CENTRES for Health Research
ANNUAL REVIEW 2004

Research - Key to Health
Princess Alexandra Hospital Centres for Health Research

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It is a pleasure to present this, 2004 Princess Alexandra Hospital Centres for Health Research, report.

A strong research program is a crucial building block in the development of a significant health care centre of excellence. Once again this year, our research effort has met the challenge, demonstrating creativity and growth in a highly competitive environment.

Through the combined support of the Princess Alexandra Hospital Health Service District and the University of Queensland, the planning for the much needed fit-out of the ground floor of the research building is underway. This will expand our infrastructure to facilitate further growth of our research effort.

I am pleased to report that in 2004 we have reviewed and implemented structures and processes that will increase effectiveness of the contract review and research submission processes. Additional resources will be invested in the Centres for Health Research to take on the responsibility for the management of the Human Research Ethics Committee and research contract processes. Integration of these critical research support functions will increase their efficiency and enhance our attractiveness as a venue for clinical research.

The Hospital has made additional resources available to the members of the Cancer Collaborative Group, which was awarded a 5-year Collaborative Development Grant by the Queensland Cancer Fund. The Princess Alexandra Hospital has enjoyed a long-standing academic relationship with The University of Queensland which is built on a shared commitment to excellence in learning and collaboration. In recent times, a similar atmosphere of collaboration has been developed with Griffith University and the Queensland University of Technology. The Centres for Health Research 2004 research report reflects on the magnificent array of work taking place among our clinical staff and scientists. This report is a testimony to the clinical, educational and scientific advances which are improving the health and well-being of our community.

The research achievements during 2004 are very encouraging, but more importantly they form the foundation for future research endeavours. I remain confident that we can achieve our vision in a state of the art facilities within the best teaching and research environment. I am pleased to share this review of our year with you and to highlight the many talented individuals who commit themselves every day to research and to the provision of quality health care.

Ms Deb Podbury
District Manager
Princess Alexandra Hospital Health Service District
Chairman’s Report

I would like to start my report by paying tribute to Mr. Leo Williams AO who resigned during the year after twenty years as Chairman of the Princess Alexandra Hospital Foundation. The work of the Foundation and particularly of Leo has been crucial to the development of research at the Hospital. We are very much in his debt.

2004 has seen considerable further strengthening of research at Princess Alexandra Hospital. However, I believe that 2005 will be a crucial year for the future of research on the campus.

Over the last several years there has been both the building of a “state of the art” hospital and a progressive development of research capacity on the campus.

The research spans the spectrum from basic science to health services and population health research. The clear focus of the research effort however is on Translational Research. Translational Research is the research that takes basic scientific discoveries through to health or economic benefits on the one hand or translates the most current knowledge into best clinical practice and systems of care on the other. Princess Alexandra Hospital is ideally positioned to undertake such Translational Research given the nature of the Hospital, its existing research strengths, its close interactions with the major research institutions in the State and the developing surrounding environment.

To achieve the full potential it will be necessary to continue to invest for the future. This investment will need to be in people with the necessary vision and skills, in the infrastructure which underpins research and in the physical environment. With respect to the latter, plans for the fit out of the ground floor of the research wing are now well advanced. However, it is clear that this will provide only temporary respite and planning for further developments is needed now. The support of the District Manager who is commissioning a site planning exercise is much appreciated.

We have been very encouraged by the ongoing commitment of the Government to research now including support of clinical research and its review of the Smart State initiatives. The Hospital together with the University of Queensland made a submission highlighting the need for support of Translational Research in Queensland.

It is to be hoped that the newly constituted Health and Medical Research Ministerial Advisory Council will be able to influence Queensland Health to focus and foster its support of research.

I wish to pay tribute to the work of Dr Derek Dickey and the Human Research Ethics Committee, the volume and complexity of their work continues to increase. Their work, of course, is critical to the research enterprise in the Hospital.

Using accepted criteria for research performance there has been continuing improvement. Total funding was estimated at $15.4 million while competitive funds were estimated at $7.8 million. Publications have increased by over 40% between 2000 to 2004. A total of 113 post graduate students are being supervised or co-supervised on campus, 27 doing Masters and 86 doing PhDs. There were 8 Masters’ completions and 17 PhD completions.
“To achieve the full potential it will be necessary to continue to invest for the future....”

Some particular highlights of the year included:

- An NHMRC Program Grant awarded to Professor Ian Fraser and Professor Ranjeny Thomas
- An NHMRC Senior Research Fellowship awarded to Dr. Brian Gabrielli
- A University of Queensland Foundation Research Excellence Award for early career researchers awarded to Dr. Julie Jonsson
- Appointment of Associate Professor Elaine Gardiner to head a new Bone Biology group in the Centre for Diabetes and Endocrine Research
- Selection of a consortium headed by Associate Professor Carmel Hawley to run the Kidney Health Australia Clinical Trials network
- Successful first year of operations of the Cancer Collaborative Group’s QCF funded program

Finally I would like to express my appreciation to all those who have helped to enhance the research performance on the campus but particularly Ms Areti Gavrilidis who has played a crucial role.

Professor Donald Cameron AO
Chair,
Centres for Health Research,
Princess Alexandra Hospital
The year resulted in a number of highlights. Some of the key highlights included the award by the National Health and Medical Research Council of a five year program grant for research into immunological therapies headed by Professor Frazer; a diabetes health research partnership program grant headed by Professor Prins; over $3 million in project grants; the formation of the Australian Kidney Trials Network based at the Princess Alexandra Hospital with Associate Professor Hawley as the inaugural chair; and the establishment of the Centre for Diabetes and Endocrine Research headed by Professor Prins.

Grants Success
National Health and Medical Research Council (NHMRC) Program Grant
Professor Ian Frazer, Professor Ranjeny Thomas, Dr Geoffrey Hill were awarded a program grant of $4,634,965 over 5 years to undertake research into immunological therapies for cancer and autoimmunity.

The group aims to discover mechanisms regulating the immune response, and to exploit this knowledge to define new ways of switching on or off, specific immune responses. The group will seek to develop novel vaccines for chronic infections and autoimmune diseases, and to improve the safety of bone marrow transplantation.

NHMRC Research Partnership: The Diabetes Health Research Program
The Diabetes Partnership Research Program, headed by Professor John Prins, is a collaborative project which brings together several successful research groups from three institutions, the University of Queensland, Queensland University of Technology and the Garvan Institute of Medical Research in a program of clinical and basic research in insulin resistance, T2DM and obesity. The four key aims of the Diabetes Health Research Program are to:

- Raise awareness and understanding of Type 2 Diabetes within the community;
- Design and implement programs aimed at preventing or delaying the onset of Type 2 Diabetes, and to assist in its treatment;
- Continue important fundamental research into Type 2 Diabetes;
- Accelerate the transition and translation of research findings in Type 2 Diabetes research into clinical practice and health care policy.

NHMRC Project Grants
A successful round of NHMRC grants were announced in November 2004. Eight health and medical research project grants, and a Senior Research Fellowship totalling in excess of $3.5 million, have been awarded to investigators based at the Princess Alexandra Hospital.
Australasian Kidney Trials Network

The Princess Alexandra Hospital Renal Research Group received the endorsement of Kidney Health Australia and the Australian and New Zealand Society of Nephrology to act as the co-ordinating centre for the Australasian Kidney Trials Network, which will run investigator-initiated and industry-sponsored multi-centre renal clinical research trials in Australasia.

The primary aim of the Australasian Kidney Trials Network is to facilitate the conduct of scientifically rigorous clinical trials in kidney disease. The need for a clinical trials network in the area of kidney disease was recognized by both the Australian and New Zealand Society of Nephrology Council and Kidney Health Australia. In August 2004 the proposal for the network involving a Brisbane-based Operations Secretariat was endorsed by the Australian and New Zealand Society of Nephrology and Kidney Health Australia to pursue the initiation and running of the network. Since then a group of national leaders in nephrology, representing geographically diverse locations and special interests have cooperated in forming the network. Kidney Health Australia provided initial funding of $50,000 per year for three years which has enabled the network to commence operations.

An Executive Officer has been appointed and the Network is currently in the process of finalising protocols, procedures and web-site issues. The Network is planning to commence at least one major clinical trial in 2005. A major focus of the network will be that of secondary prevention as well as primary prevention in populations at high risk of developing kidney disease.

Establishment of the Centre for Diabetes and Endocrine Research

In 2004, the Centre for Diabetes and Endocrine Research, a School level University of Queensland Centre, was established. Based at the Princess Alexandra Hospital the Centre is part of the School of Medicine, University of Queensland. Its mission is to provide research, from bench to bedside, for the treatment and prevention of endocrine disorders. The Centre brings together research programs in Diabetes, Endocrinology and Metabolism with research interests which include Diabetes (Type I and II), Obesity, Cell Signalling, Liver Metabolism, Bone Research, Pregnancy, Functional Genomics and Endocrine Cancers.
The Centre for Immunology and Cancer Research had its origins in the appointment by the University of Queensland and the Princess Alexandra Hospital of Dr Ian Frazer to the position of Director of Immunology in 1985. The jointly funded position gave the appointee the opportunity, if not necessarily the time, for research. On appointment, Dr Frazer held two NHMRC grants for research on HPV infection and autoimmunity. Scientists funded from the grants were appointed and were housed in temporary accommodation in the tissue typing labs, for which Dr Frazer was responsible, in the basement of the renal dialysis unit. There wasn’t much room: an adjacent bathroom doubled as a photography darkroom, office space was in the corridor, and equipment was shared with the tissue typing team.

The Lions Kidney and Medical Research foundation had constructed a building to provide accommodation for research teams on the campus, and half a floor was in due course fitted out for Dr Frazer’s research team. The Lions also provided funding for a research Fellow to work with Dr Frazer, who set about advertising to fill this position. Laboratory based research on the campus at that time was fairly limited: there were programs in the hospital departments of Diabetes and of Biochemistry and University groups in the Department of Medicine and Surgery. However, there were no other groups interested in vaccines, in molecular virology or in tumor immunology, the areas of Dr Frazer’s interest, and it was clear that for his research group to be competitive he would need to grow a research team of some size. With the assistance of Dr Robert Tindle, appointed to the Lions Research Fellowship (currently Director of the Sakzewski virus research laboratories) and with funding from the Lions, the NHMRC, and from overheads on clinical trials of HPV therapy undertaken for the pharmaceutical industry, Dr Frazer built up a more substantial research team over the next 5 years.

The new research laboratories, completed in 1988, were christened the Lions Human Immunology laboratories. The research team was expanded by the appointment of Dr Germain Fernando, a biochemist with an interest in peptide synthesis (currently Senior Research Fellow in the centre) and Dr Nick Saunders, a pharmacologist with an interest in skin cell biology. Following a sabbatical spent in Cambridge in 1989, Dr Frazer recruited Dr Jian Zhou. His interest in HPV capsid proteins and Dr Frazer’s interest in vaccines led to the observations in 1990 which allowed development of a vaccine to prevent infection with the papillomaviruses responsible for cervical cancer. An ongoing program on vaccines to treat cervical cancer led to a major research collaboration throughout the 1990s with Commonwealth Serum Laboratories (now CSL), and eventually to clinical trials of a potential therapeutic vaccine.

The further expansion of the research programs resulting from the new appointments and the CSL collaboration mandated acquisition of further laboratory space. With money from CSL a floor of the former nurses home (Diamantina House) was converted to laboratories. The appointment of Dr Nigel McMillan increased the number of research...
academic staff to 5 and a decision was made in 1995 to rename the research laboratories as the Centre for Immunology and Cancer Research, a name subsequently formalized by the University upon granting the Centre the status of University Research Centre in 1999. The research strengths of the centre, and the ongoing overheads on research collaborations with industry attracted Dr Ranjeny Thomas, a rheumatologist with a strong interest in immunology recently appointed to the campus, to the centre and she took up the position of Deputy Director in 1997.

The continued research productivity of the centre allowed continued growth and in 1999 the number of staff and students exceeded fifty for the first time. A more formal management structure was required and the single administrative officer position which had supported the research team was expanded by the appointment of a Laboratory Manager. With recognition as a University level research centre came the requirement for a Board to overview the centre's activities, which was appointed and chaired by Professor Peter Brooks.

Plans for reconstruction of the Princess Alexandra Hospital almost halted the centre in its tracks in 2000 as the buildings occupied by the centre laboratories were both scheduled for demolition as part of the site reconstruction and no funding was available for their replacement. However, the centre secured seed funding from the Australian Cancer Research Foundation, and matching funding from the State Government, and sufficient additional funding was secured from the University and from Coridon Pty for lease of laboratory space to allow the fit out for the centre of two floors of a research building for which the hospital had secured funding from the State government at the 11th hour. This further space, together with a strong and developing program in cancer research attracted Dr Brian Gabrielli, and subsequently Professor Tom Gonda.

The centre in 2005 comprises approximately 100 staff and students working in two programs.

- The Cancer Program, with groups lead by Professor Gonda, Associate Prof Saunders, Dr Gabrielli, and Dr McMillan, has a major focus on skin developmental biology and on translational research in head and neck cancer and leukaemia;

- The Immunology program, with groups lead by Professor Frazer and Professor Thomas, to be joined by Professor Matt Brown in 2005, has basic and translational research programs in epithelial tumour immunology, immunogenetics, dendritic cell biology and autoimmune disease (diabetes, rheumatoid arthritis, inflammatory joint disease).

The Centre for Immunology and Cancer Research also provides incubator laboratory space for two biotechnology companies, Coridon and Dendright, as spin offs from intellectual property developed by centre staff.
The Lions Medical Research Foundation Fellowships

The Lions Medical Research Foundation - committed to funding medical research for the betterment of all mankind.

The Lions Medical Research Foundation has supported Medical Research at the Princess Alexandra Hospital since 1966. This support has provided funds for projects, for equipment and for salaries. It has been of particular benefit in providing “seed funding” for many researchers who have gone on to establish substantial research programs. Some examples of researchers who have benefited from the generosity of the Lions Foundation are Professor Ian Frazer who has developed a vaccine against cervical cancer – a world first; Professor Michael Roberts who has worked extensively in investigating pharmacological strategies that may improve patient outcomes; Dr Nick Saunders who heads a group with the Centre for Immunology and Cancer Research, investigating the cause and treatment of skin and head and neck cancer, Professor Ranjeny Thomas who has made important discoveries in Rheumatoid arthritis and diabetes and Professor John Prins who has established a major research program in Diabetes.

The Foundation in 2004 continued to provide crucial funding for many young researchers at the Princess Alexandra Hospital through the Lions Research Fellowship scheme.

The current Lions Senior Medical Research Fellow recipients based at the Princess Alexandra Hospital are: Dr Julie Jonsson - researching the role of renin – angiotensin system in hepatic fibrosis; Dr Graham Leggatt - researching into a new generation of vaccines; and Dr Jon Whitehead - researching into insulin action, diabetes and obesity.

Obesity, Angiotensin and Hepatic Fibrosis

Dr Julie Jonsson was awarded a Lions Senior Medical Research Fellowship in August 2003. Following completion of her BSc (Hons) and PhD at the University of Adelaide in 1994, she came to Brisbane and joined Elizabeth Powell and Andrew Clouston to establish a liver research group examining mechanisms of immune tolerance following liver transplantation.

