007, Thompson JG, Edwards L, Gilchrist R, Kaye P, Kind K, Pantaleon M, Roberts C, Robertson SA.

NHMRC Program Grant "Reproductive Health and Disease in Women" (\$1.66M 2006) 2003-2007, Norman RJ, Rodgers RJ, Armstrong DT, Thompson JG, Robertson SA.

NHMRC Project Grant "Identification of factors essential for oocyte viability" (\$72,750 2006) 2004-2006, Lane M.

NHMRC Development Grant "Seminal plasma cytokine index as a novel fertility diagnostic in men" (\$101,000 2005/06) Robertson S, Norman R, Tremellen K.

NHMRC Research Fellowship "The legacy of the preconception environment on subsequent development and health" (\$112,000 2006) 2005-2009, Thompson JG.

NHMRC Project Grant "Embryo disposal: a study of the attitudes, values, decisions of owners of human embryos excess to Assisted Reproduction on their destruction or donation to stem cell research" (\$63,500 2006) 2003-2006, DeLacey S.

NHMRC Project Grant "Risk of birth defects in children born following infertility treatment" (\$65,538 2006) 2005-2009, Davies M, Wang J, Chan A, Haan E, Lane M.

NHMRC Project Grant "The fetal and childhood origins of the polycystic ovary syndrome" (\$162,517 2006) 2006-2008, Hickey M, Hart R, Franks S, Sloboda D, Doherty D, Davies M.

NHMRC Project Grant "Viability markers for human IVF" (\$82,500 2006) 2006-2008, Lane M, Russell D, Davies M.

NHMRC Career Development Award – Fellowship (\$85,250 2006) 2005-2009, Davies M.

NHMRC Career Development Award – Fellowship (\$85,250 2006) 2005-2009, Lane M.

The Queen Elizabeth Hospital Research Foundation/University of Adelaide Postgraduate Research Scholarships (\$28,045 2006) Bagg M, Dragovic R, Zander D.

The Queen Elizabeth Hospital Research Foundation Honours Research Scholarships (\$12,000 2006) Formosa E, Wakefield S.

University of Adelaide Brailsford Robertson Grant "Dietary interventions for overweight/obese women prior to and during pregnancy – safety and efficacy of low calorie and low carbohydrate diets" (\$200,000 2005/06) Noakes M, McMillen C, Wittert G, Brinkworth G, Norman R.

University of Adelaide Vice-Chancellor's Strategic Initiatives Fund "Healthy Development Research Cluster" (\$50,000 2006), Norman RJ, McMillan C.

Otolaryngology Head and Neck Surgery

Department Of



Professor Peter-John Wormald

Overview

2006 has been a very good year for the Department of Otolaryngology Head and Neck Surgery. It has established a reputation both nationally and internationally as one of the top 5 clinical and research institutions in the field of Rhinology and Sinus Surgery. This has led to invitations to deliver keynote addresses at major international meetings in India, Hong Kong, United Kingdom, Austria, Taiwan and the USA during 2006. Our reputation as a centre of excellence has also led to the department hosting overseas visitors from Sweden, USA, UK, India, Malaysia, China, Italy and Germany for periods of up to 3 months in the department. The department runs research and clinical fellowships and we receive over 50 applicants every year for these positions. Our current research fellow, Dr Achim Beule, from Griefswald, Germany has spent 18 months with the department and over the last year has performed both laboratory and clinical studies. Collaborations like these further enhance the department's international standing and international reputation. The department has also been successful in obtaining grants from the Garnett Passe and Rodney Williams Memorial Foundation. This has helped support our annual research budget of over \$150,000 per annum. 25 peer-reviewed articles have been published in the highest impact factor journals in Otolaryngology and the department has also won numerous awards and prizes.

One of the keystones of the department's research program is the full-time laboratory staff under the leadership of chief scientist Dr Lor Wai Tan. Dr Tan leads an experienced team of laboratory staff with Dr Trisha Rogers, a post-doctoral researcher, and Nick Hatzirodos and Penny Harris as research

assistants. This team forms the core of the department's laboratory research and significantly supports the clinical research program by providing the molecular answers for some of the difficult clinical questions. This year Dr Tan commenced a 3 year project grant funded by the Garnett Passe and Rodney Williams Memorial Foundation to investigate the use of short DNA fragments known as Cytosine-p-Guanosine sequences (CpG's) to attenuate the chronic inflammatory response. Specifically, the binding of CpGs to the Toll-like Receptor 9 found in the epithelial cells of the sinus mucosa can stimulate a shift from the pro-inflammatory Th2 to an anti inflammatory Th1 pathway. In vitro experiments using an explant model developed in our laboratory where patient biopsy tissue is used to test the efficacy of various CpG sequences on the Th1/Th2 response. Multiplexing real time RTPCR and ELISA are some of the methods used to quantify interleukin responses. Toll-like Receptor 9 protein synthesis is determined by Western blotting. The emphasis here is on developing adjuvant therapies to complement surgical and medical treatments in the management of chronic rhinosinusitis

The other keystone of the department's research program has been the surgeon scientist program and research registrar program. In 2006 the department has two PhD surgeon scientists, Alkis Psaltis and Theo Athanasiadis and one Master of Surgery student, Kien Ha. These aspirant surgeons have decided to embark on a period of full time research before completing their surgical training to become ENT surgeons. This program is actively encouraged and supported by the department and has added scientific impetus and momentum to the research within the department and provided an example to other ENT

departments around the country as to the value of incorporating research into the clinical training of our future surgeons.

The department, in conjunction with the Neurosurgery Department, is also a world leader in the development of new transnasal intracranial surgical techniques. These techniques allow brain tumours to be resected entirely through the nose with much reduced morbidity and improved loco-regional control of these tumours. A significant percentage of the patients operated upon in the department are referred from either interstate or overseas, emphasising the recognition of the department as a national centre of excellence.

Staff

Professor of Otolaryngology
P-J Wormald MD FCS(SA) FRCS(Ed)

Senior Lecturer
G Rees MBBS FRACS

Staff Specialist
S Floreani MBBS FRACS
J Ling MBBS FRACS

ENT Hospital Scientist
LW Tan BSc(Hons) PhD

ENT Postdoctoral Fellows
T Rogers PhD
A Beule MD (Visiting Research Fellow)

ENT Research Assistants
M Bruhn BBiotech(Hons)
N Hatzirodos BSc
P Harris

Postgraduate Students
T Athanasiadis MBBS
S Grasby BMBS
K Ha MBBS
E Ooi MBBS
H Pant MBBS
A Psaltis MBBS
D Wabnitz MBBS
I Wong MBBS

Completed Theses
Pant H. Eosinophilic mucus chronic rhinosinuitis: An immunological perspective. PhD, July 2006.

Grasby S. The influence of a topical haemostatic agent on tissue healing in the nasal mucosa of sheep following endoscopic sinus surgery. Master of Surgery, November 2006.

Awards

A Beule. Best presentation of a research project, Higher Degrees and Clinical Trainees category, The Queen Elizabeth Hospital Research Day, Adelaide October 2006.

A Psaltis. Best presentation of a research project, Higher Degrees (Clinical) category, The Queen Elizabeth Hospital Research Day, Adelaide October 2006.

K Tran. Best presentation of a research project, Undergraduates: Medical and Summer Students, The Queen Elizabeth Hospital Research Day, Adelaide October 2006.

T Athanasiadis. The Ron Gristwood Medal for best scientific presentation, ASOHNS State Section Meeting, Adelaide, November 2006.

K Ha, A Psaltis, LW Tan, PJ Wormald. The Maurice Cottle Award for the best paper, American Rhinologic Society Annual meeting, Toronto, September 2006.

A Psaltis, K Ha. Sir Edwin Hughes Memorial Clinical Research Prize in Surgery for the best presentation by a surgical trainee in Australia and New Zealand, Sir Edwin Hughes Memorial Research Presentations, Monash University, Melbourne, October 2006.

Grants

Garnett Passe and Rodney Williams Memorial Foundation Grant-in-Aid "MUC7 12-mer and caspofungin: a synergistic antifungal effect?" (\$50,000 2006) 2005-2006, Wormald PJ.

Garnett Passe and Rodney Williams Memorial Foundation Grant-in-Aid "The localised application of antigen-CpG oligonucleotides to modulate chronic mucosal inflammation. A novel therapy for sinus disease" (\$90,000 2006) 2006-2008, Tan LW.

Garnett Passe and Rodney Williams Memorial Foundation Scholarship (\$40,000 2006) 2005-2007, Athanasiadis T.

Garnett Passe and Rodney Williams Memorial Foundation Scholarship (\$40,000 2006) 2005-2007, Psaltis A.

University of Adelaide Faculty of Health Sciences (Divisional) TQEH Research Foundation Postgraduate Research Scholarships (\$18,628 2006) Ha K.

TQEH Research Foundation Vacation Scholarship 2005-2006 (\$1,200 2005-2006) Tran K.

Psychiatry

University of Adelaide

Discipline of

Research Focus

- The impact of major common psychiatric disorders, such as depression and anxiety, on high prevalence chronic medical conditions such as coronary artery disease, chronic respiratory disease and diabetes.

Overview

From January to June 2006, Dr Geoff Schrader acted as Head of the Discipline of Psychiatry. At the same time he continued his collaboration with Professor Simon Stewart, Professor of Preventative Cardiology at the Baker Heart Research Institute and Professor David Wilson, of the Department of Primary Care at University of Queensland on the NHMRC funded "TakeHeart" project. This project involves a cluster randomised trial conducted in 24 general practices and is attempting to discover the impact of identifying and treating depression in patients with heart failure and angina. The intervention is based on findings from the IDACC project, conducted by Dr Schrader and Dr Frida Cheok in Adelaide some years ago. During the year it was decided to recruit subjects for this study in Adelaide rather than Brisbane.

Dr Schrader has also continued to work with Dr Cheok, of The Mental Health Research and Outcomes Unit, on a further analysis of the IDACC data set, in particular investigating factors which predict depression at 12 months following cardiac hospitalisation, and also the extent of depression comorbidity in a range of chronic illnesses. In addition, he has begun a collaboration with Dr Kate Jarvis of the Consultation Liaison Psychiatry Service and Dr Pat Phillips of the Endocrine Unit, The Queen Elizabeth Hospital, and plans are being developed to measure health benefits derived from treating depression in people with diabetes.

Dr Nick Potts has continued his work with Dr David Wilson and Professor Richard Ruffin. The past 12 months has seen the completion of the second phase of the North West Adelaide Health Study data collection. This data set contains information on the rates of depression in the North West Adelaide population and the association of depression with a variety of chronic medical conditions including chronic lung diseases, diabetes, rheumatological disorders and general health risk questions and basic demographics. A preliminary analysis of this data has been undertaken and the initial findings were presented at the 2006 Australian Society for Psychiatric Research Meeting.



Dr Geoff Schrader

Ms Rosanna Tavella, PhD student in Cardiology, has begun a collaborative project investigating the impact of depression on quality of life in cardiac patients. Ms Therese Mayo continued her work in spatial working memory abnormalities in PTSD. Dr Elaine Skinner continued her qualitative analysis of case records of patients seen in rural South Australia.

Staff

Senior Lecturer
GD Schrader MBBS PhD FRANZCP

Lecturer
NL Potts BMBS ABPN

Research Officer
T Air BA(Hons)

Administration
DK Brown
D Alberton

Postgraduate Students
PhD students

T Mayo "Spatial working memory abnormalities in PTSD"
N Potts "Major depression in chronic lung disease"
E Skinner "Morbidity patterns in psychiatric patients in rural South Australia"
R Tavella "Quality of Life, depression and cardiac disease"
J Beall "A multifaceted and longitudinal study of the relationships between maternal risk factors, mother-infant interactions, and the development of infant self-regulation"

Masters Student
B Asokan "Measurement of trauma in acutely psychotic patients"

Renal Unit

Research Focus

- many aspects of the care of the patients with renal disease with special emphasis on kidney transplantation at clinical, epidemiological and experimental levels
- A new research initiative began in 2005 in the field of pancreatic islet transplantation as treatment for Type-1 diabetes mellitus

Overview

2006 has been extremely productive year for research in the department. Highlights of the year have been successful NH & MRC funding to Dr Toby Coates and to Dr Stephen McDonald and a major Juvenile Diabetes Research Foundation to Professor Graeme Russ and Dr Coates. Dr Ravi Krishnan was successful in obtaining industry collaborative funding from the United States. The total research funding to the department this year was in excess of 1.2 million dollars – the highest that it has ever been. 2006 was also notable for the successful application to establish clinical islet transplantation within the Australian Islet Consortium. This funding of approximately 2.7 million dollars over the next four years will allow for the introduction of Islet Transplantation Services in South Australia. Clinical and laboratory transplantation research was the focus of a nationally broadcast story on the ABC science television series, Catalyst.

Laboratory Research

Laboratory Research within the Department continues to progress strongly, led by Dr Krishnan in the Transplantation Immunology Laboratory. Basic research continues to explore the genetic modification of dendritic cells for the purposes of modifying allograft rejection. This year Dr Krishnan was awarded a major international research grant for the investigation of mesenchymal stem cells for transplantation. He supervised two PhD students and two honours students during 2006 through The University of Adelaide and through Flinders University. Dr Coates supervised three PhD students during 2006 and



Professor
Graeme Russ

two honours students, Professor Russ supervised two PhD students. Mr Ashley Newland and Dr Wai Lim were awarded the degree of PhD through University of Adelaide during 2006. The awarding of these two PhD's increases the Departments total of PhD Graduates to eleven since 1990. Two honours degrees were awarded to Mr Dylan King and to Ms Darling Rojas, who will continue PhD studies in the laboratory. External collaborations with the Australian National University and Professor Chris Parish were initiated in 2006. Mr Clyde Milner co-ordinated contract research with Shering Plough and the local Pharmaceutical Research Company CMAX. Dr Moien Ansar was a visiting post doctoral fellow from Iran within the laboratory for six months in 2006. Dr Ansar and Mr Milner initiated major research efforts for the clinical islet transplantation project.

South Australian Northern Territory Islet Transplant Program

This new clinical and laboratory research program will provide islet transplantation for the benefit of South Australians as a component of the National Islet Transplantation Consortium. Clinical islet transplantation is an emerging treatment for type-1 or juvenile-onset diabetes mellitus. The South Australian Northern Territory Islet Program is a Statewide Transplant Service modelled closely on the renal transplant service provided through the hospital. This clinical research program will provide donor pancreata for islet isolation at either St. Vincent's Hospital, Melbourne or Westmead Hospital in Sydney. Islets will then be shipped back to South Australia for clinical islet transplantation at The Queen Elizabeth Hospital. The Queen Elizabeth Hospital

leads this program and is one of only three centres nationally funded by the Department of Health and Aging and the Juvenile Diabetes Research Foundation to undertake this research. The Steering Committee of this program has representation across all hospitals in the state. Specifically, Associate Professor David Torpy from the Royal Adelaide Hospital functions as the Endocrine Consultant for the program and Dr Ian Lewis represents the Therapeutic Products Facility at the Institute of Medical & Veterinary Science (IMVS). Other members of the Steering Committee include Associate Professor Ray Morris who will provide centralised therapeutic drug monitoring for the national program through The Queen Elizabeth Hospital, Professor Guy Maddern representing Department of Surgery, Dr Christine Russell representing Transplant Surgeons, Professor Graeme Russ (Principle Investigator) and Chair of the Steering Committee and Dr Toby Coates Transplant Nephrologist (Co-Principal Investigator). Funds from this program will employ up to 2 new scientists and a clinical trials nurse.

Clinical Research

The Department of Nephrology and Transplantation Services continues to be an active participant in a number of international clinical trials in transplantation and nephrology. In 2006 the department recruited patients into four de novo transplantation trials. One of these involved a phase 3 study of a new transplant immunosuppressant called the Belatacept and as such was the first transplant unit in Australia to use this agent. Other studies included an evaluation of Sirolimus from the time of transplantation without the use of Cyclosporin, an evaluation of Everolimus in transplantation and a further study which examined the withdrawal of Cyclosporin or Prednisolone at 5 to 6 months after transplantation. A number of studies were continuing from previous years where patients were still being followed. Professor Russ was the leading investigator in a major study of the effect of Sirolimus on cancer post renal transplantation. This work is likely to have a major impact on immunosuppressive transplant drug therapy in the future.

In General Nephrology and Dialysis ongoing and new trials have examined the efficacy of Erythropoiesis Stimulating Agents in the treatment of renal anaemia and the use of a new calcimimetic agent, Cinacalcet, to reduce the development of renal bone disease and also a study of its efficacy in the reduction of cardiovascular events in chronic renal failure patients.

Epidemiological Research

Epidemiological Research has continued to be active within the department. The Australia and New Zealand Dialysis and Transplant Registry is housed within the Department. Dr McDonald acts as Executive Officer for this, and Prof Russ chairs the Executive Committee. The Registry is funded by an agreement with the Commonwealth Department of Health and Ageing, and is overseen by a steering committee with wide representation from nephrologists and others across Australasia.

This Registry has a major role in gathering and utilising information about the incidence, prevalence and outcomes of dialysis and transplantation across Australia and New Zealand. As part of this there is an active research role, with a number of papers produced and a wide network of collaborators. Dr

Balaji Hiremagalar was awarded an M Med Stat degree in 2006 from Newcastle University for work based on ANZDATA data and supervised by Dr McDonald. Dr Sean Chang commenced as Epidemiology Fellow in early 2006, and in 2007 funding will become available as part of a NHMRC Capacity Building Grant in Population Health for a further postdoctoral fellow position. Finally, 2 nephrologists with experience in epidemiology (Dr Louise Moist from London, Ontario and Dr Mark Marshall from Auckland) spent short "sabbatical" periods in the ANZDATA Registry in 2006.

Staff

Professor and Director Renal Unit and Renal Transplant Services

GR Russ MBBS FRACP PhD

Senior Staff Nephrologists

APS Disney MBBS FRACP

SP McDonald MBBS(Hons) FRACP PhD

Transplant Surgeons

MM Rao BSc MS MCh FACS FRACS

CH Russell MB BCh FRACS BA(Hons) MA (Oxon) FRCS (Edin)

Renal Transplant Nephrologist

PTH Coates MBBS FRACP PhD

Senior Medical Scientist

R Krishnan BSc(Hons) PhD

Medical Scientists

C Milner BAppSc

S Kireta BSc

A Milton BSc (part-time)

Research Assistants

KW Munasinge BSc MBiotech

A Newland BSc PhD

E Cannon BSc(Hons)

E Leedham BBiotech(Hons)

Technical Officers

J McIntyre BSc

J Johnston

Clinical Trials

B Hockley RN

C Russ RN

M Hockley RN

Degrees Awarded PhD

A Newland BSc PhD

WH Lim MBBS FRACP PhD

Honours

D King BSc(Hons)

DM Rojas BSc(Hons)



Dr Maureen Rischmueller

Rheumatology Unit

Research Focus

- Autoimmunity
- Epidemiology
- Fibromyalgia
- Immunogenetics
- Inflammation

Overview

The Rheumatology Unit strives to augment its clinical rheumatology services with research programs into the causation and complications of rheumatic diseases and evaluation of new generations of pharmaceutical agents for the treatment of arthritis. The major focus of this research is towards the immunogenetics, pathogenesis, and epidemiology of a number of rheumatic diseases.

Dr Catherine Hill has continued her interest in the epidemiology of rheumatic diseases, with emphasis on three areas: osteoarthritis, cancer and connective tissue diseases and randomised clinical trial methodology. She was selected to give two oral presentations at the 2006 American College of Rheumatology Meeting in Washington, and was also awarded an NHMRC grant, commencing in 2007, to conduct a randomised controlled trial of omega-3 dietary supplementation in osteoarthritis. Dr Hill has ongoing collaborations with Boston University Clinical Epidemiology Research and Training Unit, the South Australian Scleroderma Registry, the SA Cancer Registry, DHS Population Research and Outcome Studies Unit, and the Australian Orthopaedic Association National Joint Replacement Registry.

Dr Richard Kwiatak continued his collaborative research with TQEH departments of Nuclear Medicine and Neurology into alterations in regional cerebral blood flow amongst patients with fibromyalgia, and was awarded the Best Clinical Poster award at the National Meeting of the Australian Rheumatology Association in Perth. Dr Simon Burnet continued his research into shoulder disorders. Dr Vidya Limaye, in collaboration with Professor Peter Roberts-Thomson, Flinders Medical Centre, reviewed the clinical and demographic details of South Australian patients with a tissue diagnosis of inflammatory myositis, and commenced work on the establishment of a statewide myositis database.

Dr Maureen Rischmueller was invited to speak at a number of national and international meetings in 2006, reflecting her ongoing clinical and research interest in Sjögren's syndrome. Her research group, led by Senior Research Officer Ms Sue Lester, continued to study candidate autoimmune genes, and this year published an important paper describing an association of the CTLA-4 gene with Sjögren's syndrome. Dr Sarah Downie-Doyle was awarded a travel scholarship by the Japanese Rheumatology Association to present this work at their annual scientific meeting in Nagasaki. Dr Rischmueller's group have also produced novel, important findings from three, as yet unpublished, genetic studies involving additional key components of the immune system: complement regulation, B lymphocyte activating factor, and purinergic receptors: the latter two projects in collaboration with Prof Hans Nossent, who spent the year in their laboratory on sabbatical from the University of Tromsø, Norway; and Prof James Wiley, University of Sydney.

Ms Lester, in a collaborative study with Professor Les Cleland and Dr Susanna Proudman, Royal Adelaide Hospital, has sought to define genetic predictors of disease progression and treatment response in patients with rheumatoid arthritis; has also been involved in an important study predicting patients' response to methotrexate therapy. In addition she has initiated a study to look at the genetics of the Vitamin D receptor in relation to rheumatoid arthritis onset, progression, and effects of Vitamin D supplementation. A further planned study, for which funding has been awarded by NHMRC for 2007, relates to the genetics of fish oil metabolism and response to fish oil anti-inflammatory therapy. Ms Lester was a major contributor of data to the canine DLA component of the 14th International Histocompatibility Workshop and Conference in Melbourne in late December 2005 and in 2006, and co-authored a paper on DLA typing methodologies, in collaboration with the CY O'Connor ERADE Village in Western Australia. She is part of a collaboration with the Veterinary School at Melbourne University, and is involved in two on-going canine genetic studies.

Other collaborative projects include:

- a genome-wide scan of single nucleotide polymorphisms in Sjögren's syndrome with Professor John Harley at the Oklahoma Medical Research Foundation;
- candidate genes in the pathogenesis of Behcet's Disease, a leading cause of blindness in Asia and the Middle-East, with Professor Farhad Shahram, Tehran University; and
- investigation of the influence of cytokine levels and genetic polymorphisms in obstructive sleep apnoea with Professor Doug McEvoy at Repatriation General Hospital, Daw Park.

Staff

Director / Senior Lecturer
M Rischmueller MBBS FRACP

Staff Specialists

S Burnet MBBS FRACP
CL Hill MBBS MSc(Epi) FRACP
V Limaye MBBS FRACP PhD
B True MBBS FRACP
S Whittle MBBS FRACP

Visiting Medical Officer

R Kwiatak MBBS FRACP

Visiting Overseas Fellow

J Nossent MD PhD

Registrar

E Ang MBBS

Research Officers

S Downie-Doyle BSc(Hons) PhD
S Lester BSc(Hons)

Clinical Trials Coordinator

L Milazzo BSc M AppSc

Principal Medical Scientist

WH Betts BSc(Hons) PhD

Grants

RAH/IMVS Research Committee Clinical Project Grant "B Cell activating factor gene polymorphism in primary Sjögren's Syndrome" (\$20,000 2006). Rischmueller M, Nossent J, Lester S, Proudman S.

Awards

S Downie-Doyle. Awarded Japanese College of Rheumatology International Scholarship to attend 50th Annual General Assembly and Scientific Meeting of Japan College of Rheumatology, April 23rd to 26, 2006 in Nagasaki, Japan. Presentation titled "Influence of CTLA-4 Haplotypes upon susceptibility and extraglandular manifestations in Australian patients with primary Sjögren's Syndrome".

R Kwiatak, L Barnden, S Behin-Ain, J Kasza, R Tedman, D Danda, K Pile. Best Clinical Poster Award at the Annual Scientific Meeting of Australian Rheumatology Association. Perth, May 2006.

Acknowledgements

The Rheumatology Unit would like to acknowledge support from the TQEH Research Foundation, Prof Les Cleland, Director of Rheumatology, RAH, for his ongoing support and provision of laboratory space at the Hanson Institute, The Royal Adelaide Hospital/IMVS Clinical Research Grants Committee, Arthritis Australia and C.Y. O'Connor ERADE Village, Western Australia.