Chronic liver disease can be a very slowly progressing condition, and while some patients may develop cirrhosis within 10 years, others may take 30-40 years. While liver recipients generally do very well after transplantation, the increasing shortage of donor livers has made it vital to find treatments to delay the progression of liver disease, thereby preventing the need for a patient to undergo liver transplantation.

Thus, the focus of the Liver Group’s research has evolved to explore mechanisms of hepatic fibrosis progression. Obesity is increasing at an alarming rate. More than 40% of Australians are overweight and more than 20% are obese. Excess body weight can cause steatosis (fatty liver), which is known as non-alcoholic fatty liver disease. While steatosis alone may be benign, it can lead to inflammation, fibrosis and cirrhosis.

Hepatic steatosis is increasingly recognized as a co-factor influencing the presence and progression of fibrosis in patients with liver disease from other causes. For example, in patients with chronic hepatitis C or hemochromatosis, higher grades of steatosis are associated with...
more advanced stages of fibrosis and worsening of steatosis is an independent factor associated with progression of fibrosis. Delineation of the mechanisms by which steatosis contributes to progressive fibrosis may result in new therapeutic options.

Another focus of the research is investigation of the role of the renin angiotensin system in hepatic fibrosis. The renin angiotensin system is a hormone system that was first known for its role in blood pressure control. Angiotensin II is the principle effector molecule for this system, and this is a peptide which is first made as a large protein called Angiotensinogen. There is a genetic polymorphism in the Angiotensinogen gene which affects how much Angiotensinogen protein is produced, so that people can be classified as low, intermediate or high producers. The Liver Group has shown that in patients with non-alcoholic fatty liver disease and in patients with chronic hepatitis C, high producers of Angiotensinogen have more severe fibrosis. It is therefore important to determine how Angiotensin II might be acting to increase hepatic fibrosis progression.

This research would not be possible without the generous support of the Lions Medical Research Foundation. The tremendous work by the Lions community in aid of medical research is greatly and sincerely appreciated.

Second generation vaccines against viruses and tumours: Optimising the “killer” T lymphocyte response

Dr Graham Leggatt was born and raised in Brisbane where he completed a Bachelor of Science with honours at the University of Queensland in 1989. He undertook his Ph.D studies on the immune response against parasitic worms (hydatid disease) at the Queensland Institute of Medical Research, receiving his doctorate in 1993. Following the path of many young Australian scientists Dr Leggatt travelled overseas to the National Institutes of Health in Washington D.C. (USA) to begin a postdoctoral position studying killer cell immune responses to the AIDS virus in animal models. After almost four years abroad, he returned to the Princess Alexandra hospital in Brisbane to continue studies on the role of killer cells in viral infection (and cancer). His current position as a Lions Senior Research Fellow in the laboratory of Professor Ian Frazer involves vaccine studies on human papillomavirus, a virus associated with the development of cervical cancer.

The most common method to fight infectious diseases or cancer is to switch on the immune system through vaccination. In the past, the majority of successful vaccines have relied on one arm of the immune system – the production of antibodies. Unfortunately, for many modern diseases and cancers, the generation of antibodies through vaccination is insufficient requiring new approaches to fighting these diseases. Cytotoxic T lymphocytes (“killer” T cells) will play a crucial role in the next generation of vaccines given their ability to quickly target virally-infected or cancerous cells for destruction. Studies at the Centre for Immunology and Cancer Research over the last year have focused on understanding the interaction between cytotoxic T lymphocytes and tumour cells using animal models, with the ultimate goal of applying this knowledge to vaccines against human disease.

The three year Lions Senior Research Fellowship provides a vital bridge between early career funding and funding as an established researcher. The fellowship facilitates this transition in an otherwise difficult funding period in any young scientist's career.

It is a great honour for me to represent the Lions Medical Research foundation and I hope that my research continues the already successful alliance between Fellows and the Lions Club.
Fatbuster drug targets obesity
After completing his PhD at the University of Liverpool (UK) in 1994, Dr Whitehead moved to the University of Cambridge (UK), where he began work in the area of insulin signalling and insulin resistance. In 1999 he secured an International Travelling Fellowship from the Wellcome Trust, taking up a position at the Institute for Molecular Bioscience at the University of Queensland. In 2002 he moved to the Diabetes & Obesity Research Program at the Garvan Institute of Medical Research in Sydney.

In November 2002 he took up a position as a Lions Senior Medical Research Fellow in the Centre for Diabetes & Endocrine Research, formerly the Department for Diabetes and Endocrinology, and established the Cell Signalling Group.

The major interest of the Cell Signalling Group is the coordination of insulin action and insulin sensitivity. Insulin’s primary function is to promote the uptake and storage of nutrients, in muscle, liver and fat, following a meal. An increasing number of people are becoming “insulin resistant” as their tissues are unable to respond appropriately to insulin. Insulin resistance is associated with a variety of common metabolic disorders including obesity and Type 2 Diabetes. Medications to combat insulin resistance and improve insulin sensitivity are available, however these often have limited efficacy. By understanding the mechanisms that underpin insulin action in healthy individuals, and identifying the defects that promote insulin resistance the group hope to identify new targets for potential therapeutic intervention.

One exciting avenue of research has allowed the group to identify a new player in insulin action. Although the protein identified has been studied by scientists for over 30 years, the work of the Cell Signalling Group is the first to suggest that it may be involved in insulin action. Moreover, the group’s recent data suggest that this protein may play an important role in the development of fat cells, called adipocytes. Adipocytes are the major cell-type found in fat tissue and an increase in adipocyte size and number underpins the accumulation of fat associated with obesity.

The group are currently investigating whether they can block the development of adipocytes by pharmacological inhibition of this protein. This work may allow them to validate this protein as a new target for novel therapeutic strategies aimed at reducing obesity and Type 2 Diabetes. The commercial potential of this work was recognised in the recent Uniqest Trailblazer competition and is protected by a provisional patent. Trailblazer is an annual innovation competition run by Uniqest, to help staff and students raise their entrepreneurial ideas or smart research off the ground.

Since joining the Centre, and in collaboration with Professor John Prins, Associate Professor Graeme Macdonald and Dr Ayanthi Richards, a new research program dedicated to the study of a key insulin-sensitizing molecule, called adiponectin has been established.

Other members of the Cell Signalling Group are taking a molecular approach to elaborate how key signalling molecules, including IRS-1 and Akt, function in healthy insulin-sensitive cells and how these functions become compromised in states of insulin resistance and Type 2 Diabetes.

The group would like to acknowledge the organisations that currently provide funding, without which this research would not be possible. These include the Lions Medical Research Foundation, Diabetes Australia, the George Weaber Foundation Trust, the Princess Alexandra Hospital Foundation and the National Health and Medical Research Council.
New Colleagues join Princess Alexandra Hospital

Associate Professor Edith Gardiner
Centre for Diabetes and Endocrine Research

Associate Professor Edith Gardiner moved to Brisbane to join the Centre for Diabetes and Endocrine Research in 2004. She is the head of the newly established Bone Research Group. The Group aims to gain greater understanding of the osteoblastic bone forming cell and to identify bone formation pathways that may become targets for novel osteoporosis therapies. The major focus is on the cell biology of osteoblastic bone formation and more specifically, on the detection and characterisation of novel molecular pathways that control the production of mineralised bone matrix. Major research topics include the regulation of osteoblast differentiation and function by the Wnt developmental pathway and associated transcriptional and morphological changes, and the hypothalamic regulation of bone formation by leptin and neuropeptide Y receptors. The overarching theme of the research studies is the mechanisms that control differentiation of and cross-talk between the osteoblastic and adipocytic cell lineages, which share a common progenitor cell type. The research utilises genetic and surgical animal models with high bone formation activity, transcript profiling and a variety of other molecular, cellular, histological and histomorphometric approaches.

Associate Professor Gardiner obtained her PhD in Genetics in 1988 from Yale University School of Medicine, USA. She undertook a National Institutes of Health Postdoctoral Fellowship to study oncogene function using genetically modified mouse models in the Biology Department at Yale University. In 1993 she joined the Bone and Mineral Research Program at the Garvan Institute of Medical Research in Sydney, and in 1997 was appointed as Head of the Bone Gene Regulation Group. In 1998 she was also appointed Conjoint Senior Lecturer in the Faculty of Medicine at the University of New South Wales.

Associate Professor Graeme Macdonald
Director, Gastroenterology and Hepatology Department

Associate Professor Graeme Macdonald was appointed as Director, Department of Gastroenterology and Hepatology, Princess Alexandra Hospital. He has a joint appointment as an Associate Professor with the University of Queensland. He heads the Liver Metabolism Group at the Centre for Diabetes and Endocrine Research. The major focus of the Group is on hepatic insulin resistance and the cross talk between fat, muscle and liver tissue, including the action of adipokines such as Adiponectin. The group is currently studying the control of the production and secretion of Adiponectin, including post-translational modifications of the protein, in addition to the mechanism of Adiponectin action on hepatocytes. Other projects include the effects of insulin resistance on hepatic stellate cells, the cells responsible for the production of collagen and development of cirrhosis in response to liver injury; mechanisms of hepatic carcinogenesis in relation to liver injury; and clinical projects examining symptom profiles and quality of life in liver disease.

Graeme obtained his Medical Degree from the University of Queensland in 1984 with first class honours and received the University Medal for his undergraduate studies. Graeme specialised in Gastroenterology at the
Princess Alexandra Hospital and was awarded his FRACP in 1993. Dr Macdonald then undertook a Hepatology Fellowship at the University of Michigan Medical Centre in Ann Arbor, Michigan, USA. On completion of this he was appointed to the Faculty of the University of Michigan as a Transplant Hepatologist where he commenced his PhD studies into hepatic carcinogenesis. He returned to Australia in 1996 and completed his PhD with Dr Barbara Leggatt before taking up a position as a Senior Lecturer in the Department of Medicine of the University of Queensland.

Dr Sandro Porceddu
Consultant Radiation Oncologist

Dr Porceddu was appointed as Consultant Radiation Oncologist at the Princess Alexandra Hospital and Senior Lecturer at the University of Queensland, School of Medicine in 2004. His main clinical and research interest is in the field of Head and Neck Cancer. Prior to joining the Hospital Dr Porceddu worked in the head and neck unit at the Peter MacCallum Cancer Centre in Melbourne where research work was being undertaken combining novel chemotherapy agents and radiation therapy for the treatment of advanced head and neck cancer, and the use of 3D conformal and intensity modulated radiotherapy. His publications include work on the utility of positron emission tomography, chemotherapy and conformal radiotherapy in head and neck cancer.

Dr Sandro is on a number of committees including the Scientific Committee of the Australian and New Zealand Head and Neck Society. He is the convener of the forthcoming Clinical Oncological Society of Australia Meeting to be held in Brisbane.

He is the principal investigator of several head and neck trials including a Phase III multicentre Trans-Tasman Radiation Oncology Group trial examining the use of post-operative chemo-radiotherapy in advanced head and neck skin cancer.

His current work at the Princess Alexandra Hospital includes developing conformal parotid sparing radiotherapy techniques and principal investigator of an ongoing collaborative trial between the Princess Alexandra Hospital, Mater QRI and Townsville Radiation Oncology Centre looking at hypofractionated radiotherapy for the palliation of unresectable head and neck cancer.

Dr Ray Steptoe
Research Fellow, Dendritic Cell Biology Program, Centre for Immunology and Cancer Research.

Dr Ray Steptoe was appointed Research Fellow in the Dendritic Cell Biology Program, Centre for Immunology and Cancer Research. Dr Steptoe completed his PhD studies at the TVW Telethon Institute for Child Health Research in Perth prior to undertaking a post-doctoral fellowship at the Thomas E Starzl Transplantation Institute in Pittsburgh. He researched the role of dendritic cells in the spontaneous acceptance of liver transplants. Upon returning to Australia, he spent six years at The Walter and Eliza Hall Institute in Melbourne with Professor Len Harrison where he developed novel approaches to immunotherapy of Type 1 Diabetes.

Dr Steptoe’s research is focused on the role dendritic cells play in maintaining tolerance in vivo, how this may fail in autoimmune disease and how DC can be applied to restore tolerance in autoimmune-prone individuals. Using a transgenic mouse system in which a specific antigen is expressed in dendritic cells in conjunction with T cells specific for that antigen, we are investigating the processes and signals that lead to induction of peripheral tolerance by dendritic cells. Using this system we have demonstrated that, in the absence of pathogen-associated signals eg signals through TOLL receptors, ‘resting’ dendritic cells inactivate mature CD4+ and CD8+ T cells in the periphery. We have also shown that induction of ‘peripheral T cell tolerance’ by resting dendritic cells inhibits the development of experimental or spontaneous autoimmune diseases. These studies will provide novel and important information on how dendritic cells induce tolerance and how they could be best applied as a therapeutic.
One of the avenues through which the Princess Alexandra Hospital supports clinical research is through a fellowship scheme that was instituted in 1999. A total of eighteen clinical research fellowships have been awarded since the scheme was first introduced.

The aim of the scheme is to allow registrars in clinical training programs for recognised specialties to undertake a year of supervised clinical research at the Princess Alexandra Hospital.

Dr S Moir and Dr S Olson were two of the recipients in 2004.

Dr Stuart Moir

During Dr Moir’s twelve months as a research fellow of the Princess Alexandra Hospital in 2004 he was able to continue his research looking at the use of contrast echocardiography for diagnosis of heart disease, which he commenced in 2003. Dr Moir successfully completed his confirmation of candidature for his PhD studies through the University of Queensland. He had three papers accepted for presentation in peer reviewed journals and presented abstracts relating to his research at the scientific sessions of the Cardiac Society of Australia and New Zealand, American Society of Echocardiography, European Society of Cardiology and the American Heart Association. His project involved assessing the incremental benefit of adding intravenous contrast (specialized preparation of gas filled micro-bubbles) to echocardiograms for diagnosis of heart disease. In particular they were investigating whether it enhances the accuracy of stress echocardiography for the diagnosis of coronary artery disease, as well as enabling quantification of blood flow within the myocardium, to diagnose CAD as well as in non coronary heart disease eg diabetic cardiomyopathy.

Dr Sarah Olson

Clinically neurosurgeons work closely with endocrinologists in the management particularly of pituitary disorders. Dr Olson’s research year has been the formulation of a project involving radiolabelling of hypothalamic releasing hormones. It is hypothesized that these radiolabelled hormones could be used as a therapy for pituitary tumours and other tumours expressing hormone receptors.

In 2004 they radiolabelled GHRH as a potential therapy for acromegaly. The invitro and invivo work is in progress with the assistance of the Dr Louise Hutley, Felicity Newell, Professor Roberts, Dr Grice, Professor Waters, and Chief scientist Andrew Katsifis (AINSE) at Lucas Heights reactor in NSW.

Radiolabelled GHRH could also potentially be used as a treatment for other systemic malignancies (prostate, breast, colon) which are known to express the GHRH receptor. It is expected that the background work due to be completed in early 2005 will lead to experimentation with these tumours as satellite projects.

This work will be ongoing over the next few years and is currently submitted as a Masters of Philosophy.

In 2005 Dr Olson will complete her training in neurosurgery and will complete her fellowship in pituitary and epilepsy surgery as subspecialty training.

Dr Olson hopes to continue to undertake collaborative laboratory based research in addition to a subspecialised neurosurgical practice.
Since the establishment of the Princess Alexandra Hospital Cancer Collaborative Group in 2002 and the $2 Million collaborative development grant from the Queensland Cancer Fund substantial progress in basic and translational research activity has been achieved by a dedicated dynamic group of clinicians and researchers.