Surgery

University of Adelaide,
Discipline of

Research Focus

- Surgery for cancer
- Minimally invasive surgery
- Assessing the evidence
- Understanding the biology of surgical disease

Overview

The current crisis in medical manpower is increasing within Australia. This is being recognised by government with an increased number of medical students now being offered positions at many Universities around Australia. In order therefore to attract high quality medical students it is vital that high quality consultant staff be attracted and retained. For this to occur, The Queen Elizabeth Hospital Department of Surgery needs to continue to have a strong research profile. It is only by distinguishing ourselves with high quality research that innovative and forward thinking surgical staff can be attracted and held within the hospital. We have been very fortunate in having a strong research base within the department for many years and as a result it has been possible to attract high quality surgical registrars and make The Queen Elizabeth Hospital surgical attachments attractive to undergraduate medical students.

The research endeavours within the department have been able to generate research funds in excess of \$2 million over the last 12 months with an average publication rate of approximately one peer reviewed paper on average produced every five days. This energy and enthusiasm has been largely due to the efforts of the individual subspecialty interests within the department. Upper Gastrointestinal Surgery, Colorectal Surgery, Breast Surgery, Vascular Surgery, Orthopaedic Surgery and Gynaecology Surgery have all been particularly productive over the past twelve months.

Separately in this annual review the Otolaryngology department reports its stand-alone performance indicating its substantial contribution to the research efforts at The Queen Elizabeth Hospital and the University of Adelaide. During the

year the significant loss to our research staff has been the resignation of Mr Adrian Hines. Adrian has been an employee of the University for over a decade and has been responsible for running the experimental surgical facility for the past 3 years. With his departure there will be an enormous loss of experience and corporate knowledge, which will take some time to replace.

The future for the department in 2007 looks promising and with the arrival of the new research facilities at the Basil Hetzel Institute in 2008 the opportunity to continue to attract high quality researchers would seem assured.

Staff

RP Jepson Professor of Surgery
Director, Division of Surgery
Director of Research, Basil Hetzel Institute
GJ Maddern MBBS PhD MS MD FRACS

Professor of Otolaryngology
P-J Wormald MD FCS(SA) FRCS(Ed)

Associate Professors
R Fitridge MBBS MS FRACS
N Rieger MBBS MS FRACS
WEW Roediger MBBCh MSc DPhil(Oxon) FRACS

Senior Lecturers
M Bruening MBBS MS FRACS
M Goggin MBBCh BAO FRCSI(Ophth) FRCOphth DO
J Miller MBBS FRACS
D Walsh MBBS FRACS

Lecturer
D Rodda MBBS FRACS

Staff Specialists
A Anthony MBBS FRACS
P Hewett MBBS FRACS
M Lloyd MBBS FRACS
D Roach MBBS MD FRACS
D Walters MBBS FRACS

Clinical Title Holders
S Ali MBBS FRACS
A Anthony MBBS FRACS
W Babidge BSc BAppSci(Hons) PhD
F Bridgewater MBBS FRACS FRCS
G Burfield MBBS FRACS FRCS
P Byrne MBBS FRCS FRACS
D Close MBBS DCH RCP FRACS
A Cowin PhD
PA Cowled PhD
R Davies MBBS DRACR
A De Sousa BSc(Hons) FRCS(Irel) FRACS
D Economos MBBS FRACO
IA Fletcher MBBS BMedSc(Hons) FRACS MRACMA
H Forbes MBBS FRCS FRACS

G Fraenkel MBBS FRACO FRACS
N Gehling MBBS FRACO
RHC Harries BSc MBBS FRACS
P Hewett MBBS FRACS
V Humeniuk MBBS FRACS
A Hunt MBBS Dobst RCOG FRACGP
A Karatassas MBBS FRACS MS
M Landy MBBS FRACS
B Launois MD FACS
M Lloyd MBBS FRACS
E Mah MBBS MD FRACS
G McCulloch MBBS FRCS(Edin) FRACS
B McCusker MBBS FRACS
N Minnis MBBS FRCS FRACS
K Moretti MBBS FRACS
G. Nimon MBBS FRACS FRCS (Ed)
R Parkyn MBBS FRACS
C Pozza MBBS FRANZCR
T Proudman MBBS FRACS
M Rao MS MCh FACS FRACS
S Raptis MBBS FRCS
T Rayner PhD
D Roach MBBS FRACS
C Russell BMBCh FRACS
RL Strickland MBBS LRCP FRCS(Edin) FRCS(Lond)
P Stuart MBBS DRACOG FACEM
M Texler MBBS
M Tie MBBCh BAO(NUI) LRCP LRCSI

RP Jepson Research Fellow
P Cowled PhD

Research Fellow
C Dobbins MBBS

Postgraduate Students
A Anthony MBBS FRACS
O Corso BSc(Hons)
T Hassen MBBS
R Knowling BSc(Hons)
K Ooi MBBS
B Teague MBBS

Technical Officers
C Easterbrook BHealthSc BHealthSc(Hons)Public Health
B Hutchens
A Hines
C Hutchison (from October 2006)
L Leopardi BSc BEng(Hons)Biomedical
M Slawinski
P Vanderzon BSc

Clinical Trials Coordinator
J Stephens BSc(Hons) MPH

Completed Theses
Hassen T. Systemic inflammatory response syndrome and sepsis in major vascular surgery. Master of Surgery, October 2006.

Ooi K. The potential immunomodulatory effects of the statins in uveitis. Master of Surgery, July 2006.

**Orthopaedics and Trauma,
TQEH Department of**
Director
C Butcher MBBS FRACS FAOrthA

Senior Lecturer
A Fagan MBBS (Adel) FRCS (Glas)

Visiting Specialists
ET Mah MD BMBS FRACS FAOrthA
A Munyard MBBS FRCS FRACS FAOrthA
T Stevenson MBChB FRCS FRACS FAOrthA
G Morrison MBChB FRCS (Ed) FRACS FAOrthA
P Lewis MBBS FRACS FAOrthA
N Cullen MD FRCS(C) FRACS FAOrthA
O Osti MD PhD FRACS FAOrthA
D Waters BMBS FRACS
L Ferris MBBS BSc (Med) FRACS
C Brown MBBS FRCS(C) FRACS FAOrthA
R Montgomery MBBS FRACS
J van Essen MBBS FRACS (Ortho)
W Duncan MBBS FRACS (Orth)

Consultant Physician
C Gibb MMBS, FRACP

Arthroplasty Fellow
S Phillips MB BCH Wales (6 months)

Hand and Upper Limb Fellow
Y O Ng MB BS (Hons) (from July 2005 until May 2006)

Research Officers
P Lekkas BAppSc (Physio) Mphity (until Jan 2005)
G West, B Physio (from August 2005)
P Mount BA(Hons)
F Meredith BA(Psych)

**Orthopaedics and Trauma current
research activities**

West G, Lekkas P Lewis P, Butcher C. A Comparative Trial between the NexGen Fixed Bearing Total Knee Replacement and the MBK Mobile Bearing Total Knee Replacement.

West G, Lekkas P, Butcher, C. A Comparative Trial between the Spectron and the Exeter Total Hip Replacements.

West G, Lekkas P, Cullen N, Munyard A. The TRAC PS Mobile Bearing Total Knee Replacement Clinical Trial.

Lewis P, Butcher C, Chatterji U, Lever J, Prakash U, Rickman M, McGee A, West G, Mount, P. Cognitive Function following Total Joint Arthroplasties: is there a problem?

Lewis P, Stevenson T, Morrison G, Bauze RJ, Stirling J. Kinemax Plus Outcomes Study: A Multinational Prospective study of the Outcomes of Primary Total Knee Replacement Surgery using the Kinemax plus Prosthesis. (Phase II: Follow up of patients at four and five years).

Mah E, Gupta R, Ng Y O, Ng E S. Comparative Study of the Clinical Outcome of Bipolar versus CTA Hemiarthroplasty in Rotator Cuff Tear Arthropathy – A Prospective Randomised Study.

McGee, A, West G, Rickman M, Lewis P, Butcher C. A Comparative Trial between the Nexgen Cruciate Retaining Total Knee Replacement (CR) and the Nexgen High Flexion Total Knee Replacement (CR-Flex).

Grants

Australian Council for Safety and Quality in Healthcare State Quality Officials Forum (SQOF), ASERNIP-S (Australian Safety and Efficacy Register of New Interventional Procedures – Surgical) “National Breast Cancer Audit” (\$285,257 2005-2006) Maddern GJ.

Colorectal Surgical Society of Australasia Foundation “Trial of laparoscopic resection rectopexy vs laparoscopic rectopexy for the treatment of rectal prolapse” (\$90,000 2006) 2006-2008. Hewett P.

Commonwealth Department of Health and Ageing ASERNIP-S “Endoluminal audit” continuation grant (\$291,675 2006) Maddern GJ.

Commonwealth Department of Health and Ageing ASERNIP-S Continuation grant (\$713,000 2005-2006) Maddern GJ.

Commonwealth Department of Health and Ageing ASERNIP-S Continuation grant (\$454,500 2006-2007) Maddern GJ.

Cook Australia “Endoluminal audit” (\$68,750 2006-2007) November 2006 - October 2008, Maddern GJ.

National Breast Cancer Council Special Project Funding (\$5,500 2005-2006) Maddern GJ.

NHMRC “Australasian Randomised Clinical Trial comparing laparoscopic and open surgical treatment of colon cancer: Follow up” (\$69,750 2006) 2005–2007, Hewett P.

NHMRC Industry Fellowship “Development and commercialisation of a product for repairing photodamage in skin” (\$88,750 2006) 2002–2006, Rayner T.

South Australian Department of Health ENT funding (\$467,000 2006-2007) Maddern GJ.

South Australian Department of Health Project Grant “Assessment of new technologies” (\$125,000 2006) 2005-2007, Maddern GJ.

University of Adelaide Faculty of Health Sciences (Divisional) TQEH Research Foundation Postgraduate Research Scholarships (\$40,000 2006) Dobbins C, Corso O.

Awards

GJ Maddern. Finalist, Premier’s Science Excellence Awards Science Technology and Innovation Management Excellence category September 2006.

T Hassen. European Society for Vascular Surgery Annual Scientific meeting. Awarded second prize (£1,500) for her paper “Pre-operative nutritional status and the development of systemic inflammatory response syndrome and sepsis following major vascular surgery” Prague, September 2006.



Publications

Anaesthesia

Papers

Pfützner J. Potential for acute lung injury following one-lung ventilation: alveolar overdistension from partial bronchial obstruction. *Anaesthesia*. 2006 Sep; 61(9):906-7.

Pfützner J, Stevens HJ, Rao V, Close JS, Lance DG. One-lung ventilation in a patient with an organizing empyema and severe idiopathic pulmonary fibrosis. *Br J Anaesth*. 2006 Aug; 97(2):266-8.

Pfützner J. Further reason for maintaining a positive CVP during neurosurgery in the sitting position. *Anaesth Intensive Care*. 2006 Feb; 34(1):120-1; author reply 121.

Pfützner J, Fowle JA, Kishore M, Michael AS, Lance DG. Arterial oxygen desaturation during only one of two similar thoracoscopic procedures on the same patient. *Anaesth Intensive Care*. 2005 Dec; 33(6):805-7. *Erratum in: Anaesth Intensive Care*. 2006 Feb; 34(1):114.

Cardiology

Papers

Kennedy, JA, Beck-Oldach K, McFadden-Lewis, K, Murphy GA, Wong YW, Zhang Y & Horowitz JD. Effect of the anti-anginal agent, perhexiline, on neutrophil, valvular and vascular superoxide formation. *Eur J of Pharma*. 2006; 531:13-19.

Chirkov YY, Mishra K, Chandy S, Holmes AS, Kanna R & Horowitz JD. Loss of Anti-aggregatory effects of aortic valve tissue in patients with aortic stenosis. *J Heart Valve Dis* 2006; 15:1:28-33.

Davies BJ, Collier JK, James HM, Somogyi AA, Horowitz JD. The influence of CYP2D6 genotype on trough plasma perhexiline and cis-OH-perhexiline concentrations following a standard loading regimen in patients with myocardial ischaemia. *Br J Clin Pharmacol*. 2006 Mar; 61(3):321-5.

Mishra KJ, Sage PR, Philpott AC, Zeitz CJ, Horowitz JD. Temporal trends in major angioplasty complications: Technical issues and the case for on-site coronary surgery. *Intern Med J*. 2006 Jul; 36(7):458-61.

Inglis SC, Pearson S, Treen S, Gallasch T, Horowitz JD, Stewart S. Extending the Horizon in Chronic Heart Failure. Effects of Multidisciplinary, Home-Based Intervention Relative to Usual Care. *Circulation*. 2006 Dec 5; 114(23):2466-73.

Morris RG, Jones TE, Goldsworthy SJ, Wagner TJ, Ho H, Horowitz JD. Suspected DLIS interference in the dimension DGNA digoxin assay method and the clinical application of the revised digoxin target range. *Ther Drug Monit*. 2006; 28(3):454-7.

Ritchie RH, Zeitz CJ, Wuttke RD, Hii JT, Horowitz JD. Attenuation of the negative inotropic effects of metoprolol at short cycle lengths in humans: comparison with sotalol and verapamil. *J Am Coll Cardiol*. 2006; 48(6):1234-41.

Horowitz JD, Kennedy JA. Time to address the cardiac metabolic "triple whammy" ischaemic heart failure in diabetic patients. *J Am Coll Cardiol*. 2006; 48(11):2232-4.

Horowitz JD, Heresztyn T. An overview of plasma concentrations of asymmetric dimethylarginine (ADMA) in health and disease and in clinical studies: Methodological considerations. *J Chromatogr B Analyt Technol Biomed Life Sci* 2006 Oct 10.

Clinical Pharmacology Unit

Papers

Davies BJ, Collier JK, James HM, Somogyi AA, Horowitz JD and Sallustio BC. The influence of CYP2D6 genotype on trough plasma perhexiline and cis-OH-perhexiline concentrations following

a standard dosing regimen. *Br J Clin Pharmacol* 2006 Mar; 61: 321-325.

Davies BJ, Herbert MK, Culbert JA, Pyke SM, Collier JK, Somogyi AA, Milne RW and Sallustio BC. Enantioselective assay for the determination of perhexiline enantiomers in human plasma by liquid chromatography. *J Chromatogr B Analyt Technol Biomed Life Sci* 2006 Feb; 832: 114-120.

Davies BJ, Herbert MK, Collier JK, Somogyi AA, Milne RW and Sallustio BC. Determination of the 4-monohydroxy metabolites of perhexiline in human plasma, urine and liver microsomes by liquid chromatography. *J Chromatogr B Analyt Technol Biomed Life Sci* 2006 Nov; 843: 302-309.

Morris RG, Taylor PJ, Salm P, Wicks FA, Theodossi A. Comparison of the re-introduced MEIA® assay with HPLC-MS/MS for the determination of whole-blood sirolimus from transplant recipients. *Ther Drug Monit* 2006 Apr; 28:164-168.

Morris RG, Jones TE, Goldsworthy SJ, Wagner TJ, Ho H, Horowitz JD. DLIS interference in the Dimension DGNA Digoxin Assay® method and the clinical application of the revised digoxin target range. *Ther Drug Monit* 2006 Jun; 28:454-457.

Sallustio BC, DeGraaf YC, Weekley JS and Burcham PC. Bioactivation of carboxylic acid compounds by UDP-glucuronosyltransferases to DNA-damaging intermediates: role of glycooxidation and oxidative stress in genotoxicity. *Chem Res Toxicol* 2006 May; 19: 683-691.

Westley IS, Ray JE, Morris RG. CEDIA® Mycophenolic Acid assay compared with HPLC-UV in transplant recipient specimens. *Ther Drug Monit* 2006 Oct; 28(5):632-636.

Westley IS, Brogan LR, Morris RG, Sallustio BC. Role of Mrp2 in the hepatic disposition of mycophenolic acid and its glucuronide metabolites: effect of

cyclosporin. *Drug Metab Disp* 2006 Feb; 34(2):261-6. 2006.

Published abstracts

Coller JK, Plevin D, Sallustio BC, Somogyi AA, Morris RG. Relationship between the ABCB1 genetic polymorphism clinical outcomes in renal transplant patients. *Proc IUPHAR*, 2006.

Coller JK, Plevin D, Sallustio BC, Somogyi AA, Morris RG ABCB1 pharmacokinetics and clinical outcome on renal transplant recipients. International Conference of Pharmacogenomics IUPHAR & PRACP, Changsha, China, June 2006.

Westley IS, Morris RG, Evans AM, Sallustio BC. Mycophenolic acid metabolism in Wistar and Mrp2 transporter deficient TR-rat microsomes. *Proc IUPHAR* 2006.

Roediger W, Koh C, Kanter I, Morris R. In vivo nitric oxide is associated with lowered circulating cholesterol and albumin levels. *Nitric Oxide* 14(4):A60. 2006.

Sallustio BC, Westley IS, Evans AM, Morris RG. Glucuronidation of mycophenolic acid by Wistar and TR- rat liver microsomes. *ASCEPT/AHMRC Proc*, November 2006.

Somogyi AA, Davies BJ, Coller JK, Milne RW and Sallustio BC. CYP2D6, 2B6 and 3A4 catalyse the primary oxidative metabolism of perhexiline enantiomers in human liver. 16th International Symposium on Microsomes and Drug Oxidations, Budapest, Hungary, 3-7 September 2006.

Sinclair M, Derlet F, Mardon K, Addison RS, Sallustio BC and Dickinson RG. Gemfibrozil disposition in Wistar and mrp2 transporter-deficient TR- rats. *ASCEPT/AHMRC Proc*, November 2006.

Licari J and Sallustio BC. The effects of (+)- and (-)-enantiomers of perhexiline on HepG2 cell growth. *ASCEPT/AHMRC Proc*, November 2006.

Endocrinology Unit Papers

Phillips P Diabetes 2020 – Re-directing the diabetes drivers. *Australian Diabetes Educator*. 2006; 9;1. 40-41.

Simmons D, Shaw J, McKenzie A, Eaton S, Cameron AJ, Zimmet P. Is grand mul-

tiparity associated with an increased risk of dysglycaemia? *Diabetologia*. 2006 Jul; 49(7): 1522-7.

Phillipov G, Phillips PJ. Resistance to Insulin therapy Among Patients and Providers: Results of the Cross-National Diabetes Attitudes, Wishes, and Needs (DAWN) Study. *Diabetes Care* 2006; 29(4):952-953.

Thomas A, Rajaratnam S, Shanthly N, Oommen R, Seshadri MS. Paget’s Disease of Bone: Experience from a Centre in Southern India. *JAPI*. 2006; (54); (7); 525-529.

Taylor AW, Dal Grande E, Gill TK, Chittleborough CR, Wilson DH, Adams RA, Grant JF, Phillips P, Appleton S, Ruffin RE. How valid are self-reported height and weight? A comparison between CATI self-report and clinic measurements using a large representative cohort study. *ANZ Journal of Public Health* 2006; 30:238-46.

Chittleborough C, Baldock K, Taylor A, Phillips PJ & The North West Adelaide Health Study Team. Health status assessed by the SF-36 along the diabetes continuum in an Australian population. *Quality of Life Research* 2006; (15)(4). 687-694.

Barr ELM et al and the AUSDIAB Steering Committee. Is Peripheral Neuropathy Associated With Retinopathy and Albuminuria in Individuals With Impaired Glucose Metabolism? *Diabetes Care* 2006; 29;5. 1114-1116.

Phillips PJ. Type 2 – Double trouble. *Australian Diabetes Educator*. ADEA 2006; 9;2. 32-35.

Tapp RJ, Dunstan DW, Phillips PJ, Tonkin A, Zimmet PZ, Shaw JE. Association between impaired glucose metabolism and quality of life: Results from the Australian diabetes obesity and lifestyle study. *Diabetes Res Clin Pract*. 2006 Nov;74(2):154-61.

Abstracts

Chittleborough C, Phillips P, Taylor A and the North West Adelaide Health Study Team. Socioeconomic Inequalities among People with Diabetes Aged 65 Years and Over International Diabetes Federation 19th World Diabetes

Congress. Cape Town, South Africa, 3-7 December 2006.

Phillips PJ, Phillips T, Baldock K, Chittleborough C, Taylor A and the North West Adelaide Health Study Team. Diabetes Prevalence and Socioeconomic Disadvantage: Trends from 1994 to 2005. International Diabetes Federation 19th World Diabetes Congress. Cape Town, South Africa, 3-7 December 2006.

Taylor A, Phillips PJ, Chittleborough C. The Health Status of Community Dwellings and Non-Traditional Lands Based Aboriginal and Torres Strait Islander people in South Australia. International Diabetes Federation 19th World Diabetes Congress. Cape Town, South Africa, 3-7 December 2006.

Grant JF, Chittleborough CR, Taylor AW, Dal Grande E, Wilson DH, Phillips PJ, Ruffin R & the North West Adelaide Health Study Team. The North West Adelaide Health Study: methodology and baseline self-reported and biomedical results of a cohort along a chronic disease and risk factor continuum. Epidemiological Perspectives and Innovations. 3;4, 12 April 2006.

Phillips PJ, Phillipov G. Multifactorial Intervention In Type 2 Diabetes: Potential Impact on Coronary Heart Disease. The Endocrine Society’s 88th Annual Meeting. Boston, USA, 24-27 June 2006.

Phillips PJ. Adding PS to the ABCss of Diabetes Care. ASPRID Meeting. Gold Coast, Qld, 21 August 2006. Phillips PJ, Chittleborough C, Taylor A. Cumulative diabetes incidence: ten-fold risk among those with impaired fasting glucose. 2006 ADS-ADEA Annual Scientific Meeting, Gold Coast, Qld, August 23-26 2006.

Phillips PJ, Cottrell J, Chittleborough C, Taylor A. Non-perception of diabetes risk among those at high risk. 2006 ADS-ADEA Annual Scientific Meeting, Gold Coast Qld, August 23-26 2006.

Phelan HT, Alford J, Cornelius S, Giles J. The ADEA Mentoring Initiative. Supporting a culture of collaboration. 2006 ADS-ADEA Annual Scientific Meeting, Gold Coast, Qld, August 23-25 2006.

Jury H, Avery J, Chittleborough C, Taylor A, Phillips P, Ruffin R. Overall Health Status in the North West of Adelaide. Public Health Association of Australia, Sydney, September 2006.

Grant J, Chittleborough C, Taylor A, Phillips P, Ruffin R. Plugging an important research gap: measured incidence of chronic disease from the North West Adelaide Health Study.Australasian Epidemiological Association, Melbourne, September 2006.

Gastroenterology And Hepatology Unit Papers

Bowen JM, Gibson RJ, Cummins AG, Keefe DMK. Intestinal mucositis: The role of the Bcl-2 family, p53 and caspases in chemotherapy-induced damage. *Support Care Cancer* 2006 Jul; 2: 1-19.

Cummins AG, Jones BJ, Thompson FM. Postnatal epithelial growth of the small intestine in the rat occurs by both crypt fission and crypt hyperplasia. *Dig Dis Sci* 2006; 51: 718-723.

Eapen CE, Roberts-Thomson IC. Autoimmune hepatitis. *J Gastroenterol Hepatol* 2006; 21: 1756-7.

Eapen CE, Roberts-Thomson IC. Primary sclerosing cholangitis. *J Gastroenterol Hepatol* 2006; 21: 1862.

Game PA, Roberts-Thomson IC. Solitary fibrous tumor. *J Gastroenterol Hepatol* 2006; 21: 331.

Roberts-Thomson IC. Anomalous pancreaticobiliary ductal junction. *J Gastroenterol Hepatol* 2006; 21: 775.

Santhanam AN, Sillar RW, Roberts-Thomson IC. Gastrointestinal lipomas. *J Gastroenterol Hepatol* 2006; 21: 1628.

Tan KG, Roberts-Thomson IC. Meckel’s diverticulum. *J Gastroenterol Hepatol* 2006; 21: 475.

Abstracts

Abu-Assi R, Gupta N, Lidums I, Moore DJ, Couper R. Capsule endoscopy in children and adolescents: a local experience.

Australian Gastroenterology Meeting, Adelaide, 2006.

Cummins AG, Grose RH, Leung M, Thompson FM. Deficiency of Valpha24+ NK T-cells in Crohn’s disease and in ulcerative colitis. Falk Symposium, Sydney 2006.

Roberts-Thomson IC, Tucker G, Hewett P, Cheung P, Sebben R, Khoo E, Clapton W. Single centre study comparing computed tomography colonography with conventional colonoscopy. Australasian Gastroenterology Meeting, Adelaide, 2006.

Thompson FM, Catto-Smith AG, Cameron DJ, Couper RT, Davidson GP, Day AS, Hammond PD, Moore DJ, Goland G, Cummins AG. Crypt fission and β -catenin activation in the stem cell region of crypts during growth of the small intestine in human infants. Australian Gastroenterology Meeting, Adelaide, 2006.

Gynaecology

TQEH Department of Papers

Azziz R, Carmina E, Dewailly D, Diamanti-Kandarakis E, Escobar-Morreale HF, Futterweit W, Janssen OE, Legro RS, Norman RJ, Taylor AE, Witchel SF. Positions statement: criteria for defining polycystic ovary syndrome as a predominantly hyperandrogenic syndrome: an Androgen Excess Society guideline. *J Clin Endocrinol Metab*. 2006 Nov; 91(11): 4237-45.

Barry C, Dietz HP, Lim Y, Rane AP. An independent audit of the success of mesh repair for the treatment of rectocele defects of the posterior vaginal wall using 3-dimensional ultrasound. *Aust Cont Journal* 2006 12(3) 61-65.

Barry C L, Naidu A, Goodwin S, Lim Y, Rane A Does the MONARC® transobturator suburethral sling cause post-operative voiding dysfunction? A prospective study. *Int Urogynae J* 2006 Jan; 17(1):30-4.

Dietz HP, Barry C, Lim Y, Rane AP. TVT vs Monarc: a comparative study. *Int Urogynaecol J Pelvic Floor Dysfunct*. 2006; 17(6): 566-9.

Hickey TE, Legro RS, Norman RJ. Epigenetic modification of the X chromosome influences susceptibility to polycystic ovary syndrome. *J Clin Endocrinol Metab*. 2006 Jul; 91(7): 2789-91.

Jasper MJ, Tremellen KP, Robertson SA. Reduced expression of IL-6 and IL-1alpha mRNAs in secretory phase endometrium of women with recurrent miscarriage. *J Reprod Immunol*. 2006 Oct 9; [Epub ahead of print].

Jasper MJ, Tremellen KP, Robertson SA. Primary unexplained infertility is associated with reduced expression of the T-regulatory cell transcription factor Foxp3 in endometrial tissue. *Mol Hum Reprod*. 2006 May; 12(5):301-8.

Jasper MJ, Hu DG, Liebelt J, Sherrin D, Watson R, Tremellen KP, Hussey ND. Singleton births after routine preimplantation genetic diagnosis using exclusion testing (D4S43 and D4S126) for Huntington’s disease. *Fertil Steril*. 2006 Mar; 85(3):597-602.

Moran LJ, Noakes M, Clifton PM, Wittert GA, Williams G, Norman RJ. Short-term meal replacements followed by dietary macronutrient restriction enhance weight loss in polycystic ovary syndrome. *Am J Clin Nutr*. 2006 Jul; 84(1): 77-87.

Phipps S, Lim YN, McClinton S, Barry C, Rane A, N'Dow J. Short term urinary catheter policies following urogenital surgery in adults. *Cochrane Database Syst Rev*. 2006 Apr 16;(2): CD 004374.

Smith C, Coyle M, Norman RJ. Influence of acupuncture stimulation on pregnancy rates for women undergoing embryo transfer. *Fertil Steril*. 2006 May; 85(5): 1352-8.

Tsagareli V, Noakes M, Norman RJ. Effect of a very-low-calorie diet on in vitro fertilization outcomes. *Fertil Steril*. 2006 Jul; 86(1): 227-9.

Wang J, Lane M, Norman RJ. Reducing multiple pregnancy from assisted reproduction treatment: educating patients and medical staff. *Med J Aust*. 2006 Feb 20; 184(4): 180-1.

Warnes GM, Norman RJ. Quality management systems in ART: are they really needed? An Australian clinic’s experi-

ence. *Best Pract Res Clin Obstet Gynaecol*. 2006 Nov 2; [Epub ahead of print].

Wu R, Fujii S, Ryan NK, Van der Hoek KH, Jasper MJ, Sini I, Robertson SA, Robker RL, Norman RJ. Ovarian leukocyte distribution and cytokine/chemokine mRNA expression in follicular fluid cells in women with polycystic ovary syndrome. *Hum Reprod*. 2006 Sep 22; [Epub ahead of print].

Book chapters

Cook J. Screening for cancer of the cervix. In: Finn M, Bowyer L, Carr S, O'Connor V, Vollenhoven B, eds. *Women's Health: A Core Curriculum*. Mosby, Sydney, 2005, 254-8.

Cook J. Cervical carcinoma. In: Finn M, Bowyer L, Carr S, O'Connor V, Vollenhoven B, eds. *Women's Health: A Core Curriculum*. Mosby, Sydney, 2005, 259-61

Abstracts

Balakrishnan S; Lim Y; Barry C; Corsitaans A; Rane A. Sling distress – a subanalysis of IVS tapes from the SUSPEND trial. Athens 2006 Abstract IUGA.

Lim Y, Muller R, Hitchins S, Tang A; Naidu A, Greenland H, Barry C, Fraser M, Rane AP. Is it worth incorporating mesh in posterior colporrhaphy? A randomised study. Athens 2006. Abstract IUGA.

Lim Y, Muller R, Barry C, Rane AP. A long term review of posterior vaginal repair with Vypro II mesh. Athens 2006. Abstract IUGA.

Balakrishnan S; Lim Y; Barry C; Corsitaans A; Rane A. Prospective evaluation of the safety and efficacy of the APOGEE system for the treatment of vault prolapse. Athens 2006. Abstract IUGA.

Balakrishnan S; Lim Y; Barry C; Corsitaans A; Rane A. First prospective long term study of the PEREGEE trans-obturator cystocele system. Athens 2006. Abstract IUGA.

Barry C; Lim Y. An audit of the use of intra-vesical steroid injection for the treatment of interstitial cystitis. Christchurch, NZ, 2006. Abstract ICS.

Barry C; Lim Y; Muller R; Hitchins S; Corsitaans A; Greenland H; Frazer M; Foote

A; Rane APA multicentre, prospective, randomised trial comparing the retropubic (RP-SUS) approach versus the transobturator approach (TO-SUS) for tension free, suburethral sling treatment of urodynamic stress incontinence – The TORP study. Christchurch, NZ, 2006. Abstract ICS.

Haematology and Medical Oncology

Combined Departments of Papers

Brown AL, Wilkinson CR, Waterman SR, Kok CH, Salerno DG, Diakiw SM, Reynolds B, Scott HS, Tsykin A, Glonek GF, Goodall GJ, Solomon PJ, Gonda TJ and D'Andrea RJ. Genetic regulators of myelopoiesis and leukemic signalling identified by gene profiling and linear modelling. *J Leukoc Biol* 2006; 80(2): 433-47.

Carney AS, Tan LW, Adams D, Varelias A, Grasby SDC, Wormald PJ. Th2 immunological inflammation in allergic fungal sinusitis, non-allergic eosinophilic fungal sinusitis and chronic rhinosinusitis. *Am J Rhinol* 2006; 20(2): 145-9.

Daehn IS, Varelias A, Rayner TE. Sodium butyrate induced keratinocyte apoptosis. *Apoptosis* 2006; 11(8): 1379-90.

Hutton JF, Rozenkov V, Khor FSL, D'Andrea RJ* and Lewis IL* (*equal senior author). BMP4 contributes to the maintenance of primitive cord blood hematopoietic progenitors in an ex vivo stroma-noncontact co-culture system. *Stem Cells and Development* 2006 Dec; 15(6).

Laidlaw AM, Copeland B, Ross CM, Hardingham JE. Extent of over-expression of hepatocyte growth factor receptor in colorectal tumors is dependent on the choice of normaliser. *Biochem Biophys Res Commun* 2006; 341: 1017–1021.

Leong DP, Kleinig TJ, Kimber TE, Bardy PG. Severe hypermagnesaemia related to laxative use in acute gastrointestinal graft-versus-host disease. *Bone Marrow Transplant* 2006; 38(1): 71-2.

Lloyd JM, Mclver CM. Stephenson SA, Hewett PJ, Reiger N, Hardingham JE. Identification of early stage color-

ectal cancer patients at risk of relapse post-resection by immunobead RT-PCR analysis of peritoneal lavage fluid for malignant cells. *Clin Cancer Res* 2006; 12:417-423.

Luke C, Nguyen A-M, To B, Seshadri R, Hughes T, Bardy PG, Colbeck M, Buranyi-Trevarton D, McMellon M, Roder D. Myeloid leukaemia treatment and survival – the South Australian experience, 1977 to 2002. *Asian Pac J Cancer Prev* 2006; 7: 227-33.

McRae S, Tran H, Schulman S, Ginsberg J, Kearon C. Effect of patient's sex on risk of recurrent venous thromboembolism: a meta-analysis. *Lancet* 2006; 29;368(9533): 371-8.

McRae SJ, Ginsberg JS. Update in the diagnosis of deep vein thrombosis and pulmonary embolus. *Curr Opin Anaesthesiol* 2006; 19(1): 44-51.

Mullighan CG, Bogdanos DP, Vergani D, Bardy PG. Cytochrome P450 1A2 is a target antigen in hepatitic graft-versus-host disease. *Bone Marrow Transplant* November 2006; 38(10):703-5.

Murphy N, Diviney M, Szer J, Bardy PG, Grigg A, Hoyt R, King B, MacGregor L, Holdsworth R, McCluskey J, and Tait B. Donor methylenetetrahydrofolate reductase genotype is associated with GVHD in Haemopoietic Stem Cell Transplant Patients treated with Methotrexate. *Bone Marrow Transplant* 2006; 37(8): 773-9.

Pittman K, Olver I, Koczwara B, Kotasek D, Patterson W Keefe D, Karapetis C, Parnis F, Moldovan S, Yeend S, Price T. Gemcitabine and Carboplatin in carcinoma of unknown primary site: a phase II Adelaide Cancer trials and Education Collaborative (ACTEC) study. *Br J Cancer* 2006; 95(10): 1309-1313.

Prasad S, Coates T, Humphreys I, Russ G, Bardy PG, Gilchrist R, Svetlana K. MCH Class II DRB Genotyping is highly predictive of in-vitro allo reactivity in the common marmoset. *J Immunol Methods* 2006; 314(1-2): 153-63.

Ruzehaji G, Daehn IS., Varelias A, Rayner TE. Exploring cellular interactions relevant to wound healing. Primary Intention (Supp Ed).

Tran H, McRae SJ, Ginsberg J. Anticoagulant treatment of deep vein thrombosis and pulmonary embolism. *Clin Geriatr Med* 2006; 22(1): 113-34.

Varelias A, Cowin, AJ, Harries R.C, Belford DA., Cooter RD, Fitridge RA, and Rayner TE. Mitogenic bovine whey extract modulates matrix metalloproteinase-2, -9 and tissue inhibitor of matrix metalloproteinase-2 levels in chronic leg ulcers. *Wound Repair Regen* 2006; 14(1): 28-37.

Worthley DL, Bardy PG, Gordon DL, Mullighan CG. Mannose-Binding Lectin and Maladies of the Bowel and Liver. *World J Gastroenterol* 2006 Oct; 12(40):6420-8.

Abstracts

Arentz G, Chataway T, Hardingham J. The identification of candidate colorectal cancer biomarkers using laser capture microdissection and proteomics. Lorne Proteomics Conference Lorne, Victoria, February 4-6 2006.

Arentz G, Chataway T, Hardingham J. The identification of candidate colorectal cancer biomarkers using laser microdissection and proteomics. Aust Soc Med Research, Adelaide, June 2 2006.

Chai, Pittman K, Patterson W, Price T. Patterns of survival at QEHL: NSCLC and small cell lung cancer. Lung Cancer Trial meeting, June 2006.

D'Andrea R. Poster accepted for presentation at the American Society for Hematology Annual Meeting, "Common Leukemic Signaling Pathways Identified by Comparative Analysis of GM-CSF and FLT3 Activated Receptor Mutations", December 2006.

Kichenadasse G, Yeend S, Severin V, Nott L, Pittman K, Patterson W, Price T. Representation of the elderly in oncology clinical trials. *IMJ* 2006; (36) Suppl 4 155#.

Michael M, Leong T, Price T, Ganju V, Strickland A, Jefford N, Ngan S, Milner Am Zalcborg H. Phase I trial of Capecitabine (CAP) and Gemcitabine (G) with concurrent radical radiotherapy in locally advance pancreatic cancer (PAC), *Annals Onc*, 2006; Vol 17, Suppl 6 #PO11.

Michael M, Leong T, Price T, Ganju V, Strickland A, Jefford N, Ngan S, Milner Am Zalcborg. Phase I trial of Capecit-

abine (CAP) and Gemcitabine (G) with concurrent radical radiotherapy in locally advanced pancreatic cancer (PAC). *Annals Onc*, 2006; Vol 17, 2083#.

Nott L, Yeend S, Pirc L, Pittman K, Patterson W, Kichenadasse G, Price T. Evaluation of cancer clinical trial accrual patterns. *IMJ* 2006; (36) Suppl 4, 155#.

Price T, Roder D, Pittman K, Patterson W, Colbeck M, Reiger N, Hewett P, Rodda D, Maddern G, Luke C. Survival trends for advanced colorectal cancer (CRC): Are improvements only for patients in clinical trials? *Proc ASCO* 2006; #6124.

Schmoll H, Tabernero M, Nowacki J, Maroun J, Price T, Lim R, Van Cutsem E, De Braud F, Haller D. Final safety findings for randomised phase III trial of Capecitabine + Oxaliplatin vs bolus 5FU/LV as adjuvant therapy for patients with stage III colon cancer. *Proc ASCO* 2006; #3569.

Schmoll H, Tabernero M, Nowacki J, Maroun J, Price T, Lim R, Van Cutsem E, De Braud F, Haller D. Capecitabine + Oxaliplatin (Xelox) vs bolus 5-FU as adjuvant therapy for patients (pts) with stage III colon cancer: final safety findings from a randomized phase III trial. *Annals Onc*, 2006; Vol 17, Suppl 6 P023.

Severin V, Pittman K, Lloyd M, Price T, Patterson W, Moretti K, Luke C. Survival and primary treatments for cases of invasive bladder cancer by person and tumour characteristics in a teaching hospital setting. COSA November 2006.

Intensive Care Unit Papers

Peake SL, Moran JL, Lloyd AJ, Walker M. The effect of obesity on 12-month survival following admission to intensive care: a prospective study. *Crit Care Med* 2006; 34:2929-2939.

Peake SL, Peter JV, Chan L, Wise R, Butcher RA, Grove DI. First report of septicemia caused by an obligately anaerobic *Staphylococcus aureus* in a human. *J Infect Dis* 2006; 44:2311-2313.

Peter JV, Rogers N, Murty S, Gerace R, Mackay R, Peake SL. An unusual cause

of severe metabolic acidosis. *Med J Aust* 2006; 185:223-225.

Mitchell I, Finfer S, Bellomo R, Higlett T and the ANZICS Clinical Trials Group Glucose Management Investigators. Management of blood glucose in the critically ill in Australia and New Zealand: a practice survey and inception cohort study. *Intensive Care Medicine* 2006; 32:867.

Moran JL, Solomon PJ. Therapeutic Hypothermia after cardiac arrest - once again. *Critical Care and Resuscitation* 2006; 8(2):151-154.

Peter JV, Birader V, Peake SL. Emphysematous pyelonephritis. *MJA* 2006; 184:533.

Peter JV, Moran JL, Phillips-Hughes J, Graham P, and Bersten AD. Effect of non-invasive positive pressure ventilation (NIPPV) on mortality in patients with acute cardiogenic pulmonary edema: a meta-analysis. *Lancet* 2006; 367:1155-1163.

Peter JV, Moran JL, Graham P. Oxime therapy and outcomes in human organophosphate poisoning: An evaluation using meta-analytic techniques. *Critical Care Medicine* 2006; 34(2):502-510.

Peter JV, Moran JL, Graham P. Oxime use after deliberate release. *Critical Care Medicine* 2006; 34(12):3065.

Peter JV, Moran JL, Graham P. Mortality reduction in acute organophosphate poisoning: A challenging task ahead. *Critical Care Medicine* 2006; 34(8):2265-2266.

Book chapter

Peake SL, Ghelani D. Anesthesia for the immunocompromised patient. In: Perioperative cancer medicine: Anesthesia, Critical Care and Pain Control in Cancer Patients. Shaw AD, Burton AW, Fields A, Riedel BJ, Feeley TW (Eds) 2006.

Medicine

University of Adelaide, Discipline of **Papers** Adams RJ, Wilson DH, Taylor AW, Daly A, d'Espaignet ET, Dal Grande E, and Ruffin RE. Coexistent Chronic Conditions and Asthma Quality of Life: A Population-Based Study. *Chest* 2006; 129: 285-291.

Appleton SL, Adams RJ, Wilson DH, Taylor AW, Ruffin RE, on behalf of the North West Adelaide Health Study Team. Central obesity is associated with nonatopic but not atopic asthma in a representative population sample. *Journal of Allergy and Clinical Immunology*, 2006 Dec; 118(6):1284-91.

Appleton S, Jones T, Poole P, Pilotto L, Adams R, Lasserson TJ, Smith B, Muhammad J. Ipratropium bromide versus long-acting beta-2 agonists for stable chronic obstructive pulmonary disease. *Cochrane Database Syst Rev*. 2006 Jul; 19;3:CD006101.

Appleton S, Jones T, Poole P, Pilotto L, Adams R, Lasserson TJ, Smith B, Muhammad J. Ipratropium bromide versus short acting beta-2 agonists for stable chronic obstructive pulmonary disease. *Cochrane Database Syst Rev*. 2006 Apr; 19;(2):CD001387.

Appleton S, Poole P, Smith B, Veale A, Lasserson TJ, Chan MM. Long-acting beta2-agonists for poorly reversible chronic obstructive pulmonary disease. *Cochrane Database Syst Rev*. 2006 Jul; 19;3:CD001104.

Grant JF, Chittleborough CR, Taylor AW, Dal Grande E, Wilson DH, Phillips PJ, Adams RJ, Cheek J, Price K, Gill TK, Ruffin RE. The North West Adelaide Health Study: detailed methods and baseline segmentation of a cohort for selected chronic diseases. *Epidemiologic Perspectives & Innovations* 2006; 3:4.

Hill CL, Gill T, Taylor AW, Daly A, Grande ED Adams RJ. Psychological factors and quality of life in arthritis: a population-based study. *Clin Rheumatol*. 2006 Oct; 10.1007/s10067-006-0439-3.

Lang CJ, Murgia C, Leong M, Tan LW, Perozzi G, Knight D, Ruffin RE, Zalewski PD. Anti-inflammatory effects of zinc and alterations in zinc transporter mRNA in mouse models of allergic inflammation. *Am J Physiol Lung Cell Mol Physiol* 2006 Nov 3; [E pub ahead of print]

Lang, CJ, Barnett, EK, Doyle, IR. Stretch and CO2 modulate the inflammatory response of alveolar macrophages through independent changes in metabolic activity. *Cytokine* 2006 Mar; 33(6): 346-351.

Lu T-Y T, Pink J, Chin M, Whitten L, Hill CL, Adams RJ, Marchant Y, Gibb C. A champion-driven pathway towards quality improvement in the medical management of osteoporotic fractures. *MJA* 2006;185:341-342.

Nitschke M, Pilotto L, Attewell RG, Smith BJ, Pisaniello D, Martin J, Ruffin RE, Hiller J. A cohort study of indoor nitrogen dioxide and house dust mite exposure in asthmatic children. *Journal of Occupational and Environmental Medicine*. 2006; 48:462-469.

Murgia C, Lang C, Truong-Tran AQ, Grosser D, Jayaram L, Ruffin RE, Perozzi G, Zalewski PD. Zinc and its specific transporters as potential targets in airway disease. *Current Drug Targets* 2006 May; 7:607-627.

Roberts GW, Adams RJ. Impact of introducing anticoagulation related prescribing guidelines in a hospital setting using academic detailing. *Therapeutics Clin Risk Management* 2006; 2:309-316.

Taylor A, Dal Grande E, Gill T, Chittleborough C, Wilson D, Adams R, Grant J, Phillips P, Appleton S, Ruffin R. How valid are self-reported height and weight? A comparison between CATI self-reported and clinic measurements using a large cohort study. *Australian and New Zealand Journal of Public Health* 2006; 30(3):238-46.

Taylor AW, Dal Grande E, Gill TK, Chittleborough CR, Wilson DH, Adams RJ, Grant JF, Phillips P and Ruffin RE. Do people with risky behaviours participate in biomedical cohort studies? *BMC Public Health* 2006 Jan; 6:11.

Taylor AW, Dal Grande E, Gill TK, Chittleborough CR, Wilson DH, Adams RJ, Grant JF, Phillips P, Appleton S, Ruffin RE. How valid are self-reported height and weight? A comparison between CATI self-report and clinic measurements using a large cohort study. *Aust N Z J Public Health* 2006 Jun; 30(3):238-46.

Wilson DH, Adams RJ, Tucker G, Appleton S, Taylor AW, Ruffin RE. Trends in asthma prevalence and population changes in South Australia 1990-2003. *MJA* 2006;184(5): 226-9.

Wilson DH, Adams RJ, Appleton S, Ruffin RE. Trends in asthma prevalence

in South Australia 1990 to 2003. Has asthma prevalence reached a plateau? *MJA* 2006;184:226-229.

Zalewski PD, Truong-Tran AQ, Lincoln S, Ward D, Shankar A, Coyle P, Jayaram L, Copley A, Grosser D, Murgia C, Lang C, Ruffin RE. Use of a zinc fluorophores to measure labile pools of zinc in body fluids and cell-conditioned media. *Biotechniques* 2006; 40:509-520.

Zalewski PD. Zinc Metabolism in the Airway: *Basic Mechanisms and Drug Targets Current Opinions in Pharmacol* 2006 Jun; 6(3):237-43.

Published Abstracts

Adams R, Appleton S, Wilson D, Ruffin R. Association of asthma, cholesterol and statins in a population sample. [2006 International Conference of The American Thoracic Society, May 19-24 San Diego, USA] *Amer J Resp Crit Care Med*, Abstract Issue : A527.

Adams R, Wilson D, Appleton A, Ruffin RE. Targeting asthma control: how effective are we? [Thoracic Society of Australia and New Zealand & Australian and New Zealand Society of Respiratory Science, Annual Scientific Meetings, Canberra, 24-29 March 2006] *Respirology* 2006; 11(Suppl 2):A36.

Appleton S, Adams R, Wilson D, Taylor A, Ruffin RE. Central obesity is associated with non-atopic but not atopic asthma: an epidemiological study. [Thoracic Society of Australia and New Zealand & Australian and New Zealand Society of Respiratory Science, Annual Scientific Meetings, Canberra, 24-29 March 2006] *Respirology* 2006; 11(Suppl 2):A9.

Appleton SL, Adams RJ, Wilson DH, Taylor AW, Ruffin RE. Asthma severity is not modified by central obesity. [16th European Respiratory Society Annual Congress, Munich, Germany Sep 2-6, 2006] *European Respiratory Journal* 2006 Sept; Vol 28, Sup 50, Abstract P907.

Chittleborough CR, Taylor AW, Wilson DH, Adams RJ, Ruffin RE. Gender differences in inequalities in asthma: The North West Adelaide Health study. [16th European Respiratory Society Annual Congress, Munich, Germany Sep 2-6, 2006] *European Respiratory Journal*, 2006 Sept; Vol 28, Sup 50, Abstract 3058.

Jayaram L, Pickering S, Lincoln S, Ward D, Ruffin RE, Zalewski PD. Asthma is associated with reduced sputum labile and total zinc measurements. [2006 International Conference of The American Thoracic Society, May 19-24 San Diego, USA] *Amer J Resp Crit Care Med*, Abstract Issue: A596.

Lang C, Murgia C, Zalewski P, Ruffin RE. Zinc supplementation decreases eosinophilia in mice with allergic inflammation: an effect mediated at the systemic, rather than local level. [Japanese Respiratory Society Annual Meeting 1-3 June 2006 Tokyo Japan]. *The Journal of the Japanese Respiratory Society* 2006; 44(June Suppl): 108.

Lang CJ, Murgia C, Zalewski PD, Ruffin RE. Zinc supplementnration reduces eosinophilia in mice with allergic inflammation: Possibly via systemic mechanisms. [2006 International Conference of The American Thoracic Society, May 19-24 San Diego, USA] *Amer J Resp Crit Care Med* 2006; Abstract Issue : A341.