The development grant has:
- Facilitated and accelerated the pace of cancer research activity on the campus;
- Created opportunities for additional funding through external grants and district funds;
- Further enhanced collaborations between the basic scientists and clinicians including surgeons.

Tremendous momentum continued throughout 2004 which resulted in the formation of new collaborations with oncologists, surgeons, and other clinicians and further enhancement of existing collaborations. Significant research progress has been made by the Cancer Collaborative Group team in basic, translational and clinical research as summarised below and detailed in the report. The extent of the research activity is reported in the Centres for Health Research Review 2004 which will be available shortly.

**Research Program**

**Gene Profiling:** A DNA Microarray Facility is now fully operational with additional staff appointments made during the year. The group have been two ongoing projects: gene expression profiling in B-Chronic Lymphocytic Leukemia and osteosarcomas for predicting clinical outcomes.

**Clinical Research:** Thirty six submissions were made to the Princess Alexandra Hospital Human Research Ethics Committee the majority being clinical trials of which four were investigator initiated. Some of these trials are linked to, or in some cases based upon, correlative laboratory studies led by Cancer Collaborative Group members eg Minimal Residual Disease in Acute Myeloid Leukaemia.

**Database Project:** The preferred model is the “hub and spoke”. The group has been developing the minimum dataset for all cancers, and on disease site-specific datasets for both solid and haematological malignancies as the starting point.

**Training and Mentoring Young Investigators**

Three PhD scholarships were awarded in 2004 for 2005. The following are the projects that will be undertaken:
- Gender Differences in Lay Caregiver Needs, Burden and Support While Caring for a Patient with Recurrent Cancer;
- The Molecular Mechanisms of Tumour Immunotherapy;
- Prediction of Hearing Outcomes in Acoustic Neuroma Surgery: Correlation between Audiological Results, Magnetic Resonance Imaging, Surgical Findings, and Histopathological Appearance.
Dr Alex Guminski, who joined the Princess Alexandra Hospital Medical Oncology Department in August 2004 from the United Kingdom, was awarded a Practitioner Fellowship. Dr Guminski's current research is on valproic acid and head and neck cancers working in close collaboration with the basic scientists within the Gene Profiling Unit.

Translating Research Outcomes

Website: Information has been developed for the Princess Alexandra Hospital research website (under the Cancer Collaborative Group http://www.health.qld.gov.au/pahospital/ccg/default.asp)

Cochrane Reviews: Drs B Hickey and M Lehman have submitted a protocol titled ‘Sequencing of Chemotherapy and radiation therapy for early breast cancer’

Ongoing Education: A number of professional and public education activities have been established including bimonthly Cancer Collaborative Group seminars and presentations at the Annual Princess Alexandra Hospital week.

Publications: In 2004 the Cancer Collaborative Group had over fifty publications. These included peer reviewed articles, published abstracts and book chapters.

New Appointments: There were a number of new appointments during the year including staff specialists, scientists, data managers, and support staff. Three key new appointments included Professor Tom Gonda from South Australia, Dr Alex Guminski from the United Kingdom and Dr Sandro Porceddu from Victoria.

Professor Tom Gonda, Head of Molecular Oncogenes Group, Centre for Immunology and Cancer Research.

Professor Gonda's is a well esteemed researcher, having worked in a number of outstanding cancer research teams. Professor Gonda's main area of research is in Oncogenes. He is establishing a productive laboratory to pursue work in areas including leukaemia and breast cancer. His research complements the work of a number of research groups who are part of the Princess Alexandra Hospital Cancer Collaborative Group.

Dr Alex Guminski, Practitioner Fellow, Medical Oncology Group.

Dr. Guminski started working at the Princess Alexandra Hospital in August 2004. Prior to his appointment he was working in the Medical Oncology Unit, Churchill Hospital, Oxford, UK. Dr. Guminski completed his PhD in June 2003. Dr. Guminski’s main area of research will be in investigating the efficacy of histone deacetylase inhibitors (valproate) in squamous cell carcinomas arising from the upper aero-digestive tract.

Dr Sandro Porceddu, Consultant Radiation Oncologist, Princess Alexandra Hospital and Senior Lecturer, University of Queensland, School of Medicine.

His main clinical and research interest is in the field of Head and Neck Cancer. Prior to arriving he had worked in the Head and Neck Unit at the Peter MacCallum Cancer Centre where research work was being undertaken combining novel chemotherapy agents and radiation therapy for the treatment of advanced head and neck cancer, and the use of 3D conformal and intensity modulated radiotherapy.

New initiatives: A number of new initiatives were introduced during the year including:

The establishment of a Surgical Oncology Group was developed to aid in the rationalisation of the management of cancer within the State and region with Associate Professor M Smithers as the co-ordinator.

Funds were specifically allocated for cancer research to be undertaken by surgeons. Ten expressions of interest were received which will be evaluated in February 2005.
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The Committee meets monthly to review research including new studies, modifications to approved protocols, correspondence and adverse events. Review by the Committee is to ensure that participants (patients and staff) are not subject to undue risk, and that they are aware of any potential harm resulting from research participation.

The focus and achievements during the year included:

- Strengthening communication with the Clinical Trial Coordinators through various channels including the bi-monthly. Clinical Trial Coordinators’ meetings;
- Launching of the ethics website http://www.health.qld.gov.au/pahospital/research/ethics/ as a tool to communicate and facilitate the process of submissions and approvals;
- Working closely with the research community to streamline internal processes and improve the service.
- Working closely with key stakeholders in the development and implementation of the Queensland Health Research Management Policy and Guidelines to formalise the standard operating procedures for Human Research Ethics Committees within Queensland;
- The number of new submissions and modifications continued to increase. The number of new submissions increased from 169 per annum to 230 per annum between 1999 and 2004. The number of modifications doubled in the last five years.

The chairman is also a member of the Queensland Health Research Ethics Committee which reviews research studies which are conducted in multiple Queensland Health facilities, thus assisting communication with other committees and the central health office. This committee facilitates more rapid review of multisite studies.

Apart from the Chairman and Secretary, all members act in an honorary capacity.
The purpose of the Princess Alexandra Hospital Research Committee is to foster research within the Princess Alexandra Hospital Health Service District. The Committee continues to promote and facilitate excellence in research on the campus and also provides advice on:

- Strategic and operational policy on research direction, management and reporting;
- The development and management of allocation protocols to ensure that research infrastructure on the campus is used appropriately;
- Process for effective management of research infrastructure including the Biological Research Facility;
- The promotion of specific initiatives to facilitate research on this campus.

Chair
**Professor Donald Cameron**, AO, Chair, Centres for Health Research, Princess Alexandra Hospital.

Members
**Professor Ian Frazer**, Professor of Medicine and Director, Centre for Immunology and Cancer Research, Princess Alexandra Hospital.

**Professor David C. Gotley**, Professor of Surgery, University of Queensland

**Professor Thomas Marwick**, Professor of Medicine, University of Queensland

**Professor John Prins**, Professor of Medicine and Director of Diabetes and Endocrinology

**Professor Michael Roberts**, Professor of Medicine and Director of UQ Therapeutics Group

**Dr Devinder Gill**, Director of Clinical Haematology

**A/Professor, Darrell Crawford**, Professor of Medicine, Director of Gastroenterology and Hepatology

**Dr Brian Gabrielli**, Centre for Immunology and Cancer Research

**Dr Sarah Winch**, Nursing Education Research Unit

**Ms Ingrid Hickman**, (resigned October 2004), Diabetes and Endocrinology Department

**Ms Meaghan Walsh**, (commenced October 2004), Diabetes and Endocrinology Department

**Ms Anne-Louise Bulloch**, School of Medicine, University of Queensland

**Mr Phil Berquier**, School of Medicine, University of Queensland

**Mr David Brown-Rothwell**, Audiology, Allied Health

**Professor Ian Jones**, School of Medicine, University of Queensland

**Professor Kenneth Donald**, Professor and Head Graduate School of Medicine, University of Queensland.

Secretariat
**Ms Areti Gavrilidis**, Business Manager, Centres for Health Research

**Ms Diane Allwood**, Executive Support Officer, Centres for Health Research
The Allied Health Research Committee

The “Allied Health” group comprises of a diverse group of health professionals providing diagnostic, rehabilitative and clinical support to the hospital and community through specialised services.

Committee Members

Ms Delena Amsters  
(Research Officer, Spinal Outreach Team)

Ms Annette Broome  
(Acting Director, Psychology)

Mr David Brown-Rothwell  
(Conjoint research position in Audiology PAH/UQ)

Ms Julie Connell (Director, Clinical Support Services)

Dr Petrea Cornwell  
(Conjoint research position in Speech Pathology PAH/UQ)

Ms Sue Cumming  
(Director, Social Work)

Dr Jenny Fleming  
(Conjoint research position in Occupational Therapy PAH/UQ)

Ms Janelle Griffin  
(Senior Occupational Therapist)

Mr Terrence Haines  
(Conjoint research position in Physiotherapy PAH/UQ)

Ms Annabel Hickey  
(Manager, Clinical Services Evaluation Unit)

Ms Melissa Kendall  
(Research Officer, Transitional Rehabilitation Program & Acquired Brain Injury Outreach Service)

Dr Jennifer Lethlean  
(Chair, PAH Allied Health Research Committee)

Mr Shaun McKay  
(Prosthetics & Orthotics)

Dr Sirous Momenzadeh  
(Project Coordinator – Mental Health Outcome Measurement, Queensland Transcultural Mental Health Centre, PAH)

Ms Marianne Schubert  
(Asst Director, Physiotherapy)

Ms Angela Vivanti  
(Research & Development Dietitian)

This report outlines the major achievements of the Allied Health Research Committee for 2004 under each of its four main aims.

The Allied Health Research Committee aims:

To facilitate, encourage and support high quality research in allied health which will be nationally and internationally recognised and contribute significantly to evidence based practice.

- Regular Allied Health Research Committee (AHRC) meetings with a wide range of hospital departmental, divisional and community representation;
- Format change of the AHRC meetings from an administrative/information sharing focus to a problem solving/networking one;
- Development of an AHRC Business Plan to provide strategic direction for allied health research.
- Coordination of a monthly Allied Health Research and Quality Forum;
- Encouragement of allied health postgraduate students to join the PAH Postgraduate Research Committee.
To facilitate, coordinate and advocate for the dedicated allocation of resources to research in allied health.

- Part-time funding of the AHRC chair position by the Division of Clinical Support Services;
- Further progression of the strategic directions for allied health research identified in the Allied Health Research Project Report: Model for an Allied Health Research Centre (Kuys, 2003);
- Development of a coordinated response to projected research space requirements for allied health submitted to the Centres for Health Research;
- Participation in the recruitment of the Cancer Collaborative Group post-graduate research scholarships.

To increase the number of research proposals, publications, presentations and successful grant applications in allied health.

- Ongoing notification and dissemination of available research funding via e-mail and regular research meetings;
- Provision of support and information for smaller departments regarding the development of research proposals;
- There have been a significant number of research proposals, publications, presentations and grants awarded to the allied health group. Refer to the individual area reports for details.

To increase the profile of allied health involvement in research at Princess Alexandra Hospital and the community.

- Improved awareness of research activities between allied health disciplines;
- Ongoing development of collaborative research projects;
- Ongoing representation by David Brown-Rothwell on the Princess Alexandra Hospital Research Committee.

Next year promises to mark an important stage in the ongoing development of allied health research at Princess Alexandra Hospital with a proposal for the appointment of a professorial chairperson in allied health. The Allied Health Research Committee looks forward to continuing to contribute to collaborative research endeavors at Princess Alexandra Hospital particularly in the national health priority areas.
The Princess Alexandra Hospital Foundation

The Princess Alexandra Hospital Foundation focussed on several key areas of fundraising in 2004 as well as ensuring that the funds raised were distributed to areas of research that would truly make a difference.

Traditionally the most reliable source of donations has been past patients of the Princess Alexandra Hospital. Due to a tightening of Queensland Health privacy policy, however, the Foundation have been prevented from contacting past patients since December 2003. The Foundation is now pleased to report that at the end of 2004 Queensland foundations received approval from the Minister for Health to work with their respective hospitals to place a patient permission box on registration forms that patients can tick to allow the Foundation to contact them. It is expected that this significant donation source will be reinstated and enhanced from April 2005.

A strong push was made in 2004 to increase bequest revenue. This area has become highly competitive within the charity sector and so the Foundation introduced a Free Will Service. The service will be promoted annually. The Foundation received 128 requests for free wills or appropriate will wording during 2004, a significant increase on previous years.

Events in 2004 included the 20th Birthday Gala Dinner which saw the role of the Foundation and deeds of the research teams communicated to a high level Brisbane gathering who enjoyed a magnificent evening of fine fare and entertainment. The event raised $48,000. Additionally, in partnership with the Queensland Hotels Association and Mater Hospital Trust, the Foundation initiated Hotel Care Week. The event raised $80,000 and will be grown further in 2005. The Foundation was also fortunate enough to be the beneficiary of the Cool Night Classic to the tune of $12,000.

A further highlight was the establishment of a partnership with Bendigo Bank that will see the release of the credit card in 2005 from which the Foundation will receive a small share of a hopefully large turnover.

A sad event in 2004 was the Princess Alexandra Hospital Foundation Chairman of two decades, Mr Leo Williams, stepping down. Largely through Leo’s personal commitment the Foundation has contributed in excess of $18 million to medical research at the Princess Alexandra Hospital. Also stepping down was Mr David Usasz, who provided a decade of dedicated service. Their contributions will be missed.

Members of the Foundation Board appointed by the Governor in Council are drawn from the business and medical communities.

Chair
Leo G. Williams AO,
RFD, BA, LLB, Consultant, Freehills
-Solicitors (resigned September 2004)

Deputy Chair
Anthony N. Ford
ASIA Retired

Members
Kenneth Donald
MBBS, PhD, FRCPA, MRAC Path.,
FRACMA, FRACS. Professor and Head
Graduate School of Medicine,
University of Queensland.

Lyn Hamill
B.Pharm (Vic), MBA, Chair Princess
Alexandra District Health Council,
Princess Alexandra Hospital

G. Roderick McLeod
AO, RFD, ED, MBBS, FRCS (Ed.),
FRCS (Eng.), FRACS. Chair, Division
of Surgery, Princess Alexandra
Hospital.

David Theile
AO, MBBS (Hon.) (Qld), MS (Qld),
FRACS, FRCS (Eng.), FRCS (Ed.)
(Hon.), FANZCA (Hon.), FAMS
(Hon.). Senior Visiting Surgeon,
Princess Alexandra Hospital.

David Usasz
ACA, AHKS, ASCPA, B Com. (UQ).
Partner, PricewaterhouseCoopers -
Chartered Accountants. (resigned
September 2004)

Donald P. Cameron
AO, MD, FRACP. Chair, Centres for
Health Research, Princess Alexandra
Hospital.

Michael T Wille
BA (Hons). Bowling Green University,
Yale University. Company Director.