Lang C, Murgia C, Zalewski P, Ruffin RE. Zinc supplementation decreases eosinophilia in mice with allergic inflammation. [Thoracic Society of Australia and New Zealand & Australian and New Zealand Society of Respiratory Science, Annual Scientific Meetings, Canberra, 24-29 March 2006] *Respirology* 2006; 11(Suppl 2):A9.

Ruffin RE, Wilson DH, Adams RJ, Appleton SL, Taylor AW. South Australian asthma surveillance – trends to 2005. [16th European Respiratory Society Annual Congress, Munich, Germany Sep 2-6, 2006] *European Respiratory Journal*, 2006 Sept; Vol 28, Sup 50, Abstract P1399.

R Ruffin, S Appleton, D Wilson, R Adams, A Taylor. Bronchil Asthma Epidemiology. [11th Congress of the Asian Pacific Society of Respirology (APSR), Nov 19-22 2006 Kyoto, Japan]. *Respirology* 2006; 11(Supp 5):A251.

Wilson DH, Tucker G, Adams RJ, Appleton S, Ruffin RE. Changes in asthma and obesity over a decade. How do they relate to each other? [16th European Respiratory Society Annual Congress, Munich, Germany Sep 2-6, 2006] *European Respiratory Journal*, 2006 Sept; Vol 28, Sup 50, Abstract P906.

Wilson DH, Tucker G, Adams RJ, Appleton S, Ruffin RE. COPD – future prospects for women. [16th European Respiratory Society Annual Congress, Munich, Germany Sep 2-6, 2006] *European Respiratory Journal*, 2006 Sept; Vol 28, Sup 50, Abstract P2598.

Neurology

Papers

Armstrong CA, Bevan SN, Gormley KT, Markus HS, Koblar SA. Tissue Plasminogen Activator -7351C/T Polymorphism and Lacunar Stroke. *Stroke* 2006; 37(2):329.

Jannes J, Hamilton-Bruce AM, Koblar SA. Tissue Plasminogen Activator -7351C/T Polymorphism and Lacunar Stroke. *Stroke* 2006; 37(2):329-330.

Milton AG, Jannes J, Hamilton-Bruce MA, Koblar SA. Activating Mutation of the Renal Epithelial Chloride Channel CIC-Kb Predisposing to Hypertension. *Hypertension* 2006; 47(3):e12-13.

Vidovic M, Nighorn A, Koblar SA, Maleszka R. Eph receptor and ephrin signalling in developing and adult brain of the honeybee (*Apis mellifera*). *J Neurobiology* 2006 Dec; [E pub ahead of print].

Nuclear Medicine

Unit

Papers

Barnden L, Behin-Ain S, Data-driven optimization of brain SPECT processing for voxel-based statistical analysis, *IEEE Trans Nucl Sci* 2006; 53: 2822-2826.

Barnden L, Dickson J, Hutton B, Detection and validation of the body edge in low count emission tomography images, *Comp Meth Prog Biomed* 2006; 84: 153-161.

Barnden L, Unger S, A figure-of-merit for brain SPECT normal databases and evaluation of the effect of attenuation and scatter correction, reconstruction algorithm and global scaling options in voxel-based analysis, *ANZ Nucl Med* 2006; 37: 5-9.

Obstetrics And

Gynaecology

University of Adelaide,

Discipline of

(Research Centre For

Reproductive Health)

Papers

Azziz R, Carmina E, Dewailly D, Diamanti-Kandarakis E, Escobar-Morreale HF, Futterweit W, Janssen OE, Legro RS, Norman RJ, Taylor AE, Witchel SF. Positions statement: criteria for defining polycystic ovary syndrome as a predominantly hyperandrogenic syndrome: an Androgen Excess Society guideline. *J Clin Endocrinol Metab*. 2006 Nov; 91(11):4237-45.

Bagg MA, Nottle MB, Grupen CG, Armstrong DT. Effect of dibutyl cAMP on the cAMP content, meiotic progression, and developmental potential of in vitro matured pre-pubertal and adult pig oocytes. *Mol Reprod Dev*. 2006 Oct; 73(10):1326-32.

Brinkworth GD, Noakes M, Moran LJ, Norman R, Clifton PM. Flow-mediated dilatation in overweight and obese women with polycystic ovary syndrome. *BJOG*. 2006 Nov; 113(11):1308-14.

Clark AR, Stokes YM, Lane M, Thompson JG. Mathematical modelling of oxygen concentration in bovine and murine cumulus-oocyte complexes. *Reproduction*. 2006 Jun; 131(6):999-1006.

de Lacey S. Embryo research: is disclosing commercial intent enough? *Hum Reprod*. 2006 Jul; 21(7):1662-7.

Feil D, Lane M, Roberts CT, Kelley RL, Edwards LJ, Thompson JG, Kind KL. Effect of culturing mouse embryos under different oxygen concentrations on subsequent fetal and placental development. *J Physiol*, 2006 Apr; 572(Pt 1):87-96.

Gardner DK, Lane M. One-step versus two-step culture of mouse preimplantation embryos. *Hum Reprod*. 2006 Jul; 21(7):1935-6; author reply 1936-9. Gatford KL, de Blasio M, Horton DM, Dodic M, Kind KL. Perinatal programming of adult metabolic homeostasis: lessons from experimental studies. In: Early Life Origins of Adult Health and

Disease. Wintour-Coghlan EM, Owens JA (editors) Landes Biosciences, Texas USA 2006.

Gilchrist RB, Thompson JG. Oocyte maturation: Emerging concepts and technologies to improve developmental potential in vitro. *Theriogenology*. 2006 Nov 6.

Gilchrist RB, Ritter LJ, Myllymaa S, Kaivo-Oja N, Dragovic RA, Hickey TE, Ritvos O, Mottershead DG. Molecular basis of oocyte-paracrine signalling that promotes granulosa cell proliferation. *J Cell Sci*. 2006 Sep 15; 119(Pt 18):3811-21.

Gruppen CG, Fung M, Armstrong DT. Effects of milrinone and butyrolactone-I on porcine oocyte meiotic progression and developmental competence. *Reprod Fertil Dev*. 2006; 18(3):309-17.

Hart R, Norman R. Polycystic ovarian syndrome - prognosis and outcomes. *Best Pract Res Clin Obstet Gynaecol*. 2006 Oct; 20(5):751-78.

Harvey AJ, Santos AN, Kirstein M, Kind KL, Fischer B, Thompson JG. Differential expression of oxygen-regulated genes in bovine blastocysts. *Mol Reprod Dev*. 2006 Sep 22; [Epub ahead of print].

Herrick J, Lane M, Gardner DK, Krisher RL. Metabolism, protein content and in vitro embryonic development of goat oocytes. *Molecular Reproduction and Development* 2006; 73(2):256-266.

Hickey TE, Legro RS, Norman RJ. Epigenetic modification of the X chromosome influences susceptibility to polycystic ovary syndrome. *J Clin Endocrinol Metab*. 2006 Jul; 91(7):2789-91.

Hussein TS, Thompson JG, Gilchrist RB. Oocyte-secreted factors enhance oocyte developmental competence. *Dev Biol*. 2006 Aug 15; 296(2):514-21.

Kelley RL, Kind KL, Lane M, Robker RL, Thompson JG, Edwards LJ. Recombinant human follicle-stimulating hormone alters maternal ovarian hormone concentrations and the uterus and perturbs fetal development in mice. *Am J Physiol Endocrinol Metab*. 2006 Oct; 291(4):E761-70.

Kind KL, Moore VM, Davies MJ. Diet around conception and during pregnancy--effects on fetal and neonatal outcomes. *Reprod Biomed Online*. 2006 May; 12(5):532-41.

Lane M, Gardner DK. Embryo culture medium: which is the best? *Best Pract Res Clin Obstet Gynaecol*. 2006 Nov 4; [Epub ahead of print].

Lord JM, Norman R. Obesity, polycystic ovary syndrome, infertility treatment: lifestyle modification is paramount. *BMJ*. 2006 Mar 11; 332(7541):609.

Moran LJ, Noakes M, Clifton PM, Wittert GA, Williams G, Norman RJ. Short-term meal replacements followed by dietary macronutrient restriction enhance weight loss in polycystic ovary syndrome. *Am J Clin Nutr*. 2006 Jul; 84(1):77-87.

Moran LJ, Brinkworth G, Noakes M, Norman RJ. Effects of lifestyle modification in polycystic ovarian syndrome. *Reprod Biomed Online*. 2006 May; 12(5):569-78. Review.

Norman R, Davies M, Wang J, Lane M, Norman R. Prevention of multiple gestation in IVF: Introduction to Theme. *Aust N Z J Obstet Gynaecol*. 2006 Dec; 46 Suppl 1:S14-6.

O'Leary S, Jasper MJ, Robertson SA, Armstrong DT. Seminal plasma regulates ovarian progesterone production, leukocyte recruitment and follicular cell responses in the pig. *Reproduction*. 2006 Jul; 132(1):147-58.

Prasad S, Humphreys I, Kireta S, Gilchrist RB, Bardy P, Russ GR, Coates PT. MHC Class II DRB genotyping is highly predictive of in-vitro alloreactivity in the common marmoset. *J Immunol Methods*. 2006 Jul 31; 314(1-2):153-63.

Robertson SA, O'Leary S, Armstrong DT. Influence of semen on inflammatory modulators of embryo implantation. *Reprod Suppl*. 2006; 62:231-45.

Smith C, Coyle M, Norman RJ. Influence of acupuncture stimulation on pregnancy rates for women undergoing embryo transfer. *Fertil Steril*. 2006 May; 85(5):1352-8.

Sutton-McDowall ML, Mitchell M, Cetica P, Dalvit G, Pantaleon M, Lane M, Gilchrist RB, Thompson JG. Glucosamine supplementation during in vitro maturation inhibits subsequent embryo development: possible role of the hexosamine pathway as a regulator of developmental competence. *Biol Reprod*. 2006 May; 74(5):881-8.

Stankiewicz M, Norman R. Diagnosis and management of polycystic ovary syndrome: a practical guide. *Drugs*. 2006; 66(7):903-12.

Thompson JG. The impact of nutrition of the cumulus oocyte complex and embryo on subsequent development in ruminants. *J Reprod Dev*. 2006 Feb; 52(1):169-75.

Thompson J, Lane M. The difference in pregnancy rates between elective single embryo transfer (SET) compared to double embryo transfer is dependent on the implantation rates of embryos being transferred. Using mathematical modeling to determine when SET becomes a viable option. *Hum Reprod*. 2006 Aug; 21(8):2195; author reply 2195-6.

Tsagareli V, Noakes M, Norman RJ. Effect of a very-low-calorie diet on in vitro fertilization outcomes. *Fertil Steril*. 2006 Jul; 86(1):227-9.

Wang J, Lane M, Norman RJ. Reducing multiple pregnancy from assisted reproduction treatment: educating patients and medical staff. *MJA*. 2006 Feb 20; 184(4):180-1.

Wang JX. Life table (survival) analysis to generate cumulative pregnancy rates in assisted reproduction: an alternative method of calculating the cumulative pregnancy rate in assisted reproduction technology. *Hum Reprod*. 2006 Jan;21(1):1-2.

Warnes GM, Norman RJ. Quality management systems in ART: are they really needed? An Australian clinic's experience. *Best Pract Res Clin Obstet Gynaecol*. 2006 Nov 2; [Epub ahead of print].

Wu R, Fujii S, Ryan NK, Van der Hoek KH, Jasper MJ, Sini I, Robertson SA, Robker RL, Norman RJ. Ovarian leukocyte distribution and cytokine/chemokine mRNA expression in follicular fluid cells

in women with polycystic ovary syndrome. *Hum Reprod*. 2006 Sep 22; [Epub ahead of print].

Zander DL, Thompson JG, Lane M. Perturbations in mouse embryo development and viability caused by ammonium are more severe after exposure at the cleavage stages. *Biol Reprod*. 2006 Feb; 74(2):288-94.

Otolaryngology

Head and Neck Surgery,
Department of
Papers
Journal articles

Carney SA, Wormald PJ. The current management of rhinosinusitis. *Modern Medicine of South Africa* 2006; January:16, 20–22.

Carney SA, Tan LW, Adams D, Varelias A, Ooi EH, Wormald PJ. Th2 immunological inflammation in allergic fungal sinusitis, nonallergic eosinophilic fungal sinusitis, and chronic rhinosinusitis. *American Journal of Rhinology* 2006; 20:145–149.

Chen C, Selva D, Floreani S, Wormald PJ. Endoscopic optic nerve decompression for traumatic optic neuropathy: an alternative. *Otolaryngology–Head and Neck Surgery* 2006; 135:155–157. Douglas R, Hawke L, Wormald PJ.

Topical anaesthesia before nasendoscopy: a randomized controlled trial of co-phenylcaine compared with lignocaine. *Clinical Otolaryngology* 2006; 31:33–35.

Douglas R, Wormald PJ. Endoscopic surgery for juvenile nasopharyngeal angiofibroma: where are the limits? *Current Opinion in Otolaryngology & Head and Neck Surgery* 2006; 14:1–5.

Douglas R, Wormald PJ. Pterygopalatine fossa infiltration through the greater palatine foramen: where to bend the needle. *The Laryngoscope* 2006; 116:1255–1257.

Douglas R, Wormald PJ. Endoscopic vidian neurectomy. *Operative Techniques in Otolaryngology* 2006; 17:174–177.

Floreani S, Nair SB, Switajewski MC, Wormald PJ. Endoscopic anterior eth-

moidal artery ligation: a cadaver study. *The Laryngoscope* 2006; 116:1263–1267.

Hissaria P, Smith W, Wormald PJ, Taylor J, Vadas M, Gillis D, Kette K. Short course of systemic corticosteroids in sinonasal polyposis: a double-blind, randomized, placebo-controlled trial with evaluation of outcome measures. *Journal of Allergy and Clinical Immunology* 2006; 118:128–133.

Joniau S, Wong I, Rajapaksa S, Carney SA, Wormald PJ. Long-term comparison between submucosal cauterization and powered reduction of the inferior turbinates. *The Laryngoscope* 2006; 116:1612–1616.

Karakousis A, Tan L, Ellis D, et al. An assessment of the efficiency of fungal DNA extraction methods for maximizing the detection of medically important fungi using PCR. *Journal of Microbiological Methods* 2006; 65:38–48.

Leibovitch I, James CL, Wormald PJ, Selva D. Orbital eosinophilic angiocentric fibrosis. *Ophthalmology* 2006.

Leibovitch I, Selva D, Tsirbas A, Greenrod E, Pater J, Wormald PJ. Paediatric endoscopic endonasal dacryocystorhinostomy in congenital nasolacrimal duct obstruction. *Graefe's Archive for Clinical and Experimental Ophthalmology* 2006. Leibovitch I, Sheikh I, Selva D, Wormald P, Malhotra R. Endonasal endoscopic assisted replacement of lacrimal drainage tubes. *Orbit* 2006; 24:191–194.

Mann BW, Wormald PJ. Endoscopic assessment of the dacryocystorhinostomy ostium after endoscopic surgery. *The Laryngoscope* 2006; 116:1172–1174.

Pant H, Kette FE, Smith WB, Macaradle PJ, Wormald PJ. Eosinophilic mucus chronic rhinosinusitis: clinical subgroups or a homogeneous pathogenic entity? *The Laryngoscope* 2006; 116:1241–1247.

Robinson SR, Wormald PJ. Endoscopic vidian neurectomy. *American Journal of Rhinology* 2006; 20:197–200.

Singh B, Wormald PJ. Endoscopic assessment of the dacryocystorhinostomy (DCR) ostium after endoscopic sinus surgery. *Laryngoscope* 2006; 116(7):1172–1174.

Smith WB, Wormald PJ. Allergy and sinus disease. *Medical Journal of Australia* 2006; 185(10):572.

Tsirbas A, Wormald PJ. Mechanical endonasal dacryocystorhinostomy with mucosal flaps. *Otolaryngologic Clinics of North America* 2006; 39:1019–1036.

Wormald PJ, Boustred RN, Le T, Hawke L, Sacks R. A prospective single-blind randomized controlled study of use of hyaluronic acid nasal packs in patients after endoscopic sinus surgery. *American Journal of Rhinology* 2006; 20:7–10.

Wormald PJ. Three-dimensional building block approach to understanding the anatomy of the frontal recess and frontal sinus. *Operative Techniques in Otolaryngology* 2006; 17:2–5.

Wormald PJ, Robinson SR. Transnasal endoscopic resection of benign tumors occurring from or extending into the infratemporal fossa. *Operative Techniques in Otolaryngology* 2006; 17:97–101.

Wormald PJ. Powered endoscopic dacryocystorhinostomy. *Otolaryngologic Clinics of North America* 2006; 39:539–549.

Book chapter

Douglas R, Wormald PJ. Otorhinolaryngology - head and neck surgery. In Whalan C, ed. *Assisting at Surgical Operations*. New York: Cambridge University Press, 2006. pp. 140–.

Publication on DVD

Athanasiadis T, Beule AG, Wormald PJ. Comparison of surgical bleeding scales. Adelaide 2005.

Psychiatry

University of Adelaide,
Discipline Of
Papers

Mc Farlane AC, Schrader GD, Bookless C, Browne D. Prevalence of victimization, posttraumatic stress disorder and violent behaviour in the seriously mentally ill. *Australian and New Zealand Journal of Psychiatry* 2006; 40, 1010-1015.

Potts N, Wilson D, Taylor A, Gill T, Schrader, Ruffin R. The prevalence of depression in the North West Adelaide Health Study. *Acta Neuropsychiatrica* 2006; 18, 266-267.

Schrader GD, Cheok F, Hordacre AL, Marker J. Predictors of depression 12 months after cardiac hospitalization: the Identifying Depression as a Comorbid Condition study. *Australian and New Zealand Journal of Psychiatry* 2006; 40, 1025-1030.

Renal Unit Papers

Campistol JM, Eris J, Oberbauer R, Friend P, Hutchinson B, Morales JM, Claesson K, Stallone G, Russ GR, Rostaining L, Kreis H, Burke JT, Brault Y, Scarola JA, Neylan JF. Sirolimus Therapy after Early Cyclosporine Withdrawal Reduces the Risk for Cancer in Adult Renal Transplantation. *J Am Soc Nephrol* 2006. Vol. 17; 581-589.

Gordois A, Nobes M, Toohey M, Russ GR. Cost effectiveness of sirolimus therapy with early cyclosporin therapy in Australia. *Clinical Transplant* 2006 March; Vol. 20:526-536.

Irving MJ, Craig JC, Gallagher M, McDonald SP, Polkinghorne KR, Walker RG, Roger SD. Implementing iron management clinical practice guidelines in patients with chronic kidney disease having dialysis. *MJA* 2006 September; Vol. 185; 310-314.

Leivestad T, Lokkegaard H, Billiow JM, Kramer R, Magaz A, Cleries M, Stewart JH, McCredie MRE, Williams SM, Fenton SS, Trpeski L, McDonald SP, Jager KJ, van Dijk PCW, Finne P, Schon S, Garcia-Blasco MJ, Ioannidis GA, Lim YN, Zahid I. Geographic, ethnic, age-related and temporal variation in the incidence of end-stage renal disease in Europe, Canada and the Asia-Pacific region, 1998-2002. *Nephrology Dialysis Transplant* 2006 April; 21: 2178-2183.

Lim WH, McDonald SP, Russ GR. Effect on graft and patient survival between shipped and locally transplanted well-matched cadaveric renal allografts in Australia over a 10-year period. *Nephrology* 2006 Feb; Vol. 11; 1:73-77.

Lim WH, Kireta S, Thomson AW, Russ GR, Coates PT. Renal transplantation reverses functional deficiencies in circulating dendritic cell subsets in chronic renal failure patients. *Transplantation* 2006 Jan 27; 81;2:160-8.

Lim WH, Kireta S, Russ GR, Coates PTH. Human plasmacytoid dendritic cells regulate immune responses to Epstein-Barr virus (EBV) infection and delay EBV-related mortality in humanized NODSCID mice. *Blood First Edition Paper* 2006 October; DOI 10.

Lim WH, Lim EM, McDonald SP. Lean body mass-adjusted Cockcroft and Gault formula improves the estimation of glomerular filtration rate in subjects with normal-range serum creatinine. *Nephrology* 2006 Jun; Vol. 11; 3: 250-256.

Lim WH, Russ GR, Coates PTH. Review of Epstein-Barr virus and post-transplant lymphoproliferative disorder post-solid organ transplantation. *Nephrology* 2006 Aug; Vol. 11; 4:355-366.

Marshall MR, Byrne BG, Kerr PG, McDonald SP. Associations of haemodialysis dose and session length with mortality risk in Australian and New Zealand patients. *Kidney Int* Apr 2006; 69;7:1229-36.

McDonald SP. Infections, Kidney and Cardiovascular Disease in Aboriginal Communities. *S.A. Public Health Bulletin* 2006; 5:12-15.

McDonald SP, Russ GR. Recurrence of IgA Nephropathy Among Renal Allograft Recipients From Living Donors is Greater Among Those With Zero HLA Mismatches. *Transplantation* 2006 September; Vol. 82. No: 6: 759-762.

Milton CA, Barbara J, Cooper J, Rao M, Russell C, Russ GR. The transmission of donor-derived malignant melanoma to a renal allograft recipient. *Clinical Transplant* 2006 February; Vol. 20; 547-550.

Mulgaonkar S, Tedesco H, Oppenheimer F, Walker R, Kunzendorf U, Russ GR, Knoflach A, Patel Y, Ferguson R. FTY720/ Cyclosporine Regimens in De Novo Renal Transplantation: A 1-Year Dose-Finding Study. *American Journal of Transplantation* 2006; Vol. 6; 1848-1857.

Newland A, Russ GR, Krishnan R. Natural killer cells prime the responsiveness of autologous CD4 T cells to CTLA4-Ig and interleukin-10 mediated inhibition in an allogeneic dendritic cell-mixed lymphocyte reaction. *Immunology* 2006 Jun; Vol. 118, 2:216-223.

Phillips PJ, Coates PTH. Neglected nephropathy. *Australian Family Physician*, 2006 June; Vol. 35; 398-402.

Prasad S, Humphreys I, Kireta S, Gilchrist RB, Bardy P, Russ GR, Coates PT. MHC Class II DRB genotyping is highly predictive of in-vitro alloreactivity in the common marmoset. *J Immunol Methods* 2006 Jul 31;314;1-2:153-63.

Rogers NM, Lawton PD, Jose MD. Kidney Transplant Outcomes in the Indigenous Population in the Northern Territory of Australia. *Transplantation* 2006 Oct; Vol. 82; No: 7: 882-886.

Stewart JH, McCredie MRE, Williams SM, Jager KJ, Trpeski L, McDonald SP. The Enigma of Hypertensive ESRD: Observations on Incidence and Trends in 18 European, Canadian, and Asia-Pacific Populations, 1998 to 2002. *American Journal of Kidney Diseases* 2006 August; Vol.48 2:183-191.

Tsopelas C, Chew G, Chew J, Coates PTH, Russ GR. The Distribution of Allogeneic In-dendritic Cells in Sheep. *ANZ Nuclear Medicine* 2006 Jun; 7-11.

Respiratory Medicine Unit Papers

Appleton, S. Pilotto, L. Smith, B. Muhammad, J.. Anticholinergic bronchodilators versus beta2-adrenoceptor agonists for stable chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 1, 2006.

Appleton S, Jones T, Poole P, Pilotto L, Adams R, Lasserson TJ, Smith B, Muhammad J. Ipratropium bromide versus short acting beta-2 agonists for stable chronic obstructive pulmonary disease. [Review] Source: *Cochrane Database of Systematic Reviews*(2): CD001387, 2006.

Appleton S, Poole P, Smith B, Veale A, Lasserson T, Chan M, A. Long-acting beta2-agonists for chronic obstructive pulmonary disease patients with poorly reversible airflow limitation. [Systematic Review-updated 2006] *Cochrane Database of Systematic Reviews* 2006; 3: CD001104, PMID: 12137617.

Chai CL, Smith BJ, Pathinathan A. Interfaces for the treatment of obstructive sleep apnoea. *Cochrane Database of Systematic Reviews*, 4, 2006.

Evans S, Berry J, Smith B, Esterman A, O'Shaughnessy J, Selim P, De Wit M. Attitudes and barriers to incident reporting: a collaborative hospital study., *Quality and Safety in Health Care* 2006;15:39-43.