Simon Lockyer
BSc (Griffith Uni) Communication
Director, McCann Erickson
Advertising.
Karen Taylor, recipient of Indigenous Research Scholarship jointly awarded by Princess Alexandra Hospital Foundation (PAHF) and Queensland Institute of Medical Research (QIMR), was born in Brisbane and is a proud mother of a beautiful 8 year old daughter Larah Jayne. Karen has degrees in horticulture, applied science and education. After returning from a two year overseas adventure and again trying various satisfying employment opportunities Karen realised that she wanted to make a greater difference towards improving the quality of human life.

Karen commenced a master’s degree through the School of Life Sciences, Queensland University of Technology (QUT) - Two Hour, In Labour, Detection Test for Group B Streptococcus. In this study, Karen aims to develop and evaluate a rapid polymerase chain reaction assay for the detection of Group B Streptococcus also known as Streptococcus agalactiae, in pregnant women. In this study Karen will establish the prevalence of Group B Streptococcus amongst women of childbearing age who live in the Brisbane region. She also hopes to document the Group B Streptococcus colonisation rates of both Indigenous and non Indigenous populations.

Group B Streptococcus causes neonatal morbidity and mortality, miscarriage, stillbirth, and preterm delivery in pregnant women, disease in children as well as intrapartum endometritis and other secondary infections in the immunocompromised adult and the elderly. The rapid polymerase chain reaction test will enable mothers to be tested for Group B Streptococcus during labour with results available within 2 hours therefore significantly decreasing the incidence of neonatal disease. This rapid polymerase chain reaction test would assist clinicians in diagnosis and be available to all mothers who deliver term or preterm.

Karen’s principal supervisor is Dr Christine Knox (QUT); other supervisors include Dr Sri Siprakash (QIMR), Ms Janelle Stirling (QIMR), and Dr Wendy Munckhof (PAH). While the PAH and QIMR each provides 50% of Karen’s scholarship, a top up scholarship was also awarded by the Australian Centre for International and Tropical Health and Nutrition. The Cooperative Research Centre for Aboriginal Health (CRC) has contributed funding for the laboratory development of the test. Karen’s principal research interests and those of Dr Christine Knox are the prevention of adverse pregnancy outcomes in both natural and assisted reproductive technology pregnancies. In the future Karen hopes to develop a maternal test which can be used as an indicator for the detection of bacterial systemic infection in neonates. She also hopes to investigate and develop further testing methods for GBS and other life threatening neonatal pathogens. Karen has gained a scholarship through the CRC to undertake a PhD degree and continue her work investigating neonatal infectious diseases and adverse pregnancy outcomes.

Currently, Karen’s objectives are to work in the areas of Adverse Pregnancy Outcomes and Human Physiology and Disease; to further her knowledge of and promote Aboriginal Health; complete her Master of Applied Science by Research through QUT; and to obtain a PhD qualification.
The Postgraduate Student Committee

The Princess Alexandra Hospital Postgraduate Student Committee combined with the Southern Clinical Postgraduate Student Association in June of 2004 to represent 130 postgraduate research students located at the Princess Alexandra Hospital, Mater Medical Research Institute and National Research Centre for Environmental Toxicology.

Mission Statement
The association will act as a resource to promote and provide a supportive environment for the postgraduate students within the School of Medicine, Southern Clinical Division.

Goals
To regularly bring together students and supervisors from different fields and campuses in a social and learning environment.
To reduce the feeling of isolation when separated from the main university campus.
To promote collaboration within the student body.
To act as a liaison between the student body and administration.
To increase general awareness of the student body.
To represent the student body at other committee meetings.

Achievements
The following was achieved during the year:
- A working committee comprising of students from Princess Alexandra Hospital, Mater Medical Research Institute and National Research Centre for Environmental Toxicology;
- Funding from the University of Queensland Student Union;
- Monthly seminar series - 6 invited speakers from the University of Queensland student support services, Princess Alexandra Hospital and School of Medicine staff.

The working committee organised seminars on a range of topics including time management, the supervisory relationship, writing skills and the confirmation process. The presence of a united student body is important to reduce the isolation felt when separated from the major university campus.

The members of the committee would like to thank Dr George Mellick, Dr Julie Jonsson, Dr Louise Hutley and Jenny Sutton for their time and advice.

Committee Members

Meagan Walsh,
Princess Alexandra Hospital

Albertina So,
Princess Alexandra Hospital

Nadeeka Dissanayaka,
Princess Alexandra Hospital

Ryan Parlett,
Mater Medical Research Institute

Marc Seifert,
National Research Centre for Environmental Toxicology.

Aaron Irving,
Centre for Immunology and Cancer Research
Since the establishment of the Princess Alexandra Hospital Cancer Collaborative Group in 2002 and the $2 Million collaborative development grant from the Queensland Cancer Fund substantial progress in basic and translational research activity has been achieved by a dedicated dynamic group of clinicians and researchers.

The development grant has:
- Facilitated and accelerated the pace of cancer research activity on the campus;
- Created opportunities for additional funding through external grants and district funds;
- Further enhanced collaborations between the basic scientists and clinicians including surgeons.

Tremendous momentum continued throughout 2004 which resulted in the formation of new collaborations with oncologists, surgeons, and other clinicians and further enhancement of existing collaborations. Significant research progress has been made by the Cancer Collaborative Group team in basic, translational and clinical research as summarised below and detailed in the report. The extent of the research activity is reported in the Centres for Health Research Review 2004 which will be available shortly.

**Research Program**

**Gene Profiling:** A DNA Microarray Facility is now fully operational with additional staff appointments made during the year. The group have been two-ongoing projects: gene expression profiling in B-Chronic Lymphocytic Leukemia and osteosarcomas for predicting clinical outcomes.

**Clinical Research:** Thirty six submissions were made to the Princess Alexandra Hospital Human Research Ethics Committee the majority being clinical trials of which four were investigator initiated. Some of these trials are linked to, or in some cases based upon, correlative laboratory studies led by Cancer Collaborative Group members eg Minimal Residual Disease in Acute Myeloid Leukaemia.

**Database Project:** The preferred model is the “hub and spoke”. The group has been developing the minimum dataset for all cancers, and on disease site-specific datasets for both solid and haematological malignancies as the starting point.

**Training and Mentoring Young Investigators**

Three PhD scholarships were awarded in 2004 for 2005.

The following are the projects that will be undertaken:
- Gender Differences in Lay Caregiver Needs, Burden and Support While Caring for a Patient with Recurrent Cancer;
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- Prediction of Hearing Outcomes in Acoustic Neuroma Surgery: Correlation between Audiological Results, Magnetic Resonance Imaging, Surgical Findings, and Histopathological Appearance.
Dr Alex Guminski, who joined the Princess Alexandra Hospital Medical Oncology Department in August 2004 from the United Kingdom, was awarded a Practitioner Fellowship. Dr Guminski’s current research is on valproic acid and head and neck cancers working in close collaboration with the basic scientists within the Gene Profiling Unit.

Translating Research Outcomes

**Website:** Information has been developed for the Princess Alexandra Hospital research website (under the Cancer Collaborative Group [http://www.health.qld.gov.au/pahospital/ccg/default.asp](http://www.health.qld.gov.au/pahospital/ccg/default.asp))

**Cochrane Reviews:** Drs B Hickey and M Lehman have submitted a protocol titled ‘Sequencing of Chemotherapy and radiation therapy for early breast cancer’

**Ongoing Education:** A number of professional and public education activities have been established including bimonthly Cancer Collaborative Group seminars and presentations at the Annual Princess Alexandra Hospital week.

**Publications:** In 2004 the Cancer Collaborative Group had over fifty publications. These included peer reviewed articles, published abstracts and book chapters.

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His main clinical and research interest is in the field of Head and Neck Cancer. Prior to arriving he had worked in the Head and Neck Unit at the Peter MacCallum Cancer Centre where research work was being undertaken combining novel chemotherapy agents and radiation therapy for the treatment of advanced head and neck cancer, and the use of 3D conformal and intensity modulated radiotherapy.

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Apart from the Chairman and Secretary, all members act in an honorary capacity.

Chair

Dr D Dickey
MBBS, FRACP

Members

Dr J North
MBBS, FRACS Graduate with Research Experience

Dr R Zubeshaw
MBBS, Dip RANZCOG Medical Graduate not associated with the hospital General Practitioner

Ms JA Coombes
B Pharm, MSc Pharmacy Graduate

Ms Kerri Holzhauser
RN, B Health Sc.(Nursing) TNCC, CATN Nursing Graduate

Mr R Johnson
Dip Tch, B.Ed., B.A, Layman

Mrs H Brennan
B.Ed Laywoman

Rev Fr B Thomas
B.A., B.Ed., B.D., GOE Minister of Religion

Ms D K Grigg
B.Com LLB, L.L.M Legal Practice Lawyer

Dr K Ferguson
MBBS Secretary
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Dr Devinder Gill,
Director of Clinical Haematology

A/Professor, Darrell Crawford,
Professor of Medicine, Director of Gastroenterology and Hepatology

Dr Brian Gabrielli,
Centre for Immunology and Cancer Research

Dr Sarah Winch,
Nursing Education Research Unit

Ms Ingrid Hickman,
(resigned October 2004), Diabetes and Endocrinology Department

Ms Meaghan Walsh,
(commenced October 2004), Diabetes and Endocrinology Department

Ms Anne-Louise Bulloch,
School of Medicine, University of Queensland

Mr Phil Berquier,
School of Medicine, University of Queensland

Mr David Brown-Rothwell,
Audiology, Allied Health

Professor Ian Jones,
School of Medicine, University of Queensland

Professor Kenneth Donald,
Professor and Head Graduate School of Medicine, University of Queensland.

Secretariat
Ms Areti Gavrilidis,
Business Manager, Centres for Health Research

Ms Diane Allwood,
Executive Support Officer, Centres for Health Research
The Allied Health Research Committee

The “Allied Health” group comprises of a diverse group of health professionals providing diagnostic, rehabilitative and clinical support to the hospital and community through specialised services.

Committee Members

Ms Delena Amsters
(Research Officer, Spinal Outreach Team)

Ms Annette Broome
(Acting Director, Psychology)

Mr David Brown-Rothwell
(Conjoint research position in Audiology PAH/UQ)

Ms Julie Connell (Director, Clinical Support Services)

Dr Petrae Cornwall
(Conjoint research position in Speech Pathology PAH/UQ)

Ms Sue Cumming
(Director, Social Work)

Dr Jenny Fleming
(Conjoint research position in Occupational Therapy PAH/UQ)

Ms Janelle Griffin
(Senior Occupational Therapist)

Mr Terrence Haines
(Conjoint research position in Physiotherapy PAH/UQ)

Ms Annabel Hickey
(Manager, Clinical Services Evaluation Unit)

Ms Melissa Kendall
(Research Officer, Transitional Rehabilitation Program & Acquired Brain Injury Outreach Service)

Dr Jennifer Lethlean
(Chair, PAH Allied Health Research Committee)

Mr Shaun McKay
(Prosthetics & Orthotics)

Dr Sirous Momenzadeh
(Project Coordinator – Mental Health Outcome Measurement, Queensland Transcultural Mental Health Centre, PAH)

Ms Marianne Schubert
(Research Officer, Transitional Rehabilitation Program & Acquired Brain Injury Outreach Service)

Ms Angela Vivanti
(Research Officer, Transitional Rehabilitation Program & Acquired Brain Injury Outreach Service)

This report outlines the major achievements of the Allied Health Research Committee for 2004 under each of its four main aims.

The Allied Health Research Committee aims:

- To facilitate, encourage and support high quality research in allied health which will be nationally and internationally recognised and contribute significantly to evidence based practice.
- Regular Allied Health Research Committee (AHRC) meetings with a wide range of hospital departmental, divisional and community representation;
- Format change of the AHRC meetings from an administrative/information sharing focus to a problem solving/networking one;
- Development of an AHRC Business Plan to provide strategic direction for allied health research.
- Coordination of a monthly Allied Health Research and Quality Forum;
- Encouragement of allied health postgraduate students to join the PAH Postgraduate Research Committee.
To facilitate, coordinate and advocate for the dedicated allocation of resources to research in allied health:

- Part-time funding of the AHRC chair position by the Division of Clinical Support Services;
- Further progression of the strategic directions for allied health research identified in the Allied Health Research Project Report: Model for an Allied Health Research Centre (Kuys, 2003);
- Development of a coordinated response to projected research space requirements for allied health submitted to the Centres for Health Research;
- Participation in the recruitment of the Cancer Collaborative Group post-graduate research scholarships.

To increase the number of research proposals, publications, presentations and successful grant applications in allied health:

- Ongoing notification and dissemination of available research funding via e-mail and regular research meetings;
- Provision of support and information for smaller departments regarding the development of research proposals;
- There have been a significant number of research proposals, publications, presentations and grants awarded to the allied health group. Refer to the individual area reports for details.

To increase the profile of allied health involvement in research at Princess Alexandra Hospital and the community:

- Improved awareness of research activities between allied health disciplines;
- Ongoing development of collaborative research projects;
- Ongoing representation by David Brown-Rothwell on the Princess Alexandra Hospital Research Committee.

Next year promises to mark an important stage in the ongoing development of allied health research at Princess Alexandra Hospital with a proposal for the appointment of a professorial chairperson in allied health.

Next year promises to mark an important stage in the ongoing development of allied health research at Princess Alexandra Hospital with a proposal for the appointment of a professorial chairperson in allied health.
The Princess Alexandra Hospital Foundation focussed on several key areas of fundraising in 2004 as well as ensuring that the funds raised were distributed to areas of research that would truly make a difference.

Traditionally the most reliable source of donations has been past patients of the Princess Alexandra Hospital. Due to a tightening of Queensland Health privacy policy, however, the Foundation have been prevented from contacting past patients since December 2003. The Foundation is now pleased to report that at the end of 2004 Queensland foundations received approval from the Minister for Health to work with their respective hospitals to place a patient permission box on registration forms that patients can tick to allow the Foundation to contact them. It is expected that this significant donation source will be reinstated and enhanced from April 2005.

A strong push was made in 2004 to increase bequest revenue. This area has become highly competitive within the charity sector and so the Foundation introduced a Free Will Service. The service will be promoted annually. The Foundation received 128 requests for free wills or appropriate will wording during 2004, a significant increase on previous years.

Events in 2004 included the 20th Birthday Gala Dinner which saw the role of the Foundation and deeds of the research teams communicated to a high level Brisbane gathering who enjoyed a magnificent evening of fine fare and entertainment. The event raised $48,000. Additionally, in partnership with the Queensland Hotels Association and Mater Hospital Trust, the Foundation initiated Hotel Care Week. The event raised $80,000 and will be grown further in 2005. The Foundation was also fortunate enough to be the beneficiary of the Cool Night Classic to the tune of $12,000.

A further highlight was the establishment of a partnership with Bendigo Bank that will see the release of the credit card in 2005 from which the Foundation will receive a small share of a hopefully large turnover.

A sad event in 2004 was the Princess Alexandra Hospital Foundation Chairman of two decades, Mr Leo Williams, stepping down. Largely through Leo’s personal commitment the Foundation has contributed in excess of $18 million to medical research at the Princess Alexandra Hospital. Also stepping down was Mr David Usasz, who provided a decade of dedicated service. Their contributions will be missed.

Members of the Foundation Board appointed by the Governor in Council are drawn from the business and medical communities.

Chair
Leo G. Williams AO, RFD, BA, LLB, Consultant, Freehills – Solicitors (resigned September 2004)

Deputy Chair
Anthony N. Ford
ASIA Retired

Members
Kenneth Donald
MBBS, PhD, FRCPA, MRAC Path., FRACMA, FRACS. Professor and Head Graduate School of Medicine, University of Queensland.

Lyn Hamill
B.Pharm (Vic), MBA, Chair Princess Alexandra District Health Council, Princess Alexandra Hospital

G. Roderick McLeod
AO, RFD, ED, MBBS, FRCS (Ed.), FRCS (Eng.), FRACS. Chair, Division of Surgery, Princess Alexandra Hospital.

David Theile
AO, MBBS (Hon.) (Qld), MS (Qld), FRACS, FRCS (Eng.), FRCS (Ed.) (Hon.), FANZCA (Hon.), FAMS (Hon.). Senior Visiting Surgeon, Princess Alexandra Hospital.

David Usasz

Donald P.Cameron
AO, MD, FRACP. Chair, Centres for Health Research, Princess Alexandra Hospital.

Michael T Wille
BA (Hons). Bowling Green University, Yale University. Company Director.

Simon Lockyer
BSc (Griffith Uni) Communication Director, McCann Erickson Advertising.
Indigenous Research Scholarship jointly awarded by the Princess Alexandra Hospital Foundation and the Queensland Institute of Medical Research

Karen Taylor, recipient of Indigenous Research Scholarship jointly awarded by Princess Alexandra Hospital Foundation (PAHF) and Queensland Institute of Medical Research (QIMR), was born in Brisbane and is a proud mother of a beautiful 8 year old daughter Larah Jayne. Karen has degrees in horticulture, applied science and education. After returning from a two year overseas adventure and again trying various satisfying employment opportunities Karen realised that she wanted to make a greater difference towards improving the quality of human life.

Karen commenced a master’s degree through the School of Life Sciences, Queensland University of Technology (QUT) - Two Hour, In Labour, Detection Test for Group B Streptococcus. In this study, Karen aims to develop and evaluate a rapid polymerase chain reaction assay for the detection of Group B Streptococcus also known as Streptococcus agalactiae, in pregnant women. In this study Karen will establish the prevalence of Group B Streptococcus amongst women of childbearing age who live in the Brisbane region. She also hopes to document the Group B Streptococcus colonisation rates of both Indigenous and non-Indigenous populations.

Group B Streptococcus causes neonatal morbidity and mortality, miscarriage, stillbirth, and preterm delivery in pregnant women, disease in children as well as intrapartum endometritis and other secondary infections in the immunocompromised adult and the elderly. The rapid polymerase chain reaction test will enable mothers to be tested for Group B Streptococcus during labour with results available within 2 hours therefore significantly decreasing the incidence of neonatal disease. This rapid polymerase chain reaction test would assist clinicians in diagnosis and be available to all mothers who deliver term or preterm.

Karen’s principal supervisor is Dr Christine Knox (QUT); other supervisors include Dr Sri Siprakash (QIMR), Ms Janelle Stirling (QIMR), and Dr Wendy Munckhof (PAH). While the PAH and QIMR each provides 50% of Karen’s scholarship, a top up scholarship was also awarded by the Australian Centre for International and Tropical Health and Nutrition. The Cooperative Research Centre for Aboriginal Health (CRCAH) has contributed funding for the laboratory development of the test. Karen’s principal research interests and those of Dr Christine Knox are the prevention of adverse pregnancy outcomes in both natural and assisted reproductive technology pregnancies. In the future Karen hopes to develop a maternal test which can be used as an indicator for the detection of bacterial systemic infection in neonates. She also hopes to investigate and develop further testing methods for GBS and other life threatening neonatal pathogens. Karen has gained a scholarship through the CRCAH to undertake a PhD degree and continue her work investigating neonatal infectious diseases and adverse pregnancy outcomes.

Currently, Karen’s objectives are to work in the areas of Adverse Pregnancy Outcomes and Human Physiology and Disease; to further her knowledge of and promote Aboriginal Health; complete her Master of Applied Science by Research through QUT; and to obtain a PhD qualification.
The Postgraduate Student Committee

The Princess Alexandra Hospital Postgraduate Student Committee combined with the Southern Clinical Postgraduate Student Association in June of 2004 to represent 130 postgraduate research students located at the Princess Alexandra Hospital, Mater Medical Research Institute and National Research Centre for Environmental Toxicology.

Mission Statement
The association will act as a resource to promote and provide a supportive environment for the postgraduate students within the School of Medicine, Southern Clinical Division.

Goals
To regularly bring together students and supervisors from different fields and campuses in a social and learning environment.
To reduce the feeling of isolation when separated from the main university campus.
To promote collaboration within the student body.
To act as a liaison between the student body and administration.
To increase general awareness of the student body.
To represent the student body at other committee meetings.

Achievements
The following was achieved during the year:

- A working committee comprising of students from Princess Alexandra Hospital, Mater Medical Research Institute and National Research Centre for Environmental Toxicology;
- Funding from the University of Queensland Student Union;
- Monthly seminar series - 6 invited speakers from the University of Queensland student support services, Princess Alexandra Hospital and School of Medicine staff.

The working committee organised seminars on a range of topics including time management, the supervisory relationship, writing skills and the confirmation process. The presence of a united student body is important to reduce the isolation felt when separated from the major university campus.

The members of the committee would like to thank Dr George Mellick, Dr Julie Jonsson, Dr Louise Hutley and Jenny Sutton for their time and advice.

Committee Members
Meagan Walsh, Princess Alexandra Hospital
Albertina So, Princess Alexandra Hospital
Nadeeka Dissanayaka, Princess Alexandra Hospital
Ryan Parlett, Mater Medical Research Institute
Marc Seifert, National Research Centre for Environmental Toxicology
Aaron Irving, Centre for Immunology and Cancer Research

Research - Key to Health
In the third year of operation, the Academic Unit in Geriatric Medicine has continued to lay the groundwork towards its objective of being a leading geriatric medicine research group in Australia. Several substantial research projects are underway, the results of which will begin to appear in publications in 2005. There are two major foci of research - service development in geriatric medicine and aged care, and Parkinson's disease. As a result of increasing research and development income, the expertise in these areas continues to develop apace. In addition to four PhD students, the unit is increasingly involving trainee physicians and other health professionals in its research endeavours. In 2005 there will be two "Senior Registrars" with significant research responsibilities affiliated with the Unit - a senior registrar in geriatric medicine and a research registrar in neurology and geriatrics.

**Current Research Activities**

**Clinical Trials**

- Validation of the interRAI-AC for detection of delirium: Agreement with clinician assessment. (J Endecott, M Khateeb, J Morris, L Gray)
- Geriatric outcomes study in hospital (GOSH). (L Gray, J Hirdes, A Wilson, E Beller, I Scott, P Ramritu)
- Reliability and validity of the interRAI Acute Care protocol. (L Gray and the interRAI Collaborative)
- Multi-centre study identifying impacts of an assessment and care planning protocol for frail older patients in acute care. (L Gray, B Nair, E Beller, S Bowler, P Varghese, P Goldstraw)
- Interacting effects of attention and balance in depressed elders. (A Broome, S Brauer, S Taylor, P Varghese)
- "Preventing Falls in Acute and Rehabilitation Hospitals" and "Preventing Falls and Fractures in At-Risk Groups of Older People" as part of Prevention of Injuries in Older People. NHMRC Injury Partnership. (S Lord et al - Collaborative partner S Kuys)
- A randomized, multicentre, double-blind, placebo-controlled, 18-month study of the efficacy of Xaliproden in patients with mild to moderate dementia of the Alzheimer's type. (P Varghese, D Lie)

**Biomedical Research**

- Gene x environment interactions and the cause of Parkinson's Disease.
- Familial Parkinson's - What does it mean to claim a family history?
- Depression in Parkinson's Disease - Defining the phenotype.
- Psychiatric and non-motor symptoms of PD - What are the risk factors?

**Other Research**

- Review of the Cairns District Aged Care Assessment Team for the Cairns Health Service District.
**Financial Support**

**Grants**
- $50,000, Utah Foundation, Development of interRAI protocols for the Australian environment. (Len Gray)
- $5,000, Utah Foundation, Multicentre study identifying impacts of an assessment and care planning protocol for frail older patients in acute care. (Len Gray)
- $17,000, Department of Health and Ageing, Review of the National Strategy on Ageing in Australia. (Len Gray)
- $49,200, Department of Veterans Affairs, Review of the Health Service Delivery Model. (George Mellick)
- $42,000, Geriatric Medical Foundation of Queensland, Parkinson’s disease and ageing. (Len Gray)
- $40,000, Sanofi Synthelabo, A randomized, multicentre, double-blind, placebo-controlled, 18-month study of the efficacy of Xairol in patients with mild to moderate dementia of the Alzheimer type. (P Varghese)

**Other Sources**
- $21,000, Consultancies, L Gray
  - Parkinson’s research: Personal Donations (aetiology of Parkinson’s disease) $140,000; (depression in Parkinson’s disease) $60,000

**Publications**

**Journal Articles**


**Published Abstracts**

Deng Y, Newman B, Dunne MP, Silburn PA, Boyle R, Mellick GD, Case-only study of interactions between genetic polymorphisms of GSTM1, P1, T1 and Z1 and smoking in Parkinson’s disease [P797]. 8th International Congress of Parkinson’s Disease & Movement Disorders, June 13-17, 2004, Rome, Italy.


Gray L, Nair K, Beller E et al “Integrated comprehensive geriatric assessment and management using the RAI – Acute Care A Randomised Controlled Trial. Results of a Pilot Study” Australian Society for Geriatric Medicine, Annual Scientific Meeting (2004).
Old folks in younger people's hospitals.

Lectures and Presentations

Professor Len Gray

Hospital Care for Older Patients. Grand Round, Royal Brisbane Hospital, Brisbane, 2004.


Research - Key to Health


Mellick GD. Studying the risk factors for Parkinson's disease in Queensland. 4th Annual Queensland Health and Medical Scientific Meeting, December 2004, Brisbane, Australia.


Book Chapters


Articles Accepted for Publication


Dr George Mellick

Introducing the Research Student Portfolio (RSP), Presentation to the UQ Faculty of Health Sciences Teaching & Learning Workshop, October 2004.

Developing Research Students' Graduate Attributes, Presentation to School of Medicine Research Retreat, October 2004.


Dr Colleen Cartwright


Cartwright C. What is/is not euthanasia? Invited presentation to AMA (Qld) Ethics Committee, February 2004.

Post Graduate Students

Daniel Buchanan, PhD

Yifu Deng, PhD

Coral Gartner, PhD

Rodney Marsh, PhD

Prabha Ramritu, PhD, Commenced in 2004

Anna Sellbach, MPhil, Commenced in 2004

Shaun McCrystal, BSc (Hons), Commenced in 2004

Awards

Dr George Mellick

Commendation UQ Awards for the Enhancement of Student Learning 2004 (co-recipients Catherine Manathunga and Paul Lant for the Research Student Portfolio).

Public Service Relevant to Research

Professor Len Gray

Associate Editor, Australasian Journal of Ageing

Fellow, interRAI collaborative, including international Chair of the Acute Care working group

Member, Ministerial Implementation Task Force (Australian Government Minister for Ageing)

Dr Colleen Cartwright

Member, Australian Association of Gerontology

Member, Australian Bioethics Association

Member, St Luke's Nursing Service Ethics Committee

Member, Health Rights Advisory Council, to work with Commissioner for Ageing, to advise Qld Minister for Health.

Dr George Mellick

Vice-President, Parkinson's Queensland Incorporated


Dr Paul Varghese

Member, Clinical Reference Group advising Australian Health Ministers Advisory Council - Care of Older Australians Working Group

Member, Stroke Care Pathway Expert Advisory Committee charged with the development of a Stroke Care Pathway

Member, Transition Care Task Group advising the Care of Older Australians Working Group on the Transition Care program

Dr Paul Varghese

Member, Clinical Reference Group advising Australian Health Ministers Advisory Council - Care of Older Australians Working Group

Member, Stroke Care Pathway Expert Advisory Committee charged with the development of a Stroke Care Pathway

Member, Transition Care Task Group advising the Care of Older Australians Working Group on the Transition Care program
The Acquired Brain Injury Outreach Service is a specialist community-based rehabilitation service for people with acquired brain injury, for carers and for workers assisting people with acquired brain injury. The primary aim of the service is to facilitate successful community integration for people with acquired brain injury. It also provides training and consultancy to service providers and carers. The service also conducts research and development activities to improve outcomes for people with acquired brain injury and their families.

The major highlight in the 2004 year was the securing of a service development and evaluation grant from the Pathways Home initiative of the Federal Department of Health and Aging. This grant will be used to develop and evaluate self management support networks for people with stroke and brain injury following discharge from hospital.

**Current Research Activities**

- Self management support networks for people with stroke and brain injury after hospital discharge: Development and evaluation.
- Measuring participation and resource availability and utilisation in community-based Acquired Brain Injury rehabilitation.
- Organisational impacts on community-based rehabilitation goals: a comparison across community rehabilitation services for people with brain injury.
- Evaluation of a children’s support programme to build family resilience and enhance the quality and durability of outcomes for individuals with brain injury.
- A research intervention to enhance the well-being and psychosocial outcomes of patients based on the World Health Organisation International Classification of Functioning, Disability and Health-environment framework.
- Evaluation of a clinical alliance between the Acquired Brain Injury Outreach Service and the Kirwan Acquired Brain Injury Service as a means of improving urban and regional collaboration and providing reciprocal staff support in managing and understanding dual diagnosis brain injury and mental illness.
- Predicting care needs in the community for people with brain injury using outcome indicators collected at discharge from inpatient rehabilitation.
Financial Support
$15,000, Princess Alexandra Hospital Foundation, Enhancing the well-being and psycho-social outcomes of patients, based on the World Health Organisation’s ICF ‘environment’ framework: A randomised controlled study in the PAH Brain Injury Rehabilitation Unit - Day Hospital. (Kuipers, P)

$4,000, Quality Improvement Project, Development and evaluation of a children’s support programme to build family resilience and enhance the quality and durability of outcomes for patients. (Wright, S)

$680,000 over 4 years, funding secured during 2004- project will commence in 2005, Pathways Home Program, Federal Dept of Health and Aging. Self management support networks for people with stroke and brain injury after hospital discharge. (Quinn, R)

Publications
Journal Articles


Articles Accepted for Publication

Presentations


Post Graduate Students
Melissa Kendall,
Doctor of Philosophy (rehabilitation psychology), School of Human Services, Griffith University

Public Service Relevant to Research
Melissa Kendall
Member, Princess Alexandra Hospital Allied Health Research Committee
Reviewer, Disability and Rehabilitation

Pim Kuipers
Member, Princess Alexandra Hospital Allied Health Research Committee
Reviewer, Australian Journal of Rural Health, Disability and Rehabilitation, Rural and Remote Health

Tara Catalano
Member, National Stroke Foundation Self Management Advisory Group
The Aged Care Mental Health Service is the psychogeriatric service within the Princess Alexandra Hospital Health Service District. Psychogeriatrics is a subspecialty of psychiatry that interests itself in all aspects of the mental life of elderly people. Psychogeriatrics, as a broader scientific study encompasses neurology and geriatric medicine and other fields where neuropsychiatric disorders are common. The Aged Care Mental Health Service continues to provide educational expertise especially to trainees in geriatric medicine and psychiatry.