Evans S, Berry J, Smith B, Esterman A. Consumer perception of safety in hospitals. *BMC Journal of Public Health* 2006 Feb; 6:41.

Giles TL. Lasserson TJ. Smith BJ. White J. Wright J. Cates CJ. Continuous positive airway pressure for obstructive sleep apnoea in adults. 2006 – 2nd edition – *Cochrane Database Syst Review, Update Software* (2) CD 001106; PMID 12076402.

Leong T, Smith B, Hepworth R, Gibson P, Hensley M, Lasserson T. Lung volume reduction surgery for chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews*, 4, 2006

Nitschke M, Pilotto L, Smith B, Ruffin R, Martin A, Pisaniello D, Attewell R, Hiller J. A cohort study of indoor nitrogen dioxide and house dust mite exposure in asthmatic children. *Journal of Occupational and Environmental Medicine*. 2006 May;48(5):462-9.

Smith B. Commentary in 'Evidence Based Medicine': Esomeprazole did not universally improve asthma outcomes in patients with moderate to severe stable asthma. *Evid Based Med*. 2006 Dec;11(6):175.

Smith B. Chronic obstructive pulmonary disease management trials, including co-ordinated care, outreach nursing, and other attempted care innovations. *Respiratory Medicine: COPD Update*, 2006, 2: 60-63.

Smith, B. Appleton, S. Adams, R. Southcott, A. Ruffin, R. Home care by outreach nursing for chronic obstructive pulmonary disease. [Systematic Review-updated] *Cochrane Database of Systematic Reviews*. 1, 2006.

Rheumatology Unit Papers

Downie-Doyle S, Bayat N, Lester S, Rischmueller M. CTLA-4 haplotypes influence susceptibility and extraglandular manifestations in primary Sjogren's syndrome. *Arthritis Rheum* 2006; 54:2434-40.

Hill CL, Gill T, Daly A, d'Espaignet E, dal Grande E, Adams RJ, Taylor A. Psychological factors and quality of life in arthritis: a population-based study. *Clin Rheumatol* 2006 Oct 18; [Epub ahead of print].

Lu T, Hill CL. Managing patients taking tumour necrosis factor inhibitors. (Invited Review.) *Australian Prescriber* 2006; 29:67-70.

Lu TY, Pink J, Chin M, Whitten L, Hill CL, Adams RJ, Marchant Y, Gibb C. A champion-driven pathway towards quality improvement in the medical management of osteoporotic fractures. *MJA* 2006; 185:341-2.

Plint AC, Moher D, Morrison A, Schulz K, Altman DG, Hill CL, Gaboury I. Does the CONSORT checklist improve the quality of reports of randomized controlled trials: A systematic review *MJA* 2006; 185:263-7.

Pontifex E, Hill CL, Roberts-Thomson PJ (2006). Risk factors for lung cancer in patients with scleroderma: A nested case-control study *Annals Rheum Dis* Sept 19, 2006 Epub.

Tsopelas C, Penglis S, Miller D, Rischmueller M, Bartholomeusz FDL. Evaluation of 99mTc-immunoglobulins for imaging infection in the rat. *J Label Compd Radiopharm* 2006; 49:915-28.

Abstracts

Cai, F, Lester S, Lu T, Keen H, Rischmueller M. Autonomic dysfunction in primary Sjogren's syndrome: a controlled study. *Arthritis Rheum* 54(9) supplement, S252.

Cai F, Lester S, Lu T, Keen H, Rischmueller M. Autonomic dysfunction in primary Sjogren's syndrome: a controlled study. *APLAR J Rheum* 2006; 9 (Suppl 1): A232.

Cai FZ, Ayres O, Lester S, Hill CL, Cleland LG, Proudman SM. Predictors of radiographic progression in early rheumatoid arthritis. *Internal Med J* 2006; 36(Suppl. 2):A48.

Cai F, Lester S, Lu T, Keen H, Rischmueller M. Autonomic dysfunction in primary Sjogren's syndrome: a controlled study. 9th International Symposium on Sjogren's Syndrome, Washington DC, USA, April 2006.

Downie-Doyle S, Bayat N, Rischmueller M, Lester S. Influence of CTLA-4 haplotypes upon susceptibility and extraglandular manifestations in Australian Patients with primary Sjogren's syndrome. 9th International Symposium on Sjogren's Syndrome, Washington DC, USA, April 2006.

Hill CL, Osborne R, Buchbinder R. Quality of Reporting of Randomized Clinical Trials (RCTs) in Abstracts of the 2005 Annual Scientific Meeting of American College of Rheumatology. *Arthritis Rheum* 2006; 54(Suppl):S534.

Hill CL, Gill T, Taylor A. Prevalence of foot pain in a population-based cohort study. *Arthritis Rheum* 2006; 54(Suppl): S322.

Hlavac M, Lester S, McEvoy D, Rischmueller M. The prevalence of obstructive sleep apnoea among women with primary Sjogren's syndrome. *APLAR J Rheum* 2006; 9 (Suppl 1): A232.

Hlavac MC, Lester S, Rischmueller M, McEvoy RD. High prevalence of obstructive sleep apnoea among women with primary Sjogren's syndrome. *Int Med J* 2006; 36 (Suppl):A25.

James H, Gillis D, Hissaria P, Lester S, Somogyi A, Cleland L, Proudman S. Polymorphisms in the folate pathway predict response to methotrexate. *Arthritis Rheum* 54 (Suppl): S129.

Kwiatek R, Barnden L, Behin-Ain S, Kasza J, Tedman R, Danda D, Pile K. Right orbitofrontal and hippocampal structural MRI changes in fibromyalgia. *Int Med J* 2006; 36(Suppl. 2):A47; 35(Suppl 2):A93.

Kwiatek R, Barnden L, Behin-Ain S, Danda D, Pile K. Optimised SPECT

analysis of regional cerebral blood flow in fibromyalgia. *Int Med J* 2006; 36(Suppl. 2):A47.

Limaye VS, Hahn C, Xia P, Pitson S, Vadas M, Gamble J. High intracellular sphingosine kinase activity in endothelial cells inhibits angiogenesis. *Int Med J* 2006; 36(Suppl. 2):A30.

Limaye VS, Blumbergs P, Hakendorf P, Stevanovic V, Highton J, Roberts-Thomson P. The Epidemiology of Dermatomyositis in South Australia. *Int Med J* 2006; 36(Suppl. 2):A31.

Limaye VS, Blumbergs P, Roberts Thomson P. The Clinical Features of Dermatomyositis in a South Australian Population. *Int Med J* 2006;36(Suppl. 2):A31.

Lu T, Pink J, Chin M, Whitten L, Hill CL, Adams RJ, Marchant Y, Gibb C., A champion-driven pathway towards quality improvement in the medical management of osteoporotic fractures. *Int Med J* 2006; 36(Suppl. 2):A33.

Munafo A, Rossier C, Peter N, Nestorov I, Dimic A, Mircetic V, Rischmueller M, Nasanov E, Shmidt E, Emery P, Tak P. TACI-Ig in patients with rheumatoid arthritis (RA): an exploratory, multi-centre, double-blind, placebo-controlled, dose-escalating, single and repeat dose phase IB study. *Ann Rheum Dis* 2006; 65(Suppl II):108.

Ratnavadivel R, Lester S, Rischmueller M, McEvoy RD. Predictors of excessive daytime sleepiness in patients referred for investigation of obstructive sleep apnoea. *Int Med J* 2006; 36 (Suppl):A18.

Rischmueller M, Downie-Doyle S, Bayat N, Lester S. Influence of CTLA-4 haplotypes upon susceptibility and extraglandular manifestations in Australian patients with primary Sjoren's syndrome. *Ann Rheum Dis* 2006; 65(Suppl II):286.

Tak P, Thurlings R, Dimic A, Mircetic V, Rischmueller M, Nasanov E, Shmidt E, Emery P, Rossier C, Nesterov I, Hill J, Munafo A. A phase Ib study to investigate Atacicepti (TACI-Ig) in patients with rheumatoid arthritis. Late breaking abstract at Washington, November 2006. Abstract L36 *Arthritis Rheum* 54(9) supplement.

Surgery

University of Adelaide,
Discipline of
Papers

Abraham NS, Hewett P, Young JM, Solomon MJ. Non-entry of eligible patients into the Australasian laparoscopic colon cancer study. *ANZ Journal of Surgery* 2006; 76:825–829.

Adam D, Fitridge RA, Raptis S. Late intervention for aortic graft-related events and new aortoiliac disease after open abdominal aortic aneurysm repair in an Australian population. *Journal of Vascular Surgery* 2006; 43:701–705.

Adam DJ, Raptis S, Fitridge RA. Trends in the presentation and surgical management of the acute diabetic foot. *European Journal of Endovascular Surgery* 2006; 31(2):151–156.

Adam DJ, Fitridge RA, Berce M, Hartley DE, Anderson JL. Salvage of failed prior endovascular abdominal aortic aneurysm repair with fenestrated endovascular stent grafts. *Journal of Vascular Surgery* 2006; 44(6):1341–1344.

Bhatt DL, Fox KAA, Hacke Wea, for the CHARISMA Investigators. Clopidogrel and Aspirin versus Aspirin alone for the prevention of atherothrombotic events. *New England Journal of Medicine* 2006; 354(16):1706–1717.

Boden RA, Clark MA, Neuhaus SJ, A'Hern JR, Thomas JM, Hayes AJ. Surgical management of soft tissue sarcoma in patients over 80 years. *European Journal of Surgical Oncology* 2006; 32(10):1154–1158.

Boult M, Babidge W, Maddern G, Barnes M, Fitridge R., on behalf of the Audit Reference Group. Predictors of success following endovascular aneurysm repair: mid-term results. *European Journal of Endovascular Surgery* 2006; 31:123–129.

Bridgewater FHG, Aspinall ET, Booth JPM, Capps RA, Grantham HJM, Pearce AP, Ritchie BK. Team Echo: Observations and lessons learned in the recovery phase of the 2004 Asian tsunami. *Prehospital and Disaster Medicine* 2006; 21(1):s20–s25.

Campbell DG, Duncan WW, Ashworth M, Mintz A, Stirling J, Wakefield L, Stevenson TM. Patellar resurfacing in total knee replacement. *Journal of Bone and Joint Surgery British* 2006; 88(6):734–739.

Chetter IC, Mylankal KJ, Hughes H, Fitridge R. Randomized clinical trial comparing multiple stab incision phlebectomy and transilluminated powered phlebectomy for varicose veins. *British Journal of Surgery* 2006; 93:169–174.

Cowin AJ, Hatzirodos N, Rigden J, Fitridge, R; Belford, DA. Etanercept decreases tumor necrosis factor-alpha activity in chronic wound fluid. *Wound Repair and Regeneration* 2006; 14(4):421–426.

Cuncins-Hearn A, Boult M, Babidge W, Zorbas H, Villaneuva E, Evans A, Oliver D, Kollias J, Reeve T, Maddern G. The National Breast Cancer Audit: Overview of invasive breast cancer management. *ANZ Journal of Surgery* 2006; 76:745–750.

Hayes AJ, Neuhaus SJ, Clark MA, Thomas JM. Isolated limb perfusion with melphalan and tumor necrosis factor α for advanced melanoma and soft-tissue sarcoma. *Annals of Surgery Oncology* 2006.

Lloyd JM, Mclver CM, Stephenson S-A, Hewett PJ, Rieger N, Hardingham JE. Identification of early-stage colorectal cancer patients at risk of relapse post-resection by immunobead reverse transcription-PCR analysis of peritoneal lavage fluid for malignant cells. *Clinical Cancer Research* 2006; 12(2):417–423.

Maddern GJ, Middleton PF, Tooher R, Babidge WJ. Evaluating new surgical techniques in Australia: the Australian Safety and Efficacy Register of New Interventional Procedures – Surgical experience. *Surgical Clinics of North America* 2006; 86(1):115–128. Metcalfe MS, Mullin EJ, Maddern GJ. Relaxation of the criteria for day surgery laparoscopic cholecystectomy. *ANZ Journal of Surgery* 2006; 76:142–144.

Metcalfe MS, Mullin EJ, Maddern G. Hepatectomy for metastatic noncolorectal gastrointestinal, breast and testicular tumours. *ANZ Journal of Surgery* 2006; 76:246–250.

Middleton PF, Duffield M, Lynch SV, Padbury TRA, House T, Stanton P, Veran D, Maddern G. Living donor liver transplantation – adult donor outcomes: a systematic review. *Liver Transplantation* 2006; 12:24–30.

Milton CA, Barbara J, Cooper J, Rao M, Russell C, Russ G. The transmission of donor-derived malignant melanoma to a renal allograft recipient. *Clinical Transplantation* 2006; 20(5):547–550.

Neuhaus S, Sharwood PF, Rosenfeld JV. Terrorism and blast explosions: lessons for the Australian surgical community. *ANZ Journal of Surgery* 2006; 76:637–644.

Neuhaus S, Rosenfeld JV. Surgical audit on military operations: an evolving necessity. *ADF Health* 2006; 7:29–32.

Ng WT, Goggin M. Awareness of and compliance with recommended dietary supplement among age-related macular degeneration patients. *Clinical and Experimental Ophthalmology* 2006; 34(1):9–14.

Patterson I, Wong TE. Quilting and chloromycetin ointment: an easier way to manage full-thickness skin grafts. *Plastic and Reconstructive Surgery* 2006; 118(7):1551–1556.

Peter J, Piantadosi J, Piantadosi C, Cooper P, Gehling N, Kaufmann C, Goggin M. Use of real-time telemedicine in the detection of diabetic macular oedema: a pilot study. *Clinical and Experimental Ophthalmology* 2006; 34:312–316.

Pham CT, Middleton PF, Maddern GJ. The safety and efficacy of topical negative pressure in non-healing wounds: a systematic review. *Journal of Wound Care* 2006; 15:240–250.

Sutherland LM, Williams JAR, Padbury RTA, Gotley DC, Stokes B, Maddern GJ. Radiofrequency ablation of liver tumours: a systematic review. *Archives of Surgery* 2006; 141:181–190.

Sutherland LM, Middleton PF, Anthony A, Hamdorf J, Cregan P, Scott D, Maddern GJ. *Surgical simulation. A systematic review. Annals of Surgery* 2006; 243(2):291–300.

Tooher R, Swindle P, Woo H, Miller J, Maddern G. Laparoscopic radical prosta-

tectomy for localized prostate cancer: a systematic review of comparative studies. *Journal of Urology* 2006; 175:2011–2017.

Varelias A, Cowin AJ, Adams D, Harries RHC, Cooter RD, Belford DA, Fitridge RA, Rayner TE. Mitogenic bovine whey extract modulates matrix metalloproteinase-2, -9, and tissue inhibitor of matrix metalloproteinase-2 levels in chronic leg ulcers. *Wound Repair and Regeneration* 2006; 14:28–37.

Weng TN, Goggin M. Awareness of and compliance with recommended dietary supplement among age-related macular degeneration patients. *Clinical and Experimental Ophthalmology* 2006; 34:9–14.

Zhou FH, Foster BK, Zhou XF, Cowin AJ, Xian CJ. TNF-alpha mediates p38 MAP kinase activation and negatively regulates bone formation at the injured growth plate in rats. *Journal of Bone and Mineral Research* 2006; 21(7):1075–88.

Books and book chapters

Bruening M. Surgery in difficult circumstances: (1) Rural hospitals. In Whalan C, ed. *Assisting at Surgical Operations*. New York: Cambridge University Press, 2006. pp. 159–160.

Fraenkel G. Ophthalmic surgery. In Whalan C, ed. *Assisting at Surgical Operations*. New York: Cambridge University Press, 2006. pp. 125–128.

Jamieson G, Maddern G. Inguinal and femoral hernia operations, open and laparoscopic approaches: the anatomy of the inguinal and femoral regions. In Jamieson GG, ed. *The Anatomy of General Surgical Operations*, 2nd edition: Churchill Livingstone, 2006. pp. 81–86.

Jamieson G, Launois B. Liver resections and liver transplantation: the anatomy of the liver and associated structures. In Jamieson G, ed. *The Anatomy of General Surgical Operations*: Churchill Livingstone, 2006. pp. 8–23.

Jamieson G, Anvari M, Rieger N. Colectomy open and laparoscopic approaches; colonic conduits: the anatomy of the colon. In Jamieson G, ed. *The Anatomy of General Surgical Operations*, 2nd edition: Churchill Livingstone, 2006. pp. 63–71.

Jamieson G, Rieger N. Surgical procedures of the anus: the anatomy of the anal canal and associated structures. In Jamieson G, ed. *The Anatomy of General Surgical Operations*, 2nd edition: Churchill Livingstone, 2006. pp. 77–80.

Jamieson G, Fitridge R. Operations involving the thoracic aorta and its branches: the anatomy of the thoracic aorta. In Jamieson G, ed. *The Anatomy of General Surgical Operations*, 2nd edition: Churchill Livingstone, 2006. pp. 171–173.

Jamieson G, Fitridge R. Carotid endarterectomy: the anatomy of the carotid artery and related structures. In Jamieson G, ed. *The Anatomy of General Surgical Operations*, 2nd edition: Churchill Livingstone, 2006. pp. 174–176.

Jamieson G, Fitridge R. Operations on arteries of the upper limb: the anatomy of the arteries of the arm. In Jamieson G, ed. *The Anatomy of General Surgical Operations*, 2nd edition: Churchill Livingstone, 2006. pp. 177–179.

Jamieson G, Fitridge R. Operations involving veins of the upper and lower limbs: the anatomy of the superficial and deep veins of the upper and lower limbs. In Jamieson G, ed. *The Anatomy of General Surgical Operations*, 2nd edition: Churchill Livingstone, 2006. pp. 201–205.

Launois B, Maddern GJ. Abdominal and right thoracic subtotal esophagectomy. In Kaiser LR, Jamieson GG, eds. *Operative Thoracic Surgery*. London: Hodder Arnold, 2006. pp. 367–377.

Maddern GJ. Foreword. In Whalan C, ed. *Assisting at Surgical Operations*: Cambridge University Press, 2006. pp. ix–x.

Invited Presentations at International and National Meetings

Conference Title And Date	Title Of Talk/Poster	Name
CARDIOLOGY UNIT		
Basil Hetzel Institute for Medical Research Seminar, The Queen Elizabeth Hospital, Adelaide, November 2006	Tissue culture model of Aortic Stenosis	K Mishra
	Polycystic Ovary Syndrome and Cardiovascular Risk	A Chan
Heart Foundation Conference and Scientific Meeting, Sydney, March 2006	The Effect of Pravastatin on Phenylephrine Constrictor Responses in Rat Mesenteric Microvessels and its modulation by Endothelial Denudation	N Ghaffari, C Ball, J Kennedy, JF Beltrame
	Endothelial and Platelet Function Studies in the Coronary Slow Flow Phenomenon	V Kopetz, SR Willoughby, S Leslie, JF Beltrame
	Health-related Quality of Life Amongst Patients with an Acute as Compared with a Chronic Coronary Angina Syndrome	R Tavella, N Cutri, CA Green, R Adams, JF Beltrame
	Mechanism and New Therapies of Large and Small Coronary Blood Vessel Spasm	JF Beltrame
	Is Extent of Angiographic Coronary Artery Disease Related to Health-Related Quality of Life Indices?	N Cutri, R Tavella, CA Green, JF Beltrame
54th Cardiac Society of Australia & New Zealand, Canberra, August 2006	The Coronary Slow Flow Phenomenon is Associated with Endothelial and Platelet Dysfunction. Heart, Lung Circ, 15(Suppl 1):S16.	V Kopetz, S Willoughby, S Leslie, JF Beltrame
	Mechanism of Inhibition of Microvascular Constrictor Responses by Pravastatin. Heart, Lung Circ, 15(Suppl 1):S17.	N Ghaffari, C Ball, J Kennedy, JF Beltrame
International Society for Heart Research Annual Scientific Meeting, Canberra, August 2006	The Effect of Efonidipine Hydrochloride on Human Microvascular Constrictor Responses. Heart, Lung Circ, 15(Suppl 1):S186.	C Ball, D Saint, JF Beltrame
World Congress of Cardiology, Barcelona, September 2006	Endothelial and Platelet Dysfunction in the Coronary Slow Flow Phenomenon	V Kopetz, S Willoughby, S Leslie, JF Beltrame
World Congress of Cardiology Barcelona, September 2006, Abstract 3461.	Nitric oxide donors and PGEI inhibit calcification of aortic valve interstitial cells	JA Kennedy, X Hua, AC Rosenkranz, GA Murphy, K Mishra, JD Horowitz
World Congress of Cardiology Barcelona, September 2006, Abstract 3462.	Pivotal role of Rho kinase activation rather than oxidative stress in calcification of aortic valve interstitial cells.	AC Rosenkranz, JA Kennedy, GA Murphy, K Mishra, JD Horowitz

Conference Title And Date	Title Of Talk/poster	Name
CARDIOLOGY UNIT (Continued)		
World Congress of Cardiology Barcelona, September 2006, Abstract P823.	Effects of vitamin D2 supplementation on aortic valvular and vascular function in a rabbit model of aortic stenosis.	DT Ngo, RD Wuttke, I Stafford, AC Rosenkranz, AK Nightingale, YY Chirkov, JA Kennedy, JD Horowitz
World Congress of Cardiology Barcelona, September 2006, Abstract 3463	Vitamin D2 supplementation induces aortic stenosis in rabbits.	DT Ngo, RD Wuttke, H Weedon, AK Nightingale, JA Kennedy, JD Horowitz
54th Cardiac Society of Australia and New Zealand. Canberra, August 2006.	Dissociation of ALDH activity from GTN effect, bioconversion, and tolerance in humans	AC Philpott, PR Sage, I Stafford, G Murphy, I De La Lande, R Stuklis, J Edwards, JD Horowitz
CLINICAL PHARMACOLOGY UNIT		
International Association of Therapeutic Drug Monitoring and Clinical Toxicology Symposium, Kuala Lumpur, Bangkok & Taipei, July 2006	Are all immunosuppressant drug assays equal? Can the pathology laboratory optimise support for clinicians?	R Morris
TQEH Medical Round, October 2006	Analytical functions-Clinical messages	R Morris
Rotary Club of West Lakes, January 2006	Medical research makes a difference	R Morris
Rotary Club of Regency Park, November 2006	Medical research makes a difference	R Morris
Applied Biosystems Webinar for the Asia-Pacific Region, June 2006	Application of tandem mass spectrometry for therapeutic drug monitoring of immunosuppressants	B Sallustio
Gynaecology, TQEH Division of Fertility Society Australia, Sydney, 2006	A RCT investigating the effect of a novel antioxidant treatment on IVF-ICSI pregnancy outcome.	Tremellen KP, Miari G, Froiland D, Thompson J.
Australian Surgical Oncology Society annual meeting, 2006	Cytoreductive surgery in ovarian cancer.	Miller J
Australian Association of Neurologists Annual Scientific meeting, 2006	Post-partum cerebral angiopathy with intracranial haemorrhage.	Kleinig T, Graf S, Singla A, Scroop R, Thompson P, Kimber T.
ACOG, May, 2006	Tissue encapsulation of the proximal Essure micro-insert from the uterine cavity following hysteroscopic sterilization.	Munday D
RANZCOG annual scientific meeting, Perth, 2006	AMH as a predictor of pregnancy outcome during IVF treatment.	Lekamge D
The AGES/APAGE meeting, Sydney, September 2006	A randomised trial comparing Mirena and MEA in the treatment of heavy menstrual bleeding.	Cook J, Behnia-Willison F, Szremska A, Rosenthal E, Lam C, Seman E, O'Shea R.
The AGES Annual Scientific meeting, Adelaide, May 2006.	Site-specific pelvic floor repair: outcomes at 2 years.	Seman E, Behnia-Willison F, Cook J, Ayres H, Lam C.
The 35th annual meeting of the American Association of Gynaecologic Laparoscopists, Las Vegas, November 6-9, 2006	Pelvic organ prolapse posterior repair laparoscopic suprallevator repair (Lam procedure).	O'Shea RT, Seman EI, Cook JR, Behnia-Willison F.

Conference Title And Date	Title Of Talk/Poster	Name
CLINICAL PHARMACOLOGY UNIT (Continued)		
The 35th annual meeting of the American Association of Gynaecologic Laparoscopists, Las Vegas, November 6-9, 2006	Laparoscopic paravaginal repair for anterior vaginal prolapse.	O'Shea RT, Seman EI, Cook JR, Behnia-Willison F.
The AGES Pelvic Floor Symposium & Workshop VI, Melbourne, October, 2005	Outcomes of prolapse surgery – A quality of life study	Cook J
The Australian Gynaecological Endoscopy Society Annual Scientific meeting, Perth, May 2005	Intravaginal Slingplasty versus Lapatoscopic Birch Colposuspension, a randomised controlled trial.	Cook J, Behnia-Willison F, Seman EI.
HAEMATOLOGY & MEDICAL ONCOLOGY Combined Department of		
Australian Midwifery and Child Birth Education meeting, Plenary Lecture, Adelaide, September 2006	The therapeutic potential of cord blood stem cells	R D'Andrea
Amgen Clinical Haematology Symposium Melbourne, February 2006	Haematology: Today, tomorrow and beyond	U Hahn
MEDICINE University Of Adelaide, Discipline Of		
International Conference of The American Thoracic Society, San Diego, USA, May 2006	Zinc supplementation decreases eosinophilia in mice with allergic inflammation: an effect mediated at the systemic, rather than local level	C Lang et al
	Association of asthma, cholesterol and statins in a population sample	R Adams et al
	Asthma is associated with reduced sputum labile and total zinc measurements	L Jayaram et al
Thoracic Society of Australia and New Zealand & Australian and New Zealand Society of Respiratory Science, Annual Scientific Meetings, Canberra, March 2006	Zinc supplementation decreases eosinophilia in mice with allergic inflammation	C Lang et al
	Central obesity is associated with non-atopic but not atopic asthma: an epidemiological study	S Appleton et al
	Targeting asthma control: how effective are we?	R Adams et al
16th European Respiratory Society Annual Congress, Munich, Germany, September 2006	Changes in asthma and obesity over a decade. How do they relate to each other?	D Wilson et al
	Asthma severity is not modified by central obesity	S Appleton et al
	South Australian asthma surveillance – trends to 2005	R Ruffin et al
	COPD – future prospects for women	Wilson D et al
	Gender differences in inequalities in asthma: The North West Adelaide Health study	Chittleborough C et al

Conference Title And Date	Title Of Talk/Poster	Name
MEDICINE University Of Adelaide, Discipline Of (Continued)		
The International Conference on Nutrigenomics & Gut Health, from science to a marketable food product, Takapuna, Auckland, New Zealand, April-May 2006	Zinc fluxes and zinc transporter genes in chronic disease	C Murgia et al
Zn signals, MonteOliveto Maggioro Siena, Italy, September 2006	Zinc fluxes and zinc transporters in the lung and in a mouse model of Asthma	C Murgia et al
11th Congress of the Asian Pacific Society of Respiratory (APSR), Kyoto, Japan, November 2006	Asthma Population Surveillance Impact of incorrect identification of medications	R Ruffin et al
NEUROLOGY UNIT		
Australasian Consortium of Centres for Clinical Cognitive Research (AC4R) Annual Conference, Sydney, November 2006	Update of Dementia Trials in Australia	K Boundy
6th International Congress of Neuropsychiatry Symposium, Sydney, September 2006	Old Age Psychiatry: The Treatment of Alzheimer's Disease (Hot Topics) Non Cholinesterase Inhibitors Therapy: Treatment of Alzheimer's Disease	K Boundy
South Australian Health Department Office of the Ageing Plan Initiatives Meeting, Adelaide, May 2006	Specialist Memory Clinics – An Australian Perspective	JA Deimel
Alzheimer's Association, Dementia Seminar Series, Adelaide, October 2006	Memory Units – Models of Care	JA Deimel
Pfizer PRISM Education workshop for Internal Medicine, April 2006	Invited lecture: Stem Cells and the Brain	SA Koblar
Physical and Neurological Council for SA, May 2006	Invited lecture: Stem Cells and the Promise for Neuroscience	SA Koblar
NeuroEvent, Melbourne, August 2006	Invited plenary lecture: Genetics in Stroke	SA Koblar
University of Adelaide, Faculty of Health Sciences, Adelaide, August 2006	Stem Cell Workshop (Co-organiser)	SA Koblar
Queensland University Society for Developmental Biology, Brisbane, September 2006	Invited seminar – Nxf, a novel bHLH-PAS transcription factor – role in neural development and disease	SA Koblar
Stroke Society of Australasia Annual Scientific Meeting, Adelaide, October 2006	Stem cell treatment – hype or hope?	SA Koblar

Conference Title And Date	Title Of Talk/Poster	Name
NUROLOGY UNIT (Continued)		
Neurological Diseases Public Forum, FMC, Adelaide, October 2006	Stem Cell Therapy; where are we in 2006?	SA Koblar
Hampstead Rehabilitation Hospital, Adelaide, November 2006	Invited Seminar – Stem cells – future therapy for stroke	SA Koblar
University of Adelaide Workshop, Adelaide, December 2006	Neural Stem Cells and Frontier Technologies for Brain Repair (Co-organiser and Chairperson)	SA Koblar
Rotary Club of Largs Bay, Adelaide, February 2006	Stroke Research	AG Milton
NUCLEAR MEDICINE UNIT		
Annual Scientific Meeting of the Australian and New Zealand Society of Nuclear Medicine, Perth, April 2006	Does the spatial response to scatter differ between fanbeam and parallel hole collimators? A MonteCarlo investigation	LR Barnden
	Assessment of patient images as input models in MonteCarlo simulations	LR Barnden, B Hutton
	Auto-detection of the body edge in low count level tomographic images	LR Barnden, B Hutton
	A figure-of-merit for brain SPECT normal databases and evaluation the effect of scatter subtraction, reconstruction algorithm and global scaling options in voxel-based analysis	LR Barnden, S Unger
	The application of SPECT/CT image fusion in evaluating abnormal focal uptake in the pelvis on whole body I-131 scan following ablative therapy – a case study	T Piscitelli
Society of Nuclear Medicine, San Diego USA, 2006	Brain perfusion in chronic fatigue syndrome using optimised brain SPECT	LR Barnden, R Kwiatek, R Casse, R Burnet, P delFante, S Unger
	A figure-of-merit for brain SPECT normal databases and its application to assess the effects of different SPECT processing options	LR Barnden, S Unger
	Preliminary assessment of the use of patient images as input models in MonteCarlo simulations	LR Barnden, B Hutton
Australian Rheumatology Association, Sydney, 2006	Right Orbitofrontal and Hippocampal Structural MRI Changes in Fibromyalgia	R Kwiatek, LR Barnden, S Behin-Ain, J Kasza, R Tedman D Danda et al
	Optimised SPECT Analysis of Regional Cerebral Blood Flow in Fibromyalgia	R Kwiatek, LR Barnden, S Behin-Ain, D Danda, K Pile

Conference Title And Date	Title Of Talk/Poster	Name
NURSING		
SA Perioperative Nurses Association, Country Study Weekend, Victor Harbour, June 2006	“Career Pathway for the Enrolled Nurse in the Peri-operative Setting”	K. Simunov
	International Nursing Recruitment: Where Does South Australia Sit?	K Daniels
	Nursing Career Structure: What is the Nurses Board Up To?	P Teekens
Australian Nurse Teachers Association, Canberra, September 2006	Frontier Classrooms	K Simunov
Second International ANZO-NA Conference, Canberra, October 2006	A Kernel on the Cob: TQEH Extended Clexane Protocol	L Thomas
Australian Wound Management Association 6th National Conference, Canberra, March 2006	Which Bank? The Dressing Bank (poster)	W McInnes
Renal Society of Australia, Melbourne, August 2006 and Transplant Nurses Association, Adelaide, October 2006	E-Learning for Renal Education: CNAHS Learnscope project 2005 – Turning the northern lights On(Line) (poster)	C Wilden, D Ind
TQEH Research Day 2006 Nursing & Allied Health Section, Adelaide, October 2006	Which Bank? The Dressing Bank	W McInnes
	E-Learning for Renal Education	C Wilden
	Turning Around and Over: Implementation of a Pressure Ulcer Prevention Framework for TQEH	K Simunov, L Thomas
Whitepaper – Published by 3M Australia – November 2006	New Absorbent Acrylic Wound Technology – A Clear Solution	W. McInnes
Department of Health – Health Promotion Unit Seminar Day, Diabetes Across the Continuum, Adelaide, May 2006	Towards Quality Rural Diabetes Care	J Giles, A Ackland
ADEA Annual Scientific Meeting, Gold Coast, August 2006	Aboriginal Health – Translating understanding into capacity for best practice	A Ackland, J Giles, P Phillips
	Developing health professional skills in group education	J Giles, P Hill, P Phillips
	The ADEA mentoring Initiative: Supporting a culture of collaboration	H Phelan, J Alford, S Cornelius, J Giles
South Pacific Nurses Forum, Samoa, September 2006	Partnerships & Collegiality in Diabetes	J Giles, S Nelesone
Diabetes in Indigenous Health – International Diabetes Federation, Melbourne, November 2006	Is Education Enough?	J Giles, P Phillips
International Diabetes Federation Congress, Cape Town, Sth Africa, December 2006	Diabetes education and support across the South Pacific	J Giles, P Phillips

Conference Title And Date	Title Of Talk/Poster	Name
OBSTETRICS & GYNAECOLOGY University Of Adelaide, Discipline of		
Annual Scientific Meeting of RANZCOG, Perth, WA, October 2006	Reproductive problems associated with obesity Fertility after 40	R Norman
The Fertility Society of Australia 2006 Conference, Sydney, October 2006	Mono-follicular Ovulation	R Norman
10th International Congress on Obesity, Sydney, September 2006	Impact of obesity on reproduction	R Norman
Human Reproductive Health Through the Ages Conference, Adelaide 2006	Chair the Plenary Session on Advances in Reproductive Technology	R Norman
Sydney Menopause Centre, Royal Hospital for Women's Annual Hormone and Women's Health Update and Education Day, Sydney, February 2006	PCOS – Management in General Practice	R Norman
Controversies in Reproductive Medicine Conference, Mumbai, India, September 2006	Dr Dossibai JR Dadbhoy Silver Jubilee Oration “The Reproductive Revolution – how it will change our World”	R Norman
SSR Annual meeting, Omaha, Nebraska USA., 2006	Nutrition, Obesity and Human Reproduction	R Norman
ENDO 2006 88th Annual Meeting, Boston, USA, June 2006	Fertility and Polycystic Ovary Syndrome	R Norman
Androgen Excess Society Annual Meeting in Boston, USA June 2006. Vice President.		R Norman
ESHRE meeting, Prague, June 2006. Speaker, educational symposium	Fertility in obese women	R Norman
Asia Fertility Expert Meeting, Ho Chi Minh City, Vietnam, April 2006	PCOS and Dietary Intervention	R Norman
SIAM Annual Meeting, Boston, Massachusetts, USA 2006	Determining environmental conditions for successful in-vitro maturation of mammalian oocytes	YM Stokes, A Clarl, S Cox, M Lane, JG Thompson
IETS, Kyoto, Japan, 2006	Alternatives to culture in the petridish Embryo culture and long term consequences	JG Thompson
Ruminant Reproduction Symposium, Wellington, New Zealand (Plenary) 2006	Metabolism of the bovine Cumulus Oocyte Complex and influence on subsequent developmental competence”	JG Thompson
“Human Reproductive Health Through the Ages: Womb to tomb”, Adelaide, SA, 2006	Is fetal development altered by environmental influences during oocyte maturation	JG Thompson
“Downunder Embryo” – A Symposium of the cell biology of the early embryo, Gold Coast, QLD, 2006.	Oocyte maturation and effects on subsequent development	JG Thompson

Conference Title And Date	Title Of Talk/Poster	Name
OTOLARYNGOLOGY HEAD AND NECK SURGERY Department of		
Australasian Rhinologic Society, Barossa Valley, October 2006	The effect of plasminogen and tranexamic acid on wound healing using as invitro human nasal fibroblast model	AG Beule, T Athanasiadis, LW Tan W Hosemann, PJ Wormald
Australasian Rhinologic Society, Barossa Valley, October 2006	Haemostasis during sinus surgery	T Athanasiadis, AG Beule, PJ Wormald
Australasian Rhinologic Society, Barossa Valley, October 2006	Biofilms and the nose	A Psaltis
ASOHNS, Melbourne, March 2006	The effect of tranexamic acid on wound healing using an in vitro human nasal fibroblast model: interactions between plasminogen and MMP-9	AG Beule, K Ha, T Athanasiadis, LW Tan, W Hosemann, PJ Wormald
ASOHNS, Melbourne, March 2006	SMOT-20: Introduction of the German version and bi-national field test	AG Beule, E Steinmeier, TH Kohlmann, W Hosemann, PJ Wormald
ASOHNS, Melbourne, March 2006	Effects of topical antifibrinolytics on the surgical field in endoscopic sinus surgery	T Athanasiadis, AG Beule, PJ Wormald
Basil Hetzel Institute for Medical Research Seminar, The Queen Elizabeth Hospital, Adelaide, August 2006	Wound healing after sinus surgery: New insights based on clinical and experimental studies	AG Beule, T Athanasiadis
Basil Hetzel Institute for Medical Research Seminar, The Queen Elizabeth Hospital, Adelaide, August 2006	Bleeding and wound healing in endoscopic sinus surgery	AG Beule, T Athanasiadis
Basil Hetzel Institute for Medical Research Seminar, The Queen Elizabeth Hospital, Adelaide, August 2006	Biofilms in human sinusitis	K Ha, A Psaltis
American Rhinologic Society Annual Meeting, Toronto, September 2006	A sheep model for the study of biofilms in chronic rhinosinusitis	K Ha, A Psaltis, LW Tan, PJ Wormald
The Queen Elizabeth Hospital Research Day, Adelaide, October 2006	The effect of plasminogen and tranexamic acid on wound healing using an in vitro human nasal fibroblast model	AG Beule, T Athanasiadis, LW Tan, W Hosemann, PJ Wormald
The Queen Elizabeth Hospital Research Day, Adelaide, October 2006	Frontal ostium restenosis after the endoscopic modified Lothrop procedure	K Tran, AG Beule, J Field, D Singhal, PJ Wormald
ASOHNS State Section meeting, Adelaide, November 2006	The effect of topical antifibrinolytics on the surgical field in endoscopic sinus surgery	T Athanasiadis
Functional Endoscopic Sinus Surgery Course, Mumbai India, January 2006	Endoscopic dacryocystorhinostomy Modified endoscopic sinus surgery Revision endoscopic sinus surgery Endoscopic surgery of the sphenoid sinus Management of turbinate dysfunction Image guided sinoscopy Optic nerve decompression Orbital decompression Repair of cerebrospinal fluid leak Frontal drillout (Modified Lothrop Procedure)	PJ Wormald

Conference Title And Date	Title Of Talk/Poster	Name
OTOLARYNGOLOGY HEAD AND NECK SURGERY Department of (Continued)		
2006 Functional Endoscopic Sinus Surgery Course, The Prince of Wales Hospital, Hong Kong, February 2006	Anatomy and surgical approaches to the frontal sinus Cadaver dissection demonstration of basic & advanced techniques Endoscopic DCR Endoscopic resection of malignant sinonasal tumours Endoscopic intracranial resection of tumors Endoscopic sphenopalatine artery ligation Management of fungal sinusitis Panel discussion on the difficult frontal sinuses	PJ Wormald
Australian Society Otolaryngology Head and Neck Society Scientific Meeting, Melbourne, March 2006	Beyond the sphenoid sinus	PJ Wormald
Functional Endoscopic Sinus Surgery Course, United Kingdom, June 2006	Frontal recess/sinus anatomy and endoscopic approaches Axillary flap, frontal recess Anterior and posterior ethmoidectomy, sphenoidotomy DCR 'Mucosal Flap Technique' SPA ligation and vidian neurectomy Endoscopic medial maxillectomy Modified endoscopic lothrop (MEL) CSF leak closure 'Bath Plug' technique Endoscopic pituitary surgery	PJ Wormald
Frontiers – Garnett Passe & Rodney Williams Memorial Fund Scientific Meeting, Queensland, July 2006	Chronic sinusitis: A disease in evolution	PJ Wormald
Advanced Rhinology Symposium, Chung Gang Memorial Hospital, Taipei, August 2006	The anatomy and 3-D reconstruction of the frontal sinus The axillary flap and frontal sinus minitrephine The management of recalcitrant frontal sinusitis: Modified Lothrop procedure 3D reconstruction and surgery of the posterior ethmoids and sphenoids Malignant tumors of the nose Intracranial transnasal surgery	PJ Wormald
37th International Workshop, Functional Endoscopic Sinus Techniques, Graz, Austria, September 2006	The anatomy and 3D reconstruction of the frontal recess and frontal sinus "Endoscopic modified Lothrop" Powered endoscopic DCR-techniques The management of the severely diseased maxillary sinus Endoscopic management of benign tumors Acquired immune system and the response in fungal sinusitis Management of bloody surgical field Endoscopic medial maxillectomy and resection of tumors of the infra-temporal fossa Transnasal intracranial surgery Endoscopic management of malignant tumors	PJ Wormald
American Society of Rhinology – Annual Scientific Meeting, Ontario, Toronto, September 2006	A sheep model for the study of biofilms in sinusitis Endonasal Surgery of the clivus – and beyond	PJ Wormald

Conference Title And Date	Title Of Talk/Poster	Name
OTOLARYNGOLOGY HEAD AND NECK SURGERY Department of (Continued)		
American Otolaryngological Society – Annual Scientific Meeting, Ontario, Toronto, September 2006	Endoscopic frontal recess surgery Modified endoscopic Lothrop procedure Miniseminar – "Contemporary evaluation of recalcitrant rhinosinusitis" Powered endoscopic dacryocystorhinostomy	PJ Wormald
Australian Rhinologic Society, Barossa Valley SA, October 2006	Management of the maxillary sinus – keynote speaker	PJ Wormald
9th Advanced Functional Endoscopic Sinus Surgery Course, Adelaide, October 2006	The anatomy and endoscopic approaches to the frontal recess Review of CT scans with reconstruction of the anatomy of the frontal recess Middle meatal anastomies, frontal recess, posterior ethmoidectomy and sphenoidectomy Dacryocystorhinostomy Modified endoscopic Lothrop Skull base dissection Management of bloody surgical field	PJ Wormald
RENAL UNIT		
Transplantation Society of Australia & New Zealand, 24th Annual Scientific Meeting, Canberra, March 2006	Identification of Thymic cellular populations in common marmoset monkeys The common marmoset as a novel pre-clinical transplant model: DRB genotyping and prediction of allo-reactivity The In Vitro suppression function of immunomagnetically isolated ovine CD4+ CD25+ T cells expressing Foxp3 mRNA	S Kireta, A Milton, S Alexander, PTH Coates S Prasad, P Bardy, I Humphreys, S Kireta, R Gilchrist, G Russ, PTH Coates W Munasinghe, S Kireta, R Krishnan, G Russ
Transplantation Society of Australia & New Zealand, 24th Annual Scientific Meeting, Canberra, March 2006	Immunosuppressive agents affect expression and function of the inhibitory receptors ILT3 and ILT4 in dendritic cells Adenoviral CTLA4-EGFP transduced dendritic cells inhibit ovine skin allograft rejection in a NOD-scid mouse model Small interfering RNA mediated silencing of CD40 in dendritic cells	B Fedoric, G Russ, R Krishnan A Newland, G Russ, R Krishnan N Mabarrack, G Russ, R Krishnan
The Queen Elizabeth Hospital Research Day, Adelaide, October 2006	In-vitro propagation of dendritic cells from marmoset and human monocytes Modifying dendritic cell function by siRNA mediated silencing of PKCβII Modifying the alloimmune response in organ transplantation by inducing HLA-G expression	S Kireta, S Prasad, R Gilchrist, P Bardy, G Russ, I Lewis, PTH Coates D Rojas, G Russ, R Krishnan, B Fedoric, G Russ, R Krishnan
Australian and New Zealand Society of Nephrology Conference, Melbourne, August 2006	Initial patient experience with cinacalcet in dialysis patients with severe and refractory secondary hyperparathyroid disease (poster)	M Divi, K Mahadevan, A Disney

Conference Title And Date	Title Of Talk/Poster	Name
RESPIRATORY MEDICINE UNIT		
European Respiratory Society, Munich, September 2006	Informed patients as drivers of evidence based medicine: 12 month results of a trial in COPD	M Harris, B Smith, A Veale, A Esterman
Thoracic Society of Australia and New Zealand, Annual Scientific Meeting, Canberra, March 2006	Endobrochial foreign bodies – a case series	A Roy, B Smith
	Continuous positive airway pressure delivery interfaces for obstructive sleep apnoea (A Cochrane Review)	CL Chai, B Smith, A Pathinathan
	Informed patients as drivers of evidence based medicine: 12 month results of a trial in COPD	M Harris, B Smith, A Veale, P Frith, A Esterman, P Selim
Thoracic Society of Australia and New Zealand, Annual Scientific Meeting, Canberra, March 2006	Effects of inhaled corticosteroids on bone mineral density: a review of cross-sectional studies	J Wlodarczyk, B Smith
2006 Inaugural Australian Lung Cancer Conference: Multidisciplinary Care, Queensland, June 2006	Patterns of survival: non small cell lung cancer and small cell lung cancer	K Pittman, K Patterson, T Price, B Smith
RHEUMATOLOGY UNIT		
Annual Scientific meeting of the Australian Rheumatology Association (SA branch), Adelaide, October 2006	Retrospective audit of latent tuberculosis screening practices at Royal Perth Hospital in patients undergoing biological treatment for rheumatoid arthritis	E Ang
Arthritis Foundation Public Symposium, Adelaide, May 2006	Rheumatoid arthritis Arava and TNF inhibitors	S Burnet
General Practice Lecture, Adelaide, June 2006	Rheumatoid arthritis Osteoarthritis Biologic anti-rheumatic treatments	S Burnet
General Practice Lecture, Adelaide, August 2006	Rheumatoid arthritis Osteoarthritis Biologic anti-rheumatic treatments	S Burnet
General Practice Lecture, Adelaide, September 2006	NSAIDs in Rheumatoid arthritis Osteoarthritis & Rheumatoid arthritis	S Burnet
General Practice Lecture, Adelaide, October 2006	Biologic anti-rheumatic treatments Joint injection techniques	S Burnet
Keynote Talk at Rheumatology Symposium, Christian Medical College, Vellore, India, December 2006	Management of the painful shoulder Update on rheumatoid arthritis Biologic agents in the management of rheumatic diseases	S Burnet
National Conference of Indian Rheumatology Association, Lucknow, India, December 2006	Management of the painful shoulder	S Burnet