Public sector Psychogeriatric Services target late-onset mood and psychotic disorders, people with long-term mental illnesses with age-related frailty and people with dementia who have mood and psychotic disorders complicating their illness. Such services are relatively underdeveloped in Queensland but slowly expanding and Aged Care mental Health Services personnel assist policy and service development within the State and elsewhere.

The Memory Clinic, run in collaboration with the Department of Geriatric Medicine, is a research-funded diagnostic service aimed at the detection and characterisation of dementing disorders at their earliest stages. It is a particularly effective vehicle for education around dementia and neuropsychology.

The Aged Care Mental Health Service is part of the recently funded Dementia Evidence Implementation Network. The network is made up of clinical groups in primary, community, acute and residential sectors operating in the Princess Alexandra Hospital and Queen Elizabeth II and Redlands Health Districts as well as carers for patients with dementia. The patient’s journey through the health care system commonly involves several sectors and this project funded by the National Institute for Clinical Studies should improve cooperation between the participating groups as well as improving patient care for patients with dementia within the Princess Alexandra Hospital Health Service District.

Current Research Activities

Clinical Trials

A randomised, multi-centre, double-blind, placebo-controlled, 18-month study of the efficacy of a new treatment in patients with mild-to-moderate dementia of the Alzheimer’s type. Trial Location: Geriatric and Rehabilitation Unit, Princess Alexandra Hospital. (Principal Investigators: Dr P Varghese, Director, Department of Geriatric Medicine and Dr D Lie)

Other Research

Self-awareness and executive functioning as predictors of driving ability in older people with early dementia or traumatic brain injury. Clinical Neuropsychology Doctorate Research conducted in partnership with the Occupational Therapy Department Princess Alexandra Hospital and School of Psychology University of Queensland, and Aged Care Mental Health Service. (N Squelch, Principal Investigator)

Memory Regained: Treatment Effects of Cholinesterase Inhibitors in Individuals Suffering from Very Early Alzheimer’s Disease. Aged Care Mental Health Service. (A Broome)
Financial Support
$9526.62, National Institute for Clinical Studies, Implementing dementia care evidence with acute care providers and community based carers (Principal Investigator Dr Sarah Winch)

Skills for Independent Living: Measuring Social Competency in Neurological Patients with Dementia. University of Queensland, Aged Care Mental Health Service, Department of Geriatric Medicine. (D Pinsker, V Stone, N Pachana, A Broome)

Memory Screening in General Practice. University of Queensland, Aged Care Mental Health Service. (N Pachana)

Are problems with attention associated with poor balance in depressed older adults?
Department of Physiotherapy, Princess Alexandra Hospital and Aged Care Mental Health Service, University of Queensland. (Dr S Brauer, Ms Annette Broome, Ms Sandy Taylor, Dr Paul Varghese, Dr Jennifer Burt) (Data phase completed)

Publications

Journal Articles

Published Abstracts

Articles Accepted for Publication

Lectures and Presentations
Dr David Lie
The national patient safety agenda and Mental Health – Toowoomba District Mental Health Service, November 2004

Rockhampton District Mental Health Week invited presenter Mental Health issues in Australian Nursing Homes - Rockhampton District Mental Health Service, October 2004

Old Health Beyond Outcomes forum, Brisbane – Outcome measures in aged care, July 2004

5th Gold Coast International Mental Health Conference – Mental health issues in Australian nursing homes, July 2004

International Neuropsychiatric Society Conference, Brisbane Sheraton – Driving cessation and dementia, July 2004

Princess Alexandra Hospital Mental Health Conference – Older mental health people’s services – an update, March 2004

Janet Meadows
Co-presenter. An Innovative Skills Transition Program for Graduate Nurses in Mental Health, Royal College of Nursing National Conference, 15-7-04 Alice Springs

Annette Broome

The working of a memory clinic. Experiences and cases from the Princess Alexandra Hospital. International Psychiatry Conference, Gold Coast, July 2004. (Invited presentation)


How to Develop and Use Behavioural Care Strategies in Transcultural Community Settings. Transcultural Mental Health Service & Community Stakeholders. 10th November 2004. (Invited presentation)

Post Graduate Students

Natasha Squelch,
Doctorate in Clinical Neuropsychology, University of Queensland

Annette Broome,
PhD, Clinical Psychology and Clinical Neuropsychology, University of Queensland
Alcohol and Drug Assessment Unit

This ambulatory clinical service is primarily involved with the identification, assessment and treatment of alcohol and other drug problems, as encountered either within the hospital campus or referred by community health practitioners. The group develop, apply and evaluate cognitive and behavioural approaches in the treatment of substance abuse disorders. Clinical evaluation includes aspects of expectancy, craving and the use of relapse prevention medications. The implementation of the Queensland Illicit Drug Diversion Initiative has offered additional opportunities to evaluate distinct patient populations.

Current Research Activities
The effect of cognitive behavioural therapy on Health Perception and Quality of life measures in the treatment of alcohol dependence.
Treatment effects of alcohol related expectancies.
Cannabis expectancy cognitions and the implications for treatment.
Application of machine learning techniques to clinical decision making in the treatment of alcohol dependence.
Psychometric and psychosocial outcomes in liver transplantation for alcoholic liver disease.
Development of valid and reliable measures of craving for alcohol and cannabis.

Staff
Dr Gerald Feeney, Medical Director
Nursing Staff
Sr Annie McPherson, Nursing Officer
Sr Karen Dillman, Nursing Officer
Ms Jane Tucker, Social Worker
Visiting Clinical Psychologists
Professor Ross McD Young, Senior Psychologist
Dr Jason Connor
Dr David Walters
Dr Angela Green
Ms Dixie Statham
Ms Janine Lonsdale
Ms Rachel Phillips
Ms Tracey Atkinson
Ms Janelle Cross
Ms Allison Cahill
Mr Mark Wainright
Administration Officer
Ms Carolyn Van Dyk
Publications

Journal Articles

Young RM, Lawford BR, Feeney GF, Ritchie T, Noble EP. Alcohol-related expectancies are associated with the D2 dopamine receptor and GABA A receptor beta3 subunit genes. Psychiatry Research 2004:127; 171-83.

Book Chapters
Quality of Life in Addiction

Articles Accepted for Publication
Young RMcD, Lawford BR, Feeney GFX. How Drugs Hijack the Brain. Australasian Science. (In press)

Lectures and Presentations

Post Graduate Students
H Hayden, B Psy (Hons), Commenced in 2004
M Wainright, PhD

Public Service Relevant to Research
Dr Gerald Feeney
Evidence-Based Mental Health: (Commentary)

Professor Ross McD Young
Chair, Early Detection and Prevention Committee of the Queensland Cancer Fund.
Chair, Curriculum Development Committee, Southern Zone Mental Health Education Service.
Member, Communication Skills Advisory Group, Skills development Centre, Queensland Health.
Member, Anti Cancer Council of Queensland
Reviewer, Drug and Alcohol Review
Reviewer, Addiction
Reviewer, Addictive Behaviour
Reviewer, American Journal of Medical Genetics

Dr Jason Connor
Reviewer, European Journal of Psychiatry
Commentary, Evidence-Based Mental Health

Financial Support
The Alcohol and Drug Assessment Unit has treatment funding only
National Drug Strategy Funding
Queensland Illicit Drug Diversion Initiative
Collaboration is the key ingredient in the current audiological research. While traditionally such collaborations have involved University and Hospital Departments, for the first time a close link has been established with a community-based support group.

As in previous years clinical interest has focused on the management of acoustic neuroma patients with the emphasis on improving service delivery. Investigation of the diagnostic aspects has continued with the Ear Nose and Throat Department with interest centring on the optimal time for surgical intervention. The rehabilitative aspects have been further researched through an important collaborative link with the Physiotherapy Division at the University of Queensland with the intention of enhancing post-operative management of vestibular dysfunction.

A significant new collaboration has evolved with the Queensland Acoustic Neuroma Association, which is the key patient support group. This is resulting in a synergy between hospital and community that has the potential to transform the direction of future research.

**Current Research Activities**

A clinical evaluation of the stacked derived amplitude measure to analysis the Auditory Brainstem Response and enable the detection of small acoustic neuromas.

An exploration of the role of physiotherapy in addressing the post-operative balance, mobility, and gaze deficits of acoustic neuroma patients. The application of bone-anchored hearing aids to overcoming the difficulties arising from the single-sided deafness that occurs as a result of acoustic neuroma surgery.

A correlation of the between the audiological results, the magnetic resonance imaging, the surgical findings, and the histopathological appearance of acoustic neuromas in order to determine the optimal timing of surgical intervention in terms of patient outcomes.
Financial Support
$3,000, Queensland Acoustic Neuroma Association. Bone-anchored hearing aid project.

Publications
Published Abstracts


Editorial Contributions

Lectures and Presentations
David Brown-Rothwell
Acoustic Tumours: How Important is Size?
Princess Alexandra Hospital Week.

Many Years of Meniere's. Medtronic Ear Nose Throat Nurses Seminar.

Brown-Rothwell D, Panizza B
Review of Acoustic Neuroma Research.
Princess Alexandra Hospital Collaborative Cancer Group Seminar.

Post Graduate Students
Andrea Harvie,
MAudS, Completed in 2004

Nicole Doling,
MAudS, Completed in 2004

Public Service Relevant to Research
Evelyn Towers
Member, Panel of Experts Committee on Access Issues, Audiological Society of Australia

Member, XVI Conference Organising Committee, Audiological Society of Australia

David Brown-Rothwell
Member, Princess Alexandra Hospital Allied Health Research Committee

Member, Princess Alexandra Hospital Research Committee

Patron, Queensland Acoustic Neuroma Association

Tegan Keogh
Queensland State president Audiological Society of Australia

Member, XVI Conference Organising Committee, Audiological Society of Australia

Jillian Sellars
Queensland State Vice-President Audiological Society of Australia

Financial Support
$3,000, Queensland Acoustic Neuroma Association. Bone-anchored hearing aid project.
Breast and Endocrine Department

The Breast and Endocrine Surgical Unit at Princess Alexandra Hospital provides comprehensive world-class management of breast and endocrine surgical conditions within a multi-disciplinary setting. Over 130 newly diagnosed breast cancers are treated within the Unit each year. Breast cancer is managed in conjunction with the Medical Oncology Unit and Radiation Oncology Unit. Surgeons meet on a weekly basis with clinicians from the other disciplines in a combined breast oncologic multi-disciplinary clinic to ensure that "state of the art" breast cancer treatment is provided in keeping with nationally accepted best practice guidelines.

The respective surgeons also work closely with the BreastScreen Queensland Brisbane South Service so that surgical expertise is provided for screening, assessment and diagnosis of early stage breast cancer to facilitate and integrate with definitive management. The Unit is also involved in collection of data for the Royal Australasian College of Surgeons National Breast Cancer Audit of all breast cancers treated at the Princess Alexandra Hospital.

Endocrine disorders are also managed where appropriate in conjunction with the Department of Diabetes and Endocrinology and a weekly combined clinic is held to review difficult cases. The Unit also plays a role in undergraduate and post-graduate teaching of breast and endocrine surgical conditions.

Current Research Activities

Clinical Trials - Funded
RACS SNAC Trial: A multi-centre randomised controlled trial of Sentinel Node Biopsy versus Axillary Clearance. Approximately 25% of national total recruited in Queensland and about half of these by the Princess Alexandra Hospital Surgeons.

Unfunded Projects
Role of Harmonic Scalpel in Thyroidectomy: an on-going clinical audit.
Ultrasound Guided Excision of Impalpable Breast Lesions: an on-going clinical audit.
Financial Support
$25,000, Breast Cancer Association of Queensland, RACS SNAC Trial. (Dr Neil Wetzig)

Publications
Journal Articles

Published Abstracts
Bennett, I.C. Surgeon-Performed Thyroid Ultrasound and FNAB. In Handbook for Ultrasound for Endocrine Surgery - The Thyroid & Parathyroid Workshop. Conducted by ASUM in conjunction with the RACS Congress RACS Spring St, Melbourne May 2004. Convenor Dr Bev. Barracough.


Articles Accepted for publication

Lectures and Presentations
Dr Ian Bennett
Surgeon-Performed Thyroid Ultrasound and FNAB. Thyroid & Parathyroid Workshop. Conducted in conjunction with ASUM at the RACS ASC, RACS Headquarters, Spring St, Melbourne May 2004. Convenor Dr Bev. Barracough.

Public Service Relevant to Research
Dr Neil Wetzig
Chairman, Royal Australasian College of Surgeons (RACS) Section of Endocrine Surgery
RACS Representative, Quality Management Committee BreastScreen Queensland
Co-Chairman, RACS SNAC Trial Management Committee
Chairman, Queensland Co-operative Oncology Group Breast Group
Executive Member, Queensland Co-operative Oncology Group
Editorial Board World Journal of Surgery
Member Ministerial Advisory Council on Cancer Control Queensland Health

Dr Ian Bennett
Chairman, Breast and Endocrine Surgical Unit, Princess Alexandra Hospital

Chairman, BreastScreen Queensland Surgery Q Group 1994 – current
BreastScreen Queensland Quality Management Committee, October 1997 – current
BreastScreen Queensland Training Committee Representative 1993 – current

Clinical Director, Breast Cancer Family Clinic, BreastScreen Queensland, North Brisbane Service, Chermside

Research - Key to Health
The Cardiology Department is a tertiary referral unit offering a comprehensive cardiac service including electrophysiology, invasive intervention and echocardiography. Consequently, the Cardiology Department consists of a Coronary Care Unit incorporating a Procedure Ward, Cardiology Step-Down Ward, 2 Cardiac Catheter Laboratories (a third Catheter Laboratory currently under construction), ECG Department, Echocardiography Department and Research Department. Supporting the medical officers are adjunctive registered nurses working in Cardiology Rehabilitation, Cardiac Resuscitation and Cardiac Research, as well as Cardiac Scientists involved in echocardiography, pacemakers, ECG, holter recordings, exercise and pharmacological stress testing. In 2005 a Clinical Nurse Consultant Heart Failure will be appointed to monitor and follow-up heart failure admissions, heart failure education and develop a heart failure rehabilitation programme.

The broad expertise the Cardiology Department offers has secured a large number of clinical trials from a variety of pharmaceutical companies, universities, the National Health and Medical Research Council, the National Institutes of Health and investigator-driven research over the past 15 years. Collaboration with the Cardiac Surgery Department and the University of Queensland’s Cardiovascular Imaging Research Group has ensured that a broad range of cardiology modalities can be offered to prospective research organisations to ensure their clinical trials are implemented in their entirety as well as being able to participate in substudies utilising specific diagnostic tools. Research areas cover coronary artery disease, myocardial infarction, acute coronary syndrome, cardiac arrhythmias, implantable devices, radiofrequency ablation, acute/chronic systolic/diastolic heart failure, coronary angiography and percutaneous transluminal coronary angioplasty, cardiac echocardiography, cardiac magnetic resonance imaging and cardiac surgery.

The Cardiology Research Department has participated in 66 clinical trials during the past 15 years and has had many audits by Australian, European and US companies. One such audit produced a ‘no findings’ which was a first for the sponsoring company.