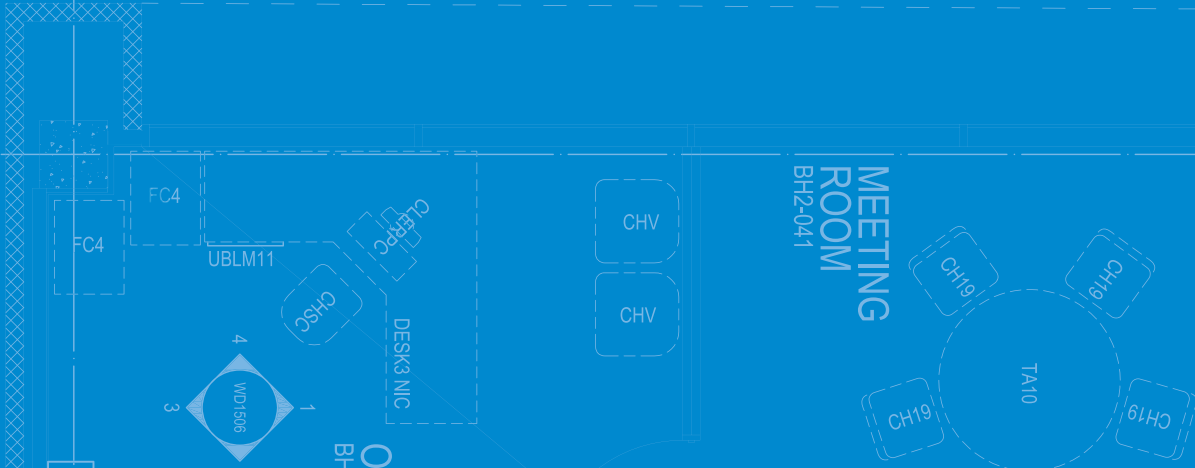
Conference Title And Date	Title Of Talk/Poster	Name
RHEUMATOLOGY UNIT (Continued)		
CYO_GTG quarterly retreat, Melbourne, September 2006	DLA typing in the Greyhound	R Fliegner, S Holloway, S Lester
	Interferon- α and autoimmune disease	S Lester
50th Annual General Assembly and Scientific Meeting of Japan College of Rheumatology, Nagasaki, Japan, April 2006	Influence of CTLA-4 haplotypes upon susceptibility and extraglandular manifestations in Australian patients with primary Sjögren's syndrome	S Downie-Doyle
Annual Scientific Meeting of Australasian Sleep Association, Perth, October 2006	Upper airway surface tension and collapsibility are normal in primary Sjögren's syndrome	CJ Hilditch, PG Catcheside, M Rischmueller, RD McEvoy
Annual Scientific Meeting of American College of Rheumatology, Washington, DC. November 2006	Quality of reporting of randomized clinical trials (RCTs) in abstracts of the 2005 annual scientific meeting of American College of Rheumatology	CL Hill, R Osborne, R Buchbinder
	Prevalence of foot pain in a population-based cohort study	CL Hill, T Gill, A Taylor
Annual Scientific Meeting of International Union of Pharmacology & Pacific Rim Association for Clinical Pharmacology, China, 2006	Predicting efficacy of methotrexate in a cohort of early arthritis patients by analysis of common polymorphisms in the folate pathway	H James, D Gillis, P Hissaria, S Lester, A Somogyi, L Cleland, S Proudman
Annual Scientific meeting of the Australian Rheumatology Association (SA branch), Adelaide, October 2006	Functional SNPs in the P2X7 receptor gene influence susceptibility to Ro/La autoantibodies in primary Sjögren's syndrome	S Lester, M Rischmueller, S Downie-Doyle, K Skarrit, J Wiley
Scandinavian Congress of Rheumatology, Iceland, August 2006	B lymphocyte activating factor (BAFF) promoter region polymorphism in relation to serum BAFF levels and autoantibody status in patients with primary Sjögren's syndrome	J Nossent, M Rischmueller, S Lester
Annual Scientific meeting of the Australian Rheumatology Association (SA branch), Adelaide, October 2006	B lymphocyte activating factor (BAFF) promoter region polymorphism, serum BAFF levels and autoantibody status in patients with primary Sjögren's syndrome	J Nossent, M Rischmueller, C MacKay, D Zahra, T Gordon, S Downie-Doyle, S Lester
Modern Management in Rheumatology Conference, Kingscliff, NSW March 2006	ACT: Life skills for active living with rheumatoid arthritis	M Rischmueller
The IXth International Symposium on Sjögren's Syndrome, Washington, April 2006	Parasympathetic dysfunction and urological symptoms in Primary Sjögren's Syndrome	M Rischmueller
Training Workshop for Rheumatoid Arthritis Educators, Sydney, May 2006	ACT: Life skills for active living with rheumatoid arthritis	M Rischmueller
48th Annual Scientific meeting of the Australian Rheumatology Association, Perth, May 2006	Novel treatments in systemic lupus erythematosus and Sjögren's syndrome	M Rischmueller
Annual Clinical and Scientific Meeting of the Australasian Rheumatology Health Professionals Association, Perth, May 2006	Update on Sjögren's Syndrome	M Rischmueller

Conference Title And Date	Title Of Talk/Poster	Name
RHEUMATOLOGY UNIT (Continued)		
School of Pharmacy and Medical Sciences, University of South Australia Research Seminar, June 2006	Pathogenic mechanisms in Sjögren's syndrome	M Rischmueller
12th Asia Pacific League of Associations of Rheumatology (APLAR) Congress. Kuala Lumpur, Malaysia, August 2006	New advances in the pathogenesis of Sjögren's syndrome	M Rischmueller
Annual Scientific Meeting of the Australian Rheumatology Association (SA Branch), Adelaide, October 2006	Sjögren's syndrome update	M Rischmueller
SURGERY University Of Adelaide, Discipline of		
Royal Australasian College of Surgeons Annual Scientific Congress, Sydney, May 2006	Effect of pre-operative variables on the mid-term outcomes for patients treated in Australia for endovascular aneurysm repair	R Fitridge, M Boulton, M Barnes, G Maddern
	The infected aortic graft	D Morrow, S Raptis, R Fitridge
Vascular 2006, Cairns, September 2006	The new RACS "integrated training system" – what it means for vascular surgery	R Fitridge
	Australian experience in EVAR for AAA <5.5 cm: results from ASERNIP-S	J Golledge, M Boulton, M Barnes, R Fitridge
	Cytokine profiles as predictors of the development of sepsis after surgery for abdominal aortic aneurysm repair	R Fitridge, P Cowled, J Ahern, T Hassen, G Hodge, H Zola, J Field
	Arm vein bypass grafts as a last autogenous option for infrainguinal bypass surgery: are they worth the effort?	R Varcoe, W Chee, P Subramaniam, D Roach, R Fitridge, G Beneveniste
European Vascular Surgical Society, Prague, September 2006	Pre-operative nutritional status and the development of systemic inflammatory response syndrome and sepsis following major vascular surgery	T Hassen, S Pearson, P Cowled, R Fitridge
Australian Health and Medical Research Council, Melbourne, November 2006	Cytokine profiles as predictors of the development of sepsis after surgery for abdominal aortic aneurysm repair	R Fitridge, P Cowled, J Ahern, T Hassen, G Hodge, H Zola, J Field
Department of Surgery Research Dinner meeting, Adelaide, March 2006	Statins and skeletal muscle ischaemia reperfusion injury	P Cowled
Cardiology Unit Research Seminar series, The Queen Elizabeth Hospital, March 2006	Statins and skeletal muscle ischaemia reperfusion injury	P Cowled
Basil Hetzel Institute for Medical Research Seminar, The Queen Elizabeth Hospital, Adelaide, March 2006	A role for nitric oxide and statins in modulating skeletal muscle ischaemia reperfusion injury	P Cowled
Western Hospital Dinner and CPD meeting, Adelaide, April 2006	The surgery for rectal cancer	N Rieger
South Australian Stomal Therapy Nurses Association meeting, Adelaide, June 2006	Mechanical bowel preparation in colorectal cancer	N Rieger

Conference Title And Date	Title Of Talk/Poster	Name
SURGERY University of Adelaide, Discipline of (continued)		
Royal Australasian College of Surgeons State Annual Scientific meeting, Adelaide, August 2006	Complete pathological response after preoperative chemoradiotherapy in the treatment of rectal cancer	A Ciccocioppo, N Rieger, P Hewett, D Rodda, J Stephens
	Laparoscopic colectomy: A study of open conversion	PY Tan, P Hewett, D Rodda, J Stephens, N Rieger
	Six year, prospective analysis of rectal bleeding clinics at The Queen Elizabeth Hospital, Adelaide, South Australia	J Lee, N Rieger, J Stephens, P Hewett, D Rodda
Continence Forum and Information Day, Continence Awareness Week, Independent Living Centre, Adelaide, August 2006	The bowel and its contribution to incontinence	N Rieger
2006 Xijing Hospital Laparoscopic Gastric and Colorectal Surgery International Conference and Workshop, Xi'an, China, 2006	Laparoscopy for colorectal disease	N Rieger
Tangdu Hospital, Xi'an, China, 2006	Laparoscopic right hemicolectomy	N Rieger
	Training, tips, learning laparoscopic surgery	N Rieger
2006 Ventral Hernia ;MIS International Forum, Fundan University Huashan Hospital, Shanghai, China, 2006	Training, tips, learning laparoscopic surgery	N Rieger
Australian Gastro-Intestinal Trials Group Annual Scientific Meeting, Adelaide, 2006	Chemoradiotherapy for rectal cancer	N Rieger
South Australian Stomal Therapy Nurses Association meeting, Adelaide, 2006	Laparoscopic APR for rectal cancer	N Rieger
Vellore Medical Conference, Vellore, India, January 2006	Laparoscopic treatment of colorectal cancer	P Hewett
14th Seminars in Operative Surgery, "Extreme Surgery", The Queen Elizabeth Hospital, Adelaide, March 2006	Pseudomyxoma peritonei	P Hewett
Quasar 2 meeting, September 2006	Clinical trials in surgery	P Hewett
Postgraduate Nurse Study, The Queen Elizabeth Hospital, Adelaide, September 2006	Surgical management of breast cancer	D Walsh
Pfizer GP Seminar, Clare, November 2006	Early breast cancer in 2006	D Walsh
International Society for Diseases of the Esophagus, Adelaide, February 2006	Chylous fistula	G Maddern
Writing and Speaking Conference, Royal Adelaide Hospital, Adelaide, March 2006	Presenting at a conference	G Maddern
14th Seminars in Operative Surgery, "Extreme Surgery", The Queen Elizabeth Hospital, Adelaide, March 2006	How much liver can we take?	G Maddern

Conference Title And Date	Title Of Talk/Poster	Date
SURGERY University of Adelaide, Discipline of (continued)		
Health & Lifestyle Expo, Clinician Networking Dinner, Auckland, NZ, March 2006	Cost effective health delivery	G Maddern
Health & Lifestyle Expo, Consumer Forum, Auckland, NZ, March 2006	Australian and New Zealand Audit of Surgery Mortality	G Maddern
Health & Lifestyle Expo, Consumer Forum, Auckland, NZ, March 2006	New surgical technologies: The ASERNIP-S experience	G Maddern
Australian and New Zealand College of Anaesthetists Annual Scientific Meeting, Adelaide, May 2006	Medical workforce solutions: delegation or substitution?	G Maddern
BankSA Trends Economic Business Luncheon, Adelaide, June 2006	Grey gold or fools' gold?	G Maddern
Royal Prince Alfred Hospital Medical Officers Association 72nd Annual Reunion, RPA, Sydney, June 2006	The process of assessment of new technology	G Maddern
HTAi Preconference Workshop, Adelaide, July 2006	Biotechnology and emerging technologies: the value of innovation – Clinical perspective	G Maddern
3rd Annual HTAi meeting, Adelaide, July 2006	Plenary session: The 'theatre' of HTA – Examples of HTA in surgery	G Maddern
7th World Congres of IHPBA, Edinburgh, Scotland, September 2006	Assuring quality in HPB surgery: efficacy and safety	G Maddern
SBU/Euroscan Horizon Scanning Workshop, Stockholm, Sweden, September 2006	Horizon scanning: the next steps	G Maddern
10th World Congress of Endoscopic Surgery, Berlin, Germany, September 2006	Laparoscopic staging of gastric cancer	G Maddern
10th World Congress of Endoscopic Surgery, Berlin, Germany, September 2006	Curriculum structures for laparoscopic training in Australia	G Maddern
The Mithoefer Center for Rural Surgery, Cooperstown, NY, September 2006	A model of rural surgery in Australia	G Maddern
The Mithoefer Center for Rural Surgery, Cooperstown, NY, September 2006	International rural surgery: the Australian experience	G Maddern
South Australian Council of Social Service, Spotlight on Social Justice Conference, Adelaide, October 2006	South Australia: Healthy, wealthy and wise?	G Maddern
Australian Health Insurance Association Conference, Sydney, November 2006	New surgical technologies: the ASERNIP-S experience	G Maddern

Research Support Structures



Research Support Structures



The Basil Hetzel Institute Policy Committee

Established in 1996, the Clinical Development Research Centre, now the Basil Hetzel Institute (BHI) Policy Committee's role is to provide strategic advice for the running of the BHI and to optimise the available support for research programs across The Queen Elizabeth Hospital (TQEH).

The Committee is comprised of senior representatives from:

- the two Universities with whom the Hospital is affiliated, Adelaide University and the University of South Australia;
- academic Heads of Departments at TQEH (Medicine and Surgery);
- research nursing;
- a senior representative from Allied Health, and
- the scientific community.

Professor Guy Maddern was reappointed to the position of Director of Research in February 2005 for a five-year term. This leadership position has been critical to furthering the aims of research excellence and enhancing the research reputation of TQEH.

Several Sub-Committees assist the BHI Policy Committee as required, notably the:

- Research Day Organising Committee, chaired by Dr Prue Cowled, University of Adelaide Discipline of Surgery, in the planning and running of the annual Research Day event.
- Scientific Advisory Committee in allocating funds made available by TQEH Research Foundation for research projects, and
- Scholarship Selection Committee, chaired by Professor Maddern, in awarding a range of Scholarships funded by TQEH Research Foundation.

- BHI Management Committee, chaired in 2006 by A/Prof Ray Morris, Clinical Pharmacology Unit, in managing the existing BHI facility, working with the architects and redevelopment team to develop the planned new facility and in due course to manage the new BHI facility, including managing the move.

The Hospital's Research Secretariat undertakes a range of activities to assist the Director in promoting, fostering and administering quality research activity across TQEH.

Research Training

The BHI Policy Committee aims to support the research capacity within basic and clinical areas through its strategy of providing a number of Scholarships at Postgraduate, Honours and Vacation levels.

Research training promotion

In 2006 research training opportunities and Scholarship support were actively promoted through posters distributed to key and through the hospital's research Internet site with links from key University research training sites.

Strategy for 2006

The goals of the research support strategy were to provide up to:

- 7 TQEH Research Foundation Postgraduate Research Scholarships
- 15 TQEH Research Foundation Honours Scholarships
- 4 TQEH Research Foundation Vacation Scholarships

Vacation Research Scholarships

14 placements offered in TQEH research settings over the 2005/2006 vacation were generously funded through the Research Foundation, and provided scholars with the opportunity to gain valuable research experience in a clinical environment. The excellent quality of the oral presentations given by students at the end of their placement clearly reflects the collaborative effort of both the students and their supervisors.

Honours Research Scholarships

Honours Scholarships continued to be offered at TQEH in 2006. 10 Scholarship recipients undertook projects across a range of Departments, including Clinical Pharmacology, Haematology-Oncology, Transplantation-Immunology, and the University of Adelaide Discipline of Obstetrics and Gynaecology.

Higher Degrees

In the year 2006 over 80 scholars were undertaking research towards Higher Degrees at TQEH. A continuing generous level of funding from the TQEH Research Foundation has allowed a number of existing scholars as well as seven new students to be supported in 2006. Scholarships provide for stipends which match the Australian Postgraduate Award (APA) rate, and a maintenance allowance for each student to assist the Department in which they are undertaking the research work. Sources of financial support for other higher degree students at TQEH include government (NHMRC) the University (APA, UAS, and Faculty 'Divisional' scholarships) and the non-profit sector (for example, Kidney Health Australia).

Research Day 2006

Research Day is an annual event in the research calendar at TQEH, and with the generous sponsorship support of the Foundation, provides a significant and useful training opportunity for research scholars "in training" from medical, scientific, nursing and allied health backgrounds. The purpose of the day is to further enhance the communication skills of those presenting, under conditions that are typical of most professional society congresses. With this opportunity and experience, it is hoped the research quality from TQEH will benefit as researchers move on to deliver their work to national and international congresses. This year the Day was once again very successful and our winners are identified in the Award section of the Report. We take this opportunity to also formally thank Mr Rob Morrison, academic and Science Broadcaster for his excellent Plenary talk titled "Trust Me, I'm a Science Communicator".

Basil Hetzel Institute (BHI) Policy Committee

Current Members, December 2006

Prof Guy Maddern
Prof Richard Ruffin
Prof Justin Beilby (proxy - Prof Andrew Somogyi)
Mr David Norton
A/Prof Peter Bardy
Prof Bernie Hughes
Ms Diana Brown
Dr Jenny Kennedy
Dr Prue Cowled
Dr Ravi Krishnan
Dr Jennifer Hardingham
A/Prof Ray Morris
Mr John Michell
Mr Maurice Henderson

Ex-officio

Dr Robert Adams

Executive Support

Ms Gwenda Graves

Basil Hetzel Institute (BHI) Management Committee

Current Departments represented/appointed members, December 2006

Department/Unit	Representative	Proxy
Cardiology	Prof John Horowitz	Dr Jenny Kennedy
Clinical Pharmacology	A/Prof Ray Morris	
Gastroenterology	Dr Adrian Cummins	Ms Wendy Uylaki
Haematology-Oncology	Dr Richard D’Andrea	Dr Jenny Hardingham
Medicine	Dr Peter Zalewski	
Neurology	Dr Anne Hamilton-Bruce	Dr Simon Koblar
Renal	Dr Toby Coates.	Dr Ravi Krishnan
Rheumatology	Ms Sue Lester	
Surgery	Dr Prue Cowled	
Surgery (ENT)	Dr Lor Wai Tan	

Postgraduate Representative for 2006

Dr Alkis Psaltis

Executive Support

Ms Gwenda Graves

A/Prof Ray Morris is the current Chair of the Committee.

2006 Award Winners
TQEH Research Day 2006



Research Day 2006 Group photo

Left to right: Rosanna Tavella, Alkis Psaltis, Christine Ball, Deirdre Zander, Khanh Tran, Achim Beule, Wendy McInnes, Darling Rojas

Honours Students, Basic Science

(Prize sponsored by the Department of Health – Strategic Planning, Policy and Research)

Darling Rojas

Transplantation - Immunology Laboratory, Renal Unit, TQEH
“Modifying dendritic cell function by siRNA mediated silencing of PKCβII”

Higher Degrees, Basic Research Group 1

(Prize sponsored by TQEH Research Foundation)

Deirdre Zander

University Department of Obstetrics and Gynaecology, TQEH (Research Centre for Reproductive Health)
“ Stress and the embryo: are mitochondria the weakest link?”

Higher Degrees Basic Research Group 2

(Prize sponsored by TQEH Research Foundation)

Christine Ball

Cardiology Unit, TQEH
“Comparative effects of efonidipine and verapamil on human subcutaneous microvascular constrictor responses”

Higher Degrees Clinical Candidates

(Prize sponsored by TQEH Research Foundation)

Alkis Psaltis

Department of Otolaryngology Head and Neck Surgery, TQEH
“An animal model for the study of biofilms in rhinosinusitis”

Nursing and Allied Health

(Prize sponsored by TQEH Research Foundation)

Wendy McInnes

Vascular Unit, Division of Surgery, TQEH
“Which Bank?” The Dressing Bank

Higher Degrees Clinical Trainees

(Prize sponsored by TQEH Research Foundation)

Achim Beule

Department of Otolaryngology Head and Neck Surgery, TQEH
“The effect of plasminogen and tranexamic acid on wound healing using an in vitro human nasal fibroblast model”

Undergraduates: Medical and Summer Students

(Prize sponsored by University of Adelaide
Faculty of Health Sciences)

Khanh Tran

Department of Otolaryngology Head and Neck Surgery,
TQEH "Frontal ostium restenosis after the endoscopic modified
Lothrop procedure"

Poster Display

(Prize sponsored by TQEH Research Foundation)

Rosanna Tavella

Cardiology Unit, TQEH

"Comparison of health-related quality of life amongst patients
with an acute or chronic angina syndrome"

Other Awards

S Downie-Doyle. Awarded Japanese College of Rheumatology International Scholarship to attend 50th Annual General Assembly and Scientific Meeting of Japan College of Rheumatology, April 23rd to 26, 2006 in Nagasaki, Japan. Presentation titled "Influence of CTLA-4 Haplotypes upon susceptibility and extraglandular manifestations in Australian patients with primary Sjögren's Syndrome".

T Athanasiadis. The Ron Gristwood Medal for best scientific presentation, ASOHNS State Section Meeting, Adelaide, November 2006.

K Ha, A Psaltis, LW Tan, PJ Wormald. The Maurice Cottle Award for the best paper, American Rhinologic Society Annual meeting, Toronto, September 2006.

A Psaltis, K Ha. Sir Edwin Hughes Memorial Clinical Research Prize in Surgery for the best presentation by a surgical trainee in Australia and New Zealand, Sir Edwin Hughes Memorial Research Presentations, Monash University, Melbourne, October 2006.

CJ Lang. Asian Pacific Society of Respiriology (APSR) Career Development Award (\$US1,000) 2006.

CJ Lang. Qantas Researcher Travel Support Grant for Emerging Researchers (\$2,500) 2006.

R Kwiatek, L Barnden, S Behin-Ain, J Kasza, R Tedman, D Danda, K Pile. "Optimised SPECT Analysis of Regional Cerebral Blood Flow in Fibromyalgia". Best Clinical Poster Award at the Annual Scientific Meeting of Australian Rheumatology Association. Perth, May 2006.

GJ Maddern. Finalist, Premier's Science Excellence Awards Science Technology and Innovation Management Excellence category.

T Hassen. European Society for Vascular Surgery Annual Scientific meeting. Awarded second prize (E1,500) for her paper "Pre-operative nutritional status and the development of systemic inflammatory response syndrome and sepsis following major vascular surgery" Prague, September 2006. We have a student photo of T Hassen

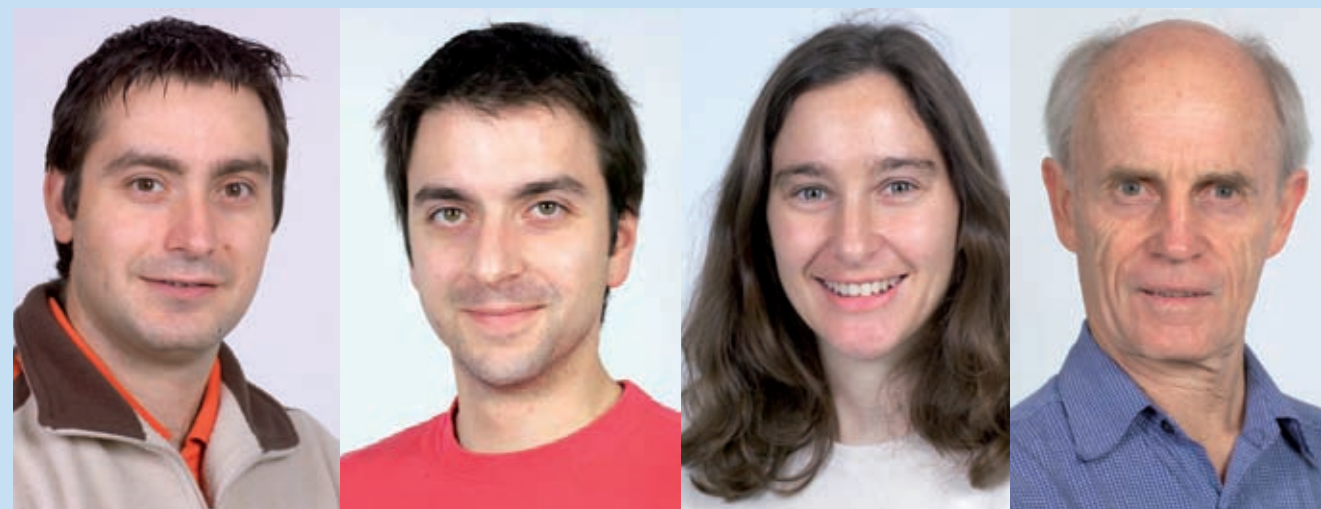
S Stephenson. Women of Distinction Award for Medical Research by the Council for International Trade and Commerce, South Australia.

D Lekamge. "Role of AMH in reproductive function" Dr Jack O'Loughlin Medal for best presentation at the State RANZCOG Registrars presentation night 2006.

J Cook. "A Randomised Trial comparing Mirena and MEA in the treatment of heavy menstrual bleeding" Awarded Best Free Communication at the AGES/APAGE meeting, September 2006 (Sydney).

J Cook. "Site-specific Pelvic Floor Repair: Outcome at 2 years" Awarded Best Free Communication at the AGES Annual Scientific meeting, May 2006 (Adelaide).

K Tremellen. "A RCT investigating the effect of a novel antioxidant treatment on IVF-ICSI pregnancy outcome" Best clinical presentation, Fertility Society of Australia 2006. Awarded exchange lecture to the British Fertility Society (\$5,000 travel grant)

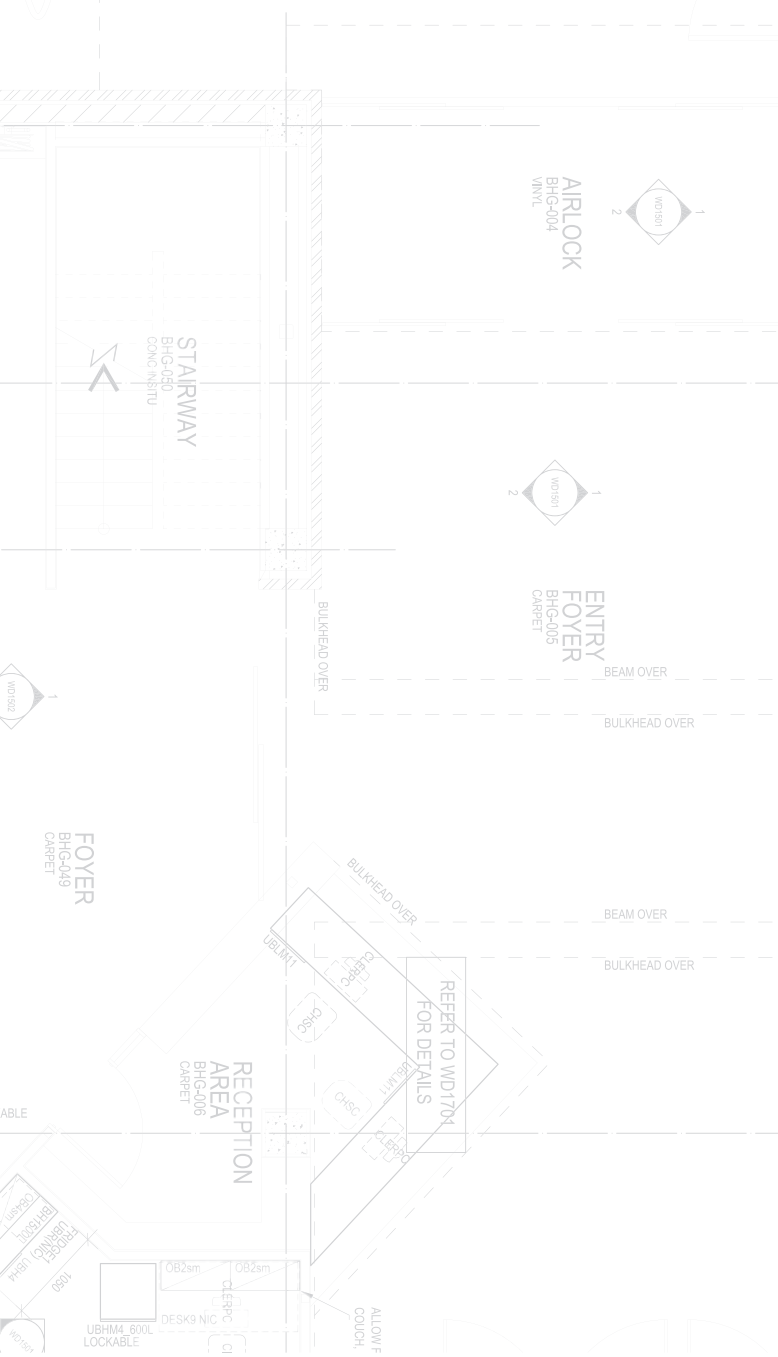


From top left:
T Athanasiadis
A Psaltis
CJ Lang
L Barnden



From bottom left:
S Stephenson
GJ Maddern
K Tremellen

Not photographed:
S Downie-Doyle
T Hassen
D Lekamge
J Cook



Acknowledgements

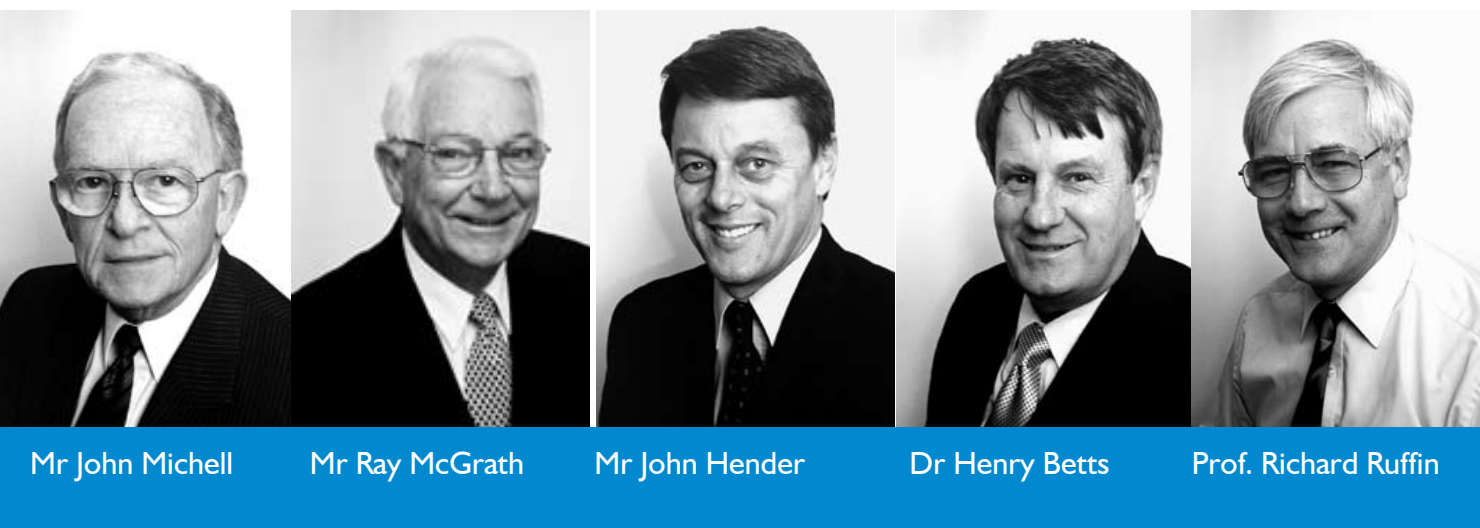
The Queen Elizabeth Hospital gratefully acknowledges and thanks the following organisations for their support to medical, scientific, nursing and allied health research:

Adelab Scientific
Adelaide Dental Hospital
Adelaide Integrated Biosciences (AIB) Laboratories
Adelaide Microscopy
AGEN Biomedical Pty Ltd
American Rhinologic Society
Ann-Marie Trimboli Trust Fund
Arthritis Foundation of Australia
ASERNIPS
Asis Scientific
AstraZeneca
AusIndustry
Australian and New Zealand Society of Nuclear Medicine (ANZSNM)
Australian Diabetes Society of Servier
Australian Government Commercialising Emerging Technology (COMET)
Australian Lung Foundation
Australian Red Cross Blood Service
Australian Research Council (ARC)
Australian Rheumatology Association
Australian Society of Otolaryngology Head and Neck Surgery (ASOHNS)
Baker Research Institute Melbourne
Baxter Healthcare
BioInnovationSA
Boehringer Ingelheim Pty Ltd
Brailsford Robertson
Breast Cancer Research Association
Cancer and Bowel Research Association
Channel 7 Children's Medical Research Foundation of SA
Child Health Research Institute
CMAX
Colin Matthews, Professor
Commonwealth Department of Health and Ageing
Cooperative Research Centre for Chronic Inflammatory Diseases
CSIRO
CY O'Connor ERADE Village WA
Department of Health SA
Diabetes Australia
Divisions of General Practice
Faculty of Health Sciences
Fertility Society of Australia
Flinders University of South Australia
Freemason's Medical Research Trust
Garnett Passe and Rodney Williams Memorial Foundation
GlaxoSmithKline
Hanson Institute
Honda Foundation
Janssen-Cilag
Juvenile Diabetes Research Foundation
Kidney Health Australia
Les Cleland, Professor

Leukemia and Lymphoma Society (USA)
Lions Club of Elizabeth
Lyell McEwin Hospital
Masonic Foundation
MF and MH Joyner (Scholarship in Medicine)
Monash University Melbourne
National Breast Cancer Council
National Institutes of Health USA
National Health & Medical Research Council (NHMRC)
National Heart Foundation of Australia
Novartis Pharmaceuticals
Osteoporosis Australia
Perpetual Trustees
Peter MacCallum Institute
Qantas
Repatriation General Hospital
ReproMed
Research Australia
Rotary Club of Elizabeth
Rotary Club of West Lakes
Rotary Club of Woodville
Royal Adelaide Hospital
Royal Children's Hospital Melbourne
Royal Australian College of General Practitioners
Royal Australasian College of Physicians
Royal Australasian College of Surgeons
Sanofi Aventis
Servier Laboratories Australia
Shering Plough
Stanford University USA
Stem Cell Technologies Inc
Stroke SA
Sir Edwin Hughes Memorial Research
South Australian Medical Research Trust
St Louis University USA
St Vincent's Hospital Melbourne
Sydney Children's Hospital
The Cancer Council of South Australia
The Queen Elizabeth Hospital Research Foundation
University of Adelaide
University of Queensland
University of Melbourne
University of South Australia
Vincent Fairfax Family Foundation
Walter and Eliza Hall Institute
Witchery
Women's and Children's Hospital

The Queen Elizabeth Hospital Research Foundation

Board Members



The Queen Elizabeth Hospital Research Foundation

Overview

For over forty years, The Queen Elizabeth Hospital Research Foundation has been working for the benefit of the South Australian community, by raising funds to support world class and innovative medical and health research. As a major source of unrestricted funding for research to The Queen Elizabeth Hospital, the Research Foundation has helped it to carry out valuable work in the fields of cancer research, heart and kidney disease and other serious illnesses.

The Research Foundation funding supports activity in the Basil Hetzel Institute for Medical Research at the hospital. The Policy Committee of the Basil Hetzel Institute determines the priorities for research and recommends to the Research Foundation where the funds are best used.

The Research Foundation has the priority of funding young researchers and as such provides a number of scholarships, as well as allocating funds for research projects and much needed research equipment.

Specifically, the Research Foundation has raised funds to support the on-going work of the 200 staff involved in research. In the past 8 years over \$6 million has been gifted to research. The organisation has been an enabler to all those involved in research work.

Funds are raised through a variety of fundraising programs which attract support from the corporate and private sectors, service clubs, community groups and individuals.

Using the talents and skills of the staff at the Research Foundation, we are able to make the educated ideas of the researchers a reality. We know that research is not just a beginning; it is a continuing circle of discovery and outcomes.

Management

Many distinguished South Australians have volunteered their time and expertise as Members of the Board of The Queen Elizabeth Hospital Research Foundation. The Research Foundation is particularly fortunate to have the support and dedication of these people, who work in a purely voluntary capacity for the benefit of the wider community.

Members of the Board

Current:

Chairman

Mr John Michell - Director, GH Michell & Son Pty Ltd

Deputy Chairman

Mr Ray McGrath - Managing Director, McGrath Group

Mr Harold Anderson AM JP - Mayor, City of Charles Sturt

Dr Henry Betts - Principal Research Scientist, Rheumatology Laboratory, The Queen Elizabeth Hospital

Ms Hermine Bergmann - General Manager, Jarvis Marketing

Ms Chloe Fox - Member for Bright

Mr John Hender - Business Development Manager, Great Southern Securities Pty Ltd

Mr Terry Lewis - Partner, KPMG

Mr John MacPhail - Partner, Finlaysons Lawyers

Prof. Richard Ruffin - Head Division of Medicine, The Queen Elizabeth Hospital

PAST:

Mr Steve Bonett - Partner, Finlaysons

Mr Paul Caica - Member for Colton



THE QUEEN ELIZABETH HOSPITAL
RESEARCH FOUNDATION INC.



Chairman's Report

It gives me great pleasure to present my 7th Chairman's Report and my 22nd as a Member of the Board.

The previous twelve months have once again been extremely successful for the Research Foundation. Once again we have increased our funding to research by over 20%, which is the sixth consecutive year we have had such growth. Such growth is outstanding, but to look at the increasing competition for the 'charity dollar', as well as the number of charities which are finding fundraising increasingly more difficult, it is an outstanding result.

When asked why we are so successful, I believe it is due to a number of factors. The first one being the Board understands what its role is. The Board is here to set the direction for the organisation through planning and policy. Once this is done the responsibility for the implementation is given to management of the Research Foundation. Outsiders often find it hard to believe, but not only does the Board give their expertise and time, but they all also donate to the organisation.

The strength of the Board is the balance between those who have served for an extended period and the fresh faces around the table. During the year we changed the Constitution to allow for a further nine Board Members to join us. This flies in the face of the Board downsizing, which is taking place around us. We believe an organisation such as ours needs a greater reach into the business community, and this will only take place with business leaders directly involved with the direction of the organisation.

The stability at Board level has allowed the Research Foundation to have long-term goals, which are being achieved. Our Bequest Program was set up as a ten year plan, which was initially very cash intensive, and we are now reaping the rewards of this planning. The Major Lottery is another example of a courageous decision. Whilst this decision was not made lightly, there were months and months of information gathering and the due diligence was rigorous. The risk was reduced to an acceptable level and we proceeded and achieved a very successful outcome.

Whilst our Board sets the overall strategy, it is up to the management to develop the tactics, recommend them to the Board for adoption and then if agreed then implement them, often times with assistance of individual Board Members. There is not much benefit in having great strategies if there is not the management to develop the tactics and implement them. There is also no benefit in having the good management, without the resources to develop the tactics or to implement them.

The second key to the success of the Research Foundation has been the successful recruiting and appropriate resourcing of our management and staff. The underlying philosophy of investing in new fundraising methods has paid off time and time again.

Education and training of staff and volunteers is vital to the success and growth of the organisation. New ideas and the ability to successfully implement them are the essential ingredients of our success.

The Board and the staff are the mechanics of our business and whilst these have to operate effectively, they are only the conduit between the donors and the researchers. We must remember we are only the link between those who have the funds and the researchers who use those funds to seek the treatments and cures for the ailments, injuries and illnesses that inflict us.

I have concerns over the past few years with our fundraising success; we have been distracted from what our role is in. We need to communicate better with those who support the researchers and bring closer together those who are giving funds and those doing the research.

As our support of research increases, so does our responsibility to ensure the research we are supporting is of the best standards and managed effectively. I expect the Research Foundation will take a greater role in the management of research to ensure that as the Trustees of the funds we receive act appropriately.

With the plans we have in place, I am confident our rate of growth will continue at 20% per year, and in the 2009/10 year our target of \$3million to research will be achieved.

Thank you for continuing your support.

John Michell
Chairman

TQEH Research Foundation Board

Fundraising Initiatives

The Queen Elizabeth Hospital Research Foundation has a history of excellence in fundraising with a number of awards at state and national level received from the Fundraising Institute of Australia.

In order to reach our challenging financial goals, we have a number of established fundraising programs.

Life Guardian – Planned Giving

Our planned giving program, Life Guardians offers our donors the opportunity to leave a lasting legacy to research in South Australia. A strong base for future funding has been created through this program, as over 700 supporters have made a generous commitment to leave a lasting legacy to medical research by making a gift in their will.

Basil Hetzel Society

The Basil Hetzel Society and its stewardship activities have provided an avenue for acknowledgement of significant gifts of \$10,000 or more. Over 200 donors have already made this commitment and been acknowledged as members of this special group.

Dr Basil Hetzel played an important role in medical research at The Queen Elizabeth Hospital, and we were honoured that he would lend his name to our Bequest Society.

Tribute Funds

Tribute Funds are a positive and simple way for family and friends to remember a loved one. A Tribute Fund carries the name of your loved one, and is a living tribute to their life. In their name, we can continue to ensure that vital medical research takes place, to improve the health of our community and help find cures to some of the most devastating of diseases and illnesses.

Family and friends can support the loved one's fund by numerous activities, including contributing on significant dates like anniversaries and birthdays, by making monthly gifts, or choose to do active fundraising like dinners, auctions or quiz nights. The choice for support is personal and it's all about what feels right for the individual.

In-Memoriam

Our In-Memoriam program is a meaningful way for bereaved families to invite mourners to give a gift towards medical research to express their sympathy, in remembering a loved one. Making a gift in memory of a loved one is a thoughtful, generous gesture and represents a valuable contribute towards healthier solutions for our community – a fitting tribute to your loved one. In-memoriam donations are listed in our newsletters.



THE QUEEN ELIZABETH HOSPITAL
RESEARCH FOUNDATION INC.

Events

The Queen Elizabeth Hospital Research Foundation holds numerous innovative events throughout the year to raise vital funds for the continuation of medical research into illness and disease that can touch us all.

The Research Foundation set up The South Australian Medical Research Trust in 2001 in order to raise funds for this exceptional and vital work.

The South Australia Medical Research Trust supports a wide range of internationally acclaimed medical and health research conducted by researchers from all three of South Australia's Universities. Some projects focus on disease cure and prevention; others are aimed at improving quality of life, care and education.

One of the major fundraising activities of the Trust is the Annual Black Tie Dinner. Through the generous support of the corporate and wider South Australian communities, this event raises a significant amount of money each year.

The 2006 Venetian Masquerade Dinner was no exception, raising over \$90,000 for The South Australian Medical Research Trust, funding research into breast and prostate cancers, conducted at The Queen Elizabeth Hospital. This exceptional amount was the most ever raised in the history of the event!

The night was a great success due to the generosity and commitment of over 330 guests, including naming rights sponsors, AMP Foundation and MBA Financial Strategists.

A major highlight of the night was the \$100 ticket raffle, which gave the opportunity for two lucky people to win a trip to Rome and Venice valued at over \$10,000 kindly donated by Malaysia Airlines and Venture Holidays. The lucky winner was drawn by the newly appointed Patron of The South Australian Medical Research Trust, Mrs Mary Henderson.

Special thanks must go to our major sponsors Hansen Yuncken, Scott Salisbury Homes, Kendacraft Jewellery and Channel 9 and many generous sponsors, auction item donors, in-kind supporters and guests.

The Research Foundation was the beneficiary of several other major events throughout 2006, including The Advertiser Sunday Mail Foundation Ladies Day Clipsal 500 Luncheon, The Great Australian Wine Adventure and One Rundle Trading Co. Fashion Parade. For further information about our events contact Sandy Myhill on 8244 1100 or email sandy@tqehrf.com.au.

sa mrt
south australian
medical research trust

Development

Community Fundraising

The driving force of the Research Foundation's ability to continue funding research is the ongoing commitment of many community groups and individuals who raise funds to support research at the hospital. Community groups, such as the Rotary Club of West Lakes who generously donated \$5,000 in 2006, have committed themselves to raise money for the Research Foundation for the next three years. There have also been concerts, quiz nights, held by social committees in the hospital, dinners, bingo evenings, afternoon teas and school fundraisers. Each community group or individual created a fundraising activity which was exciting and profitable; to ensure a strong stream of fundraising to their chosen fields of research. We rely on these community groups for support; to help us raise much needed funds for research.

Many who support the Research Foundation's work have experienced very personal relationships with the need to provide funding to research. Often they only become aware of the important role research plays in the overall delivery of health, when a member of their family or friends is diagnosed with a life changing illness. However many supporters don't wait until illness strikes someone close to them, and support the work of the Research Foundation.

Direct Marketing

Our Direct Marketing program is one of our major sources of income into the Research Foundation. This is from our Direct mail program and our Telemarketing, or Call Centre operations.

The Direct Mail program is used to communicate with our existing donors, as well as making contact with new/potential donors. We send our 4 quarterly appeals to our donors, informing them of research projects happening in the Basil Hetzel Institute, and this program generates a steady income for the Research Foundation.

The Telemarketing program is used for acquisition of new donors, as well as keeping in contact with our existing donors. Our Telemarketing program generates money from our Key Medallion program, and Breast Cancer program.

We also have a Regular Giving program called 'Breath of Life' - our monthly pledge program, whereby the amount given and at what intervals, ie: monthly, quarterly, or even annually is selected by our donors. Monthly giving allows the Research Foundation to raise money, with a guaranteed minimum level of income from each month, making it one of the best ways to fundraise or give. This program also lowers our fundraising costs because our 'Breath of Life' donors don't receive our direct mail appeals - just a quarterly newsletter to inform them of our doings.

Encouraging Young Researchers

Nurturing and supporting talented students in the Basil Hetzel Institute is a high priority for scientists, clinicians and The Queen Elizabeth Hospital Research Foundation. Each year the Research Foundation supports students by granting scholarships at Honours and Postgraduate levels.

The Queen Elizabeth Hospital's Research Day continues to be seen as the most significant annual event in the research calendar at the hospital, since its inception in 1993 and an integral part of the hospital's vigorous training program. Research Day provides an opportunity for students to present their research, under conditions which are typical of most professional national and international society congress. With this opportunity and experience, it is hoped research quality from the hospital will benefit. Over the years we have watched many great pioneering research approaches, which have resulted in advances in the cause and treatment of diseases. The hospital strives to offer the best opportunities to those students furthering their careers and Research Day plays a part in this. The Queen Elizabeth Hospital Research Foundation is proud to be the sole sponsor of Research Day and ensuring the future of medical research.

Commercialisation

Over the past few years, The Queen Elizabeth Hospital Research Foundation has taken a major step in its commitment to support research. The Research Foundation has developed a strategic process to transfer intellectual property from the hospital to the Research Foundation. Consequently, the Research Foundation has now become the driving force behind the process of commercialising the hospital's research.

To facilitate this relationship between the Research Foundation, researchers and the broader bioscience community the Research Foundation has employed a Director of Commercialisation, Rachel McKay. Rachel works closely with scientists to understand their research and then identify, protect and exploit the intellectual property through licensing, assignments or the creation of new companies as appropriate for commercialisation.

Three companies have already been set up to commercialise innovative research developed at the hospital.

BenEphex Biotechnologies Pty Ltd is a start up company established to commercialise potential cancer therapeutics against EphB4, a member of the Eph family of receptor tyrosine kinases.

During the year, BenEphex Biotechnologies was awarded a grant valued at \$80,000 from Bio Innovation SA to support further proof of concept research. The Research Foundation also contributed a grant of \$40,000 to support the proof of concept research.

BenEphex Biotechnologies has lodged patents in Australia, United States, Europe, Canada, Japan, Singapore, China, Hong Kong, Korea, India, Brazil, Mexico, New Zealand and South Africa protecting this technology.



Atherogen Biotechnology Pty Ltd has been established to commercialise biomarkers, which assist with the identification of patients with a high risk of stroke. Atherogen is currently seeking partners for a drug-diagnostic co-development program.

Atherogen Biotechnology was awarded a \$60,000 COMET grant from AusIndustry to undertake activities such as business planning, market research, website development and patent costs. The Research Foundation also provided Atherogen with a grant of \$16,000 to support these expenses.

Atherogen Biotechnology had two patents entering National Phase in 2006. These were 'Mutation Associated with Strokes' and 'Mutation Associated with Lacunar Strokes'. Bio Innovation SA provided Atherogen with two grants totalling \$26,000 under its Business Development Initiative to support patent costs.

Viswa Biotechnology Pty Ltd is developing a novel therapeutic agent, 12-methytetradecanoic acid (12-MTA) for the treatment of corneal and retinal angiogenesis; conditions affecting an estimated 20 million individuals worldwide. Viswa has in-vitro and in-vivo data confirming the anti-angiogenic properties of 12-MTA, for the treatment of corneal angiogenesis and commenced preclinical safety studies in 2006. Viswa Biotechnology has filed patents in Australia, United States, Canada, Europe and China.

The Research Foundation is in the process of adding as much value as possible to the companies. This includes supporting the ongoing research and putting in place management teams, with relevant industry experience who can drive the companies to success.

Fit2Play

The Queen Elizabeth Hospital Research Foundation has joined with Fit2Play to deliver a behavioural change program to primary schools targeting the prevention of diseases associated with poor dietary behaviour and sedentary lifestyle.

The Fit2Play program is run over one school term and aims to make children eat more fruit and vegetables, do more exercise, watch less TV and drink more water. Approximately 5,000 children participated in the program from 24 South Australian primary schools in 2006.

The Research Foundation received a \$20,000 grant from the Telstra Foundation to be used to review the program. The results of the review showed:

- TV viewing over 2 hours per day was reduced by 44%;
- Participation in above average levels of physical activity increased by 24%;
- Consumption of > 2 servings fruit / day increased by 31%;
- and
- Consumption of > 5 servings veggies / day significantly increased by 72%.

The Research Foundation is proud to support such a worthy initiative that helps to safeguard the health of our future generation.

'Thank You' Day

On 23rd October 2006, the Research Foundation hosted the South Australian 'Thank You' Day celebration. 'Thank You' Day was an opportunity to acknowledge the importance of health and medical research and to say thank you to South Australian researchers.

Approximately 50 people attended the function including our guest speakers Graham Manou (Vice Captain of the Redbacks) and Brett Aitken (Olympic Gold Medalist). Members of Adelaide Survivors Abreast (a group of women who have survived breast cancer) signed a giant 'Thank You' Day Card on behalf of all South Australians.



Support

The Queen Elizabeth Hospital Research Foundation relies on the generosity and commitment of a large volunteer base. Each year over 5,000 volunteer hours are provided to assist the Research Foundation in a variety of tasks.

Also more than 55,000 South Australians, community groups and local businesses, through regular donations, support the Research Foundation. This support is vital to fund the Research Foundation's ongoing research commitments. We express our sincere gratitude to all supporters, both individual and corporate, for their generosity and loyalty to The Queen Elizabeth Hospital Research Foundation.

Credits

The Queen Elizabeth Hospital would like to acknowledge the contribution towards this report from the following:

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