Current Research Activities

Clinical Trials

Active Trial – Atrial fibrillation sponsored by Sanofi-Aventis and Bristol Meyers Squibb. (Dr Paul Garrahy, Principal Investigator)

Apex Trial – Acute primary PTCA sponsored by Procter and Gamble Alexicon. (Dr Paul Garrahy, Principal Investigator)

Chablis Trial – Heart failure with systolic dysfunction sponsored by Sanofi-Aventis and Alfred Hospital. (Professor Tom Marwick, Principal Investigator)

HAT Study – Anterior/lateral myocardial infarctions randomised to CPR or home automatic defibrillators. sponsored by NIH sponsored. (Professor Tom Marwick, Principal Investigator)

I-Preserve Trial – Heart Failure with diastolic dysfunction sponsored by Bristol Meyers Squibb. (Professor Tom Marwick, Principal Investigator)
Financial Support
Grants
Aus $50,000 per annum “Assessment of latent left ventricular dysfunction in asymptomatic severe mitral regurgitation”: Dr Sudhir Wahi - Recipient of the 2 year National Heart Foundation of Australia Grant - in - aid for 2004 - 2005.
$25,000, National Heart Foundation of Australia, Assessment of latent left ventricular dysfunction in asymptomatic severe mitral regurgitation. (Dr Sudhir Wahi)
(See also Professor T Marwick, Cardiovascular Imaging Research Group)

Publications
Journal Articles
(See also Professor T Marwick, Cardiovascular Imaging Research Group)

Articles Accepted for Publication
(See also Professor T Marwick, Cardiovascular Imaging Research Group)

Lectures and Presentations
Wahi S, Should we treat the valve or the ventricle? 52nd Annual Meeting of the Cardiac Society of Australia and New Zealand, Brisbane 2004.
Wahi S, Ultrasound Tissue Characterization may be used to Detect Subclinical Left Ventricle Dysfunction and Fibrosis in Asymptomatic Severe Mitral Regurgitation, Annual scientific sessions of the American Heart Association 2004, New Orleans, USA.
Lim R, How to Save Money during PCI, China Interventional Therapeutics Meeting, Shanghai 2004.
Robinson R, Cardiac Disease affects Children too - What is there for me to read? Australian Cardiac Rehabilitation Association 14th Annual Scientific Meeting and Exhibition, Gold Coast August 2004.

Awards
Rosemary Robinson
Best Clinical Presentation, 2004, Australian Cardiac Rehabilitation Association

Public Service Relevant to Research
Dr John Hill
Literature Review Panel, North American Society for Pacing and Electrophysiology
Literature Review Panel, Journal of Cardiac Electrophysiology

Dr Sudhir Wahi
Member, Scientific Committee for the 52nd Annual Scientific Meeting of the Cardiac Society of Australia & New Zealand, held in Brisbane in August 2004

Dr Richard Lim
Member, Princess Alexandra Hospital Human Research Ethics Committee

Cindy Hall
Committee Member, Cardiac Nurses Working Group, The Cardiac Society of Australia and New Zealand
Member, Scientific Committee for the 52nd Annual Scientific Meeting of the Cardiac Society of Australia & New Zealand, held in Brisbane in August 2004
Invited to review and give input into changes in the management of the Princess Alexandra Hospital Human Research Ethics Committee.
Invited to review the Therapeutic Guidelines Publication: Cardiovascular 4 and the Australian Arrangements for Clinical Trials and Therapeutic Goods for the Australian Nursing Federation.
(See also Professor T Marwick, Cardiovascular Imaging Research Group)
The Cardiovascular Imaging Research Group provides clinical and research capability in cardiac imaging and image processing, including multi-modality interests that are unique in the Asia-Pacific region. The Group has expertise in new echocardiographic imaging technologies, myocardial viability, early detection of atherosclerosis, assessment of contractile reserve, and studies of how cardiac imaging techniques can influence patient outcomes and cost-effectiveness of care. This work is carried out in the research echo/stress area in the main hospital and image processing area in the Department of Medicine.

The Group offers a level of infrastructure unmatched in the region. Resources include data acquisition with three research echo/vascular ultrasound machines (including a 3-dimensional echo system), equipment for exercise and pharmacologic stress testing and VO2 analysis. Some of these devices carry developmental software that we are developing in tandem with industry partners. There are 15 networked imaging workstations, including software for measurement of myocardial velocity, strain and backscatter, contrast echocardiography, 3D analysis and automated measurement of vascular structure and function. Data from hospital nuclear and magnetic resonance imaging equipment can be imported using optical disk and additional software is available for each modality.

The Group has postgraduate students and staff from Australia and overseas and offers research opportunities for Cardiology trainees (M.Phil or Ph.D), medical students (joint MB/PhD) and science graduates (Ph.D). Students are enrolled in the Department of Medicine and must meet appropriate admission criteria. Enquiries regarding the groups’ activities should be directed to Professor Tom Marwick (tmarwick@soms.uq.edu.au).

Current Research Activities

Main Areas of Research

Evaluation of myocardial structure using ultrasound backscatter and tissue Doppler. Changes in the nature of the returning sound waves may be a marker of the underlying tissue characteristics. This work has been used to identify structural changes supporting the presence of a diabetic cardiomyopathy, as well as pre-clinical changes consistent with fibrosis in hypertensive patients.

Quantification of echo techniques for detection of myocardial ischemia, using tissue Doppler techniques to measure myocardial strain and velocity. This has generated unique diagnostic approaches and further developments seek to use these techniques to access the response of myocardium to various metabolic interventions including improved diabetic control.

Use of high frequency ultrasound to follow the progression of abnormal vascular structure and function. The unique aspect of this work is the use of developmental edge-tracking software for objective quantification of vessel dimensions. These studies focus on patients with diabetes and renal disease as well as patients with heart failure. We have recently completed two large-scale interventional studies that examine factors influencing vascular function and thereby progression of atherosclerosis. With the arrival of Associate Professor Karam Kostner, this will now
interface with his expertise in lipid management, especially novel plasma markers of atherosclerosis (lipoprotein (a), markers of complement activation and various apolipoproteins).

Evaluation of myocardial perfusion using contrast echocardiography. This work is unique in Australia and promises to offer a new tool to improve the detection of myocardial ischemia, as well as coronary patency and myocardial viability after heart attacks.

Assessment of myocardial viability.
Use of echocardiography to improve clinical decision-making (mitral regurgitation, peripheral vascular disease).
New techniques of image display and recording to improve the efficiency of echocardiography and develop tele-echocardiography in Australia.

Clinical Trials
Centres of Clinical Research Excellence – studies of cardiovascular effects of lifestyle and specific therapies for diabetes, hypertension, renal failure and obesity.
Progression of CAD in end-stage renal failure.
Assessment and management of cardiac risk at noncardiac surgery.
Use of perhexilene to improve cardiac function in viable myocardium.
Importance of transmural distribution of scar to the diagnosis of myocardial viability.
New techniques for quantitation of regional LV function.
Echocardiographic and biochemical responses to anti-fibrotic therapy in LVH.
Non-BP dependent adverse cardiovascular effects and genetic aspects of aldosterone excess.
NHMRC CTC: FIELD substudies on vascular structure and function (1999 –).
Bristol-Myers Squibb –I-PRESERVE (2002 –).
Boehringer-Ingelheim – ONTARGET study and MRI substudy co-investigator (2002 –).
NIH – HAT (home automatic defibrillator) study.
Pfizer GEMINI Study (Polypill containing Atorvastatin and Amlodipine, 2004 – 2005).

Patents
“Apparatus and method for early detection of Cardiovascular Disease using Vascular Imaging” (Provisional patent 2003904100)

Financial Support
Current NHMRC Grants
$400,000, Centres of Clinical Research Excellence. (T H Marwick)
$160,000, STRATIFY study (peri-operative risk). (T H Marwick)
$120,000, Efficacy and mechanisms of exercise training in diastolic heart failure. (T H Marwick)

Other Grants
$60,000, National Heart Foundation of Australia, Impact of perhexilene in viable myocardium. (T H Marwick)
$50,000, National Heart Foundation of Australia, Echo substudy of the IDEAL trial. (T H Marwick)
$80,000, National Health and Medical Research Foundation of Australia, Development of quantitative tools for assessment of regional cardiac function by echocardiography. (T H Marwick)
$80,000, National Health and Medical Research Foundation of Australia, Importance of transmural distribution of viable myocardium to outcome after revascularization. (T H Marwick)

Other Sources
AstraZeneca, UNIVERSE study, Study group.
Bristol-Myers Squibb, I-PRESERVE study, Study group.
Boehringer-Ingelheim, ONTARGET study and MRI substudy, Study group.
Pfizer, GEMINI study. (KM Kostner)
Pfizer, ILLUMINATE study. (KM Kostner)
Pronova, Lp(a) Fosinopril Study. (KM Kostner)
BMS, Lp(a) Fosinopril Study. (KM Kostner)
Pfizer, Omega-3 ARB Study. (KM Kostner)
Publications

Journal Articles


Marwick TH, Case C, Leano R, Short L, Baglin T, Cain C, Garnary P. Use of tissue doppler imaging to facilitate the prediction of events in patients with abnormal left ventricular function by dobutamine echocardiography. Am J Cardiol 2004;93:142-146.


Mottram PM, Haluska B, Yuda S, Leano R, Marwick TH. Patients with a hypertensive response to exercise have impaired systolic function without diastolic dysfunction or left ventricular hypertrophy. J Am Coll Cardiol 2004;43:848-53 (Commentary in letters to the editor).


Published Abstracts


Smart N, Haluska B, Jeffries L, Marwick TH. Myocardial strain predicts the response to...


Smart N, Marwick TH. Exercise training programmes improve survival and delay hospital admission in people with chronic heart failure. Jnl Evidence-Based Health Care 2004. (in press)

Lectures and Presentations

Professor Tom Marwick


“Coronary artery distribution and stress echocardiography”. Queensland DMU preparation course (Faculty) Wesley Hospital, Brisbane; May, 2004.


ASEANZ CV and Lipid Forum (Chair, Organizing committee), Melbourne, June, 2004.
Awards

**Professor Tom Marwick**

EuroEcho lecture, European Society of Echocardiography 2003

**Neil Smart**

Finalist, Affiliate Prize, Cardiac Society of ANZ

**Brian Haluska**

Finalist, Affiliate Prize, Cardiac Society of ANZ

**Phillip Mottram**

National Heart Foundation Scholarship 2002-5 "Cardiac fibrosis and the Genesis of Diastolic Heart Failure"

Public Service Relevant to Research

**Professor Tom Marwick**

Grant/promotions Reviewer, NHMRC grant reviewer

Grant/promotions Reviewer Chair, National Heart Foundation Research Committee

Committee Member, Chair, Scientific Committee, Cardiac Society of Australia & NZ meeting, 2004

Committee Member, Echo guidelines committee, Cardiac Society of Australia & NZ

Committee Member, Cardiovascular Health Advisory group, National Heart Foundation

Committee Member, Medicare Services Advisory Committee, Department of Health and Aged Care

Committee Member, Cardiac Imaging group, Department of Health and Aged Care

Committee Member, Health Sciences Faculty Research Committee

Editorial Reviewer, Annals of Internal Medicine

Editorial Reviewer, American Journal of Cardiology

Editorial Reviewer, American Journal of Medicine

Editorial Reviewer, American Heart Journal, Editorial Board

Editorial Reviewer, Heart, Editorial Board

Editorial Reviewer, Circulation

Editorial Reviewer, European Heart Journal

Editorial Reviewer, European Journal of Echocardiography, Editorial Board

Editorial Reviewer, Journal of the American College of Cardiology

Editorial Reviewer, Journal of the American Medical Association

Editorial Reviewer, Journal of the American Society of Echocardiography, Editorial Board

Editorial Reviewer, Internal Medicine Journal

Editorial Reviewer, Korean Journal of Cardiovascular Disease Editorial Board

Annual Scientific Sessions Reviewer, American College of Cardiology

Annual Scientific Sessions Reviewer, American Heart Association

Annual Scientific Sessions Reviewer, American Society of Echocardiography

Annual Scientific Sessions Reviewer, American Heart Association

Annual Scientific Sessions Reviewer, Cardiac Society of Australia & NZ

Annual Scientific Sessions Reviewer, European Society of Cardiology

**Associate Professor Kostner**

Grant/promotions Reviewer, NHMRC grant reviewer

Committee Member, Chair, Scientific Committee, German Clinical Lipidology Society 2003

Committee Member, Scientific Organizing Committee, German Clinical Lipidology Society 2004

Committee Member, Scientific Organizing Committee, World Congress Clinical Nutrition, Brisbane, 2004

Committee Member, Austrian Society Cardiology, founding and nucleus member of section: Atherosclerosis Thrombosis and Vascular Biology

Committee Member, Lipid Advisory Board Pfizer

Committee Member, Lipid Advisory Board MSD

Committee Member, Australian Egg Research Council

Editorial Reviewer, European Journal of Clinical Investigation Editorial Board

Editorial Reviewer, Atherosclerosis

Editorial Reviewer Atherosclerosis Thrombosis Vascular Biology

Editorial Reviewer, European Heart Journal

Editorial Reviewer, Journal of Lipid Research

Editorial Reviewer Clin Chim Acta

Editorial Reviewer, Heart

Editorial Reviewer, Lipids

Editorial Reviewer, Journal of Lipid Research

Editorial Reviewer, Austrian Journal of Cardiology Editorial Board

Annual Scientific Sessions Reviewer, European Society of Cardiology

Annual Scientific Sessions Reviewer, German Society Clinical Lipidology

Annual Scientific Sessions Reviewer, World Congress Clinical Nutrition

Post Graduate Students

**Dr R Fathi**, PhD, Completed in 2004

**Dr B Fang**, PhD, Completed in 2004

**Dr P Mottram**, PhD, Completed in 2004

**Dr C Nelson**, MPhil, Completed in 2004

**Mr N Smart**, PhD

**Dr S Moir**, PhD

**Dr L Hanekom**, PhD

**Dr D Rakhit**, MPhil

**Dr C Wong**, PhD

**Mr B Haluska**, PhD

Post Doctoral Fellows

**Dr Yeong Cho**, MD, Seoul, Korea, 2004-6

**Dr Malcolm Burgess**, MD, Liverpool UK, 2004-6

ASEANZ CV and Lipid Forum (Chair, Organizing committee), Melbourne, June 2004.


"Tissue imaging with echo"; "Echo self-assessment program" (Plenary sessions); Scientific Program Chair. Cardiac Society of Australia and New Zealand, Brisbane, August 2004.

"Diabetic cardiomyopathy" (Plenary session), "Contra - Stress echo: You must have strain rate imaging" (Debate), "Uses of deformation assessment by echo" (Moderator). 25th Congress of the European Society of Cardiology, Munich, August 2004.


"What’s new in stress echo"; "3D echo – Alive, dead or on life support" (Plenary sessions); Scientific Program Chair. Echo Australia, Sydney, October 2004.

"CAD in diabetic patients – detection by Echo" (Plenary session), "Stress echo in CAD" (Moderator). AHA Scientific Sessions, New Orleans; November 2004.

"Advanced echocardiography" (Interactive teaching session). Controversies and the Cutting edge in Cardiology – A 3 day Advanced Cardiology Preceptorship. Alfred/Monash Research and Education Precinct, Melbourne, November 2004.

"Justifying the cost of echocardiography" (Annual EuroEcho lecture); "Lab accreditation in Australia" (Plenary session), "Uses of deformation imaging" (Moderator). 8th EuroEcho, Athens, December 2004.
The Department of Diabetes and Endocrinology at the Princess Alexandra Hospital houses the Centre for Diabetes and Endocrine Research and the Diabetes and Endocrinology clinic.

The Centre for Diabetes and Endocrine Research was established in 2004 and is part of the School of Medicine, University of Queensland. Its mission is to provide cutting edge research, from bench to bedside, for the treatment and prevention of endocrine disorders. The Centre brings together a number of allied research programs in Diabetes, Endocrinology and Metabolism. Its main research interests include Diabetes (Type I and II), Obesity, Cell Signalling, Liver Metabolism, Bone Research, Pregnancy, Functional Genomics and Endocrine Cancers.

The Centre is internationally recognized for research into obesity and is one of the few laboratories in the world to carry out research on human adipose tissue and cells. Research from the Centre has led to the formation of a venture backed, ‘start-up’ company; Adipogen Pty Limited. Adipogen’s interest is the development of novel treatment strategies for obesity and overweight.

The Centre’s inaugural year has been one of growth and innovation. Some of the research highlights for 2004 include the publication of papers on the role of fibroblast growth factor in adipogenesis in the journal “Diabetes” and on the role of IMPDH in cellular lipid storage in the journal “Traffic”. Progress on the adiponectin project has been exceptional during 2004, paving the way for several key publications in 2005. Other highlights include the Trailblazer award to Dr Whitehead, an innovation competition run by University of Queensland’s main commercialisation arm, UniQuest, and also the award to Felicity Newell under the “Growing the Smart State: A PhD Research Funding Program”.

The Diabetes and Endocrinology Department provides a tertiary level in- and out-patient clinical service in diabetes and endocrinology. The service includes consultancy to other departments and services within the hospital and an outreach service every two months to Mt Isa Base Hospital. The clinical service is supported by a laboratory providing a genetic screening service for Australasia for inherited disorders of endocrine tumours and of calcium regulation abnormalities.

Professor Prins, Associate Professors G Macdonald and D McIntyre, Drs T O’Moore-Sullivan, A Russell, C Sullivan, J Nisbet and S Kannan have extensive roles in the education and training of clinicians, scientists, graduate and undergraduate students, involving lectures, tutorials and clinical bedside coaching.

Current Research Activities

Clinical Trials

A multicentre, double-blind, randomised, placebo and active controlled dose range finding study of L-000224715 in Patients with Type 2 Diabetes Mellitus who have inadequate Glycaemic Control.

A 40 week extension to: A Multicenter, Double-Blind, Randomized, Placebo- and Active-Controlled Dose-Range Finding Study of L 000224715 in Patients with Type 2 Diabetes Mellitus who have Inadequate Glycemic Control.
An additional 52 week extension to: Multicentre, Double - Blind, Randomised, Placebo and Active - Controlled Dose Range - Finding Study of L-000224715 in Patients with Type 2 Diabetes Mellitus who have Inadequate Glycemic Control.

Normalisation of calcium and vitamin D status and the effects of SL2911 on the incidence of new vertebral fractures and peripheral fractures in postmenopausal osteoporotic women.

SOTI and TROPOS Phase III Studies Open Labelled Extension.

A double blind, randomized, placebo controlled study to evaluate the effects of different doses of testosterone from a Metered-Dose Transdermal Spray (MTDS®) on sexual function in pre-menopausal women with low libido.

An open-label trial to evaluate the safety and efficacy of fixed dose rosiglitazone/metformin combination therapy in poorly-controlled subjects with Type 2 Diabetes Mellitus.

A 24- month multicentre, open- label, randomized, parallel group, long term safety trial comparing intensive treatment of pulmonary inhaled human insulin with insulin aspart administered s.c., both in combination with NPH, in subjects with Type 1 Diabetes.

Diabetic Retinopathy Candesartan Trials.

A Phase IIb, randomised, double-blind, placebo-controlled study to assess the efficacy, safety and tolerability of 12 weeks treatment with AOD9604 on weight and fat loss in obese adults.

Pioglitazone Versus Placebo in Combination with Insulin Therapy in Patients with Type 2 Diabetes who are Unable to Achieve Adequate Glycemic Control With Insulin Therapy.

Pregabalin Open-Label Extension Trial In Patients With Painful Diabetic Peripheral Neuropathy.

A 7-Month Multicentre, Multinational, Randomised Double Blind Study of the Effect of Mitiglinide in Combination with Metformin Compared to Metformin or Mitiglinide as Monotherapy for the Treatment of Type 2 Diabetes Followed by a 5 Month Open Label Treatment with Mitiglinide-Metformin Combination.

A 12-Week, Parallel-Group, Double-Blind, Randomized, Placebo-Controlled, Multicenter Study to Evaluate the Efficacy, Safety and Tolerability of GW427353B at 10mg, 25mg, 50mg and 100mg, Administered Orally, Once Daily, as Monotherapy in Subjects with Type 2 Diabetes Mellitus.

Effects of Arzoxifene on Vertebral Fracture Incidence and on Invasive Breast Cancer Incidence in Postmenopausal Women with Osteoporosis. Trial to Reduce Cardiovascular Events with Aranesp® (darbepoetinalfa) Therapy: TREAT.
A 24-Week Randomized, Double-Blind, Parallel-Group, Multi-Centre, Placebo-Controlled Study to Evaluate the Efficacy, Safety and Tolerability of Tesaglitazar Therapy when Added to the Therapy of Patients with Type 2 Diabetes Poorly Controlled on Sulphonylurea alone.

A 24-Week Randomized, Double-Blind, Parallel-Group, Multi-Centre, Placebo-Controlled Study to Evaluate the Efficacy, Safety and Tolerability of Tesaglitazar Therapy when Added to the Therapy of Patients with Type 2 Diabetes Poorly Controlled on Metformin alone.

A Phase III 52-Week, Double-Blind, Randomized Comparison of RO2052349 and Avandia® (rosiglitazone) in Drug-Naïve Patients with Type 2 Diabetes Mellitus.

A Study to Evaluate AMG 162 in the Treatment of Postmenopausal Osteoporosis.

A retrospective audit of the management of osteoporosis in patients attending Princess Alexandra Hospital fracture clinic – Bone Projection Project – Phases 1 and 2.

Other Research

The current areas of interest in the Department include:

Characterisation of the role of FGF-1 in human adipogenesis with a view to identify therapeutic targets for the treatment of obesity.

Investigation of the effects of improving insulin sensitivity by lifestyle interventions or drug therapies on markers of vascular and cardiac function, in patients with obesity, T2DM and after renal transplantation.

Investigation of the mechanisms by which insulin receptor substrate-1 (IRS-1) localisation and function is regulated.

Role of IMPDH in fatty acid storage and lipid body dynamics.

Regulation of the Ser/Thr kinase Akt, which plays an important role in many of insulin’s metabolic effects, in human tissues.

Insulin action and signalling in human liver - the effects of obesity, free fatty acids and adiponectin.

Investigation of metabolic differences in omental and subcutaneous adipose tissue by comparing insulin action and signalling, and adipokine release and action in adipose tissue biopsies from patients with and without insulin resistance.

Role of 11b-Hydroxysteroid Dehydrogenase (HSD) in Insulin Resistance.

Investigation of appropriate testing criteria for multiple endocrine neoplasia Type 1 and insights into the epidemiology of the disease.

Identification of novel genes for familial hyperparathyroidism syndrome.

Identification of activating and inactivating mutations of the calcium sensing receptor in patients with familial hyperparathyroidism.

Investigation of the mechanisms of appetite regulation and in particular elucidating mechanisms regulating ghrelin release and in vitro studies investigating the affects of ghrelin on the adipocyte.

Influence of the medium collected from thiazolidinedione-treated adipose tissue explants on the insulin sensitivity of human muscle cells.

Investigation of the relationship between Type 2 Diabetes and chronic liver disease looking at the role of metabolic factors in the development and progression of chronic liver disease.

Improving the success and cost-effectiveness of lifestyle intervention for weight reduction in patients with obesity-related chronic disease.

Investigation of the production of the peptide hormone, Adiponectin, by human fat cells (adipocytes) and its post-translational modification and multimerisation within the secretory pathway of cells.

Investigation of the effects of insulin resistance on hepatic stellate cells and development of cirrhosis in response to liver injury; mechanisms of hepatic carcinogenesis in relation to liver injury; and clinical projects examining symptom profiles and quality of life in liver disease.

Contribution of novel glucose transporters and activated GLUT4 to basal and insulin-stimulated glucose uptake in human subcutaneous and omental adipose tissue.

Study of impaired non-insulin mediated glucose uptake in obesity and pregnancy examining the mechanisms regulating hyperosmolar induced glucose uptake in human adipose tissue.

Exploring the long term consequences of pregnancy related disorders such as pre-eclampsia, the role of ghrelin in appetite regulation in pregnancy, the impact of obesity on maternal and fetal outcomes, and the consequences of increasing maternal age on pregnancy outcomes.
Research - Key to Health

Patents
US Patent Application number: PCT/AU03/00826 entitled “Differentiation modulating agents and uses thereof” (granted)
Australia patent number: PCT/AU 2005/000008 entitled “Differentiation modulating agents and uses thereof” (granted)
US Patent Application number: 60/601797 Filed on 16/Aug/2004 entitled “metabolism modulating agents and uses therefore”

Financial Support
NHMRC Grants
$400,000, NHMRC CCRE Grant. “Centre of Clinical Research Excellence in Cardiovascular Disease and Metabolic Disorders”. (T Marwick)
$70,000, NHMRC project grant. Insulin action and signalling in human liver - the effects of obesity, free fatty acids and adiponectin. (G Macdonald)
$150,000, NHMRC partnership grant. The Diabetes Health Research Program - A Collaborative research-based program of education, intervention and scientific discovery in Type 2 Diabetes. (J Prins)

Other Grants
$90,000, University of Queensland Mayne Bequest Research Programme. A Research Program in the Metabolic Syndrome. (J Prins)
$240,000, Biotechnology Innovation Fund. FGF-1 research. (J Prins)
$40,000, Diabetes Australia Research Trust 2004. FGF-1 research. (L Hutley)
$40,000, Diabetes Australia Research Trust 2004. IMPDH. (J Whitehead)
$36,000, George Weaber Foundation. IRS-1. (J Whitehead)
$65,000, Lions Senior Medical Research Fellowship. Investigation into Insulin Action and Insulin Resistance. (J Whitehead)
$17,000, Novo-Nordisk - Regional Diabetes Support Scheme Grant 2004. The direct and indirect effects of a dual PPARα/PPARγ agonist on glucose uptake and insulin action in human skeletal muscle; a study of adipose tissue and skeletal muscle “cross-talk”. (T O’Moore Sullivan)

$37,033, Australian Research Council. Depression and Diabetes. (J Kenardy, J Prins, C Leong)

Publications
Journal Articles

Published Abstracts
Lang CA, Batitsoutd D, Garrett LE, Cooksey WGE, Dunne MP, Macdonald GA. Impairments in quality of life due to symptom clusters in people living with chronic hepatitis C infection are not identified by the Short Form-36 (SF-36) Australian Gastroenterology Week - Brisbane 2004 Journal of Gastroenterology and Hepatology (2004): 19 (Suppl), A257.

Patents
US Patent Application number: PCT/AU03/00826 entitled “Differentiation modulating agents and uses thereof” (granted)
Australia patent number: PCT/AU 2005/000008 entitled “Differentiation modulating agents and uses thereof” (granted)
US Patent Application number: 60/601797 Filed on 16/Aug/2004 entitled “metabolism modulating agents and uses therefore”


Prins JB. Fat as an Endocrine Organ. Journal of Molecular and Cellular Cardiology Vol 37 (1) July 2004 p331. Abstract S29A.


Book Chapters
Prins JB. Chapter: Adipocytes & their secretory products. Advances in Translational Medical Science: Lipids and atherosclerosis (Packard, Rader, eds.). (In press)

Articles Accepted for Publication


Lectures and Presentations
Professor Prins
In 2004 Professor John Prins gave invited presentations at four overseas/international and six national scientific meetings and for 2005 he is an invited speaker to a number of National meetings and the European Association for the Study of Disease meeting in Athens.

Fat as an Endocrine Organ. XVIII World Congress International Society for Heart Research, August 2004.

Dr Hickman
Lifestyle interventions for weight reduction – how do we make them better. Australian Gastroenterology Week, Brisbane, October 2004.


The role of obesity in the progression of chronic liver disease. Queensland Institute of Medical Research Seminar Series, January 2004.


Dr Hutley
A Career in Medical Research.

Lecture/information sessions to Year 11 secondary school students interested in science as a career. Centre for Diabetes and Endocrine Research, University of Queensland, November 2004.

FGF-1 in Human Adipogenesis. Diabetes Educators Meeting, Department of Diabetes and Endocrinology, Princess Alexandra Hospital, 2004.


Medical research at Princess Alexandra Hospital – Centre for Diabetes and Endocrine Research. Series of six presentations / information sessions to benefactors of the Princess Alexandra Hospital Foundation. Research today – treatments for the future. Beenleigh Rotary group, June 2004. (Invited Speaker)

Lang


Associate Professor McIntyre
Diabetes in Pregnancy, Endocrine Society of Australia seminar meeting, Gold Coast, April 2004.


Dr O’Moore-Sullivan
Obesity and Coronary Artery Disease. XVII World Congress International Society for Heart Research, August 2004.

Obesity and Coronary Artery Disease. XVIII World Congress International Society for Heart Research, August 2004.
Post Graduate Students

Tony Russell,
PhD, Completed in 2004
Su Mien Yeoh,
MPhil, Completed in 2004
Leonie Callaway,
PhD, Commenced in 2004
Hayley Charlton,
PhD, Commenced in 2004
Matthew Stephenson, PhD,
Commenced in 2004
Yang Zhe, PhD, Commenced in 2004
Trisha O’Moore-Sullivan, PhD
Janet Warner, PhD
David Chambers, MBBS/MPhil
Alison Sweet, PhD
Felicity Newell, PhD
Jenny Grant, PhD
Michael Keogh, MPhil
Louise Smith, PhD
Hua Su, PhD
Sherry Ngu, PhD
Carolyn Lang, PhD
Pengcheng Li, PhD

Awards

Dr Jon Whitehead
Trailblazer Award, Inhibition of an enzyme
involved in the process of increasing fat

Felicity Newell
Growing the Smart State: A PhD Research
Funding Program. Role of FGF-1 in human

Public Service Relevant
to Research

Professor John Prins
Reviewer of manuscripts for Diabetes, Journal of
Endocrinology, AJP, AJPhysiol, Diabetologia, JCEM, DOM, Endocrinology and Diabetes. Reviewer of grants for
NHMRC, DART, NHF, The Canadian Diabetes
Association and the Hong Kong MRC and
NZ MRC. He has in recent years sat on
NHMRC and Eli Lilly GRPs. Sits on 2 editorial
boards. Chair of Adipocyte track Scientific
organising committee for the International
Congress of Obesity. 2006.

Dr Jonathan Whitehead
Reviewer of NHMRC and DART grants,
reviewer of manuscripts for leading journals
including Diabetes, JBC, JCEM

Dr Anthony Russell
Organizer of the South East Queensland
Endocrinology Group seminar series. Chair
of Local Organizing Committee for the
Endocrine Society of Australia Annual
Seminar Meeting, Marnriot Resort, Gold
Coast, May 2004. Member Local Organizing
Committee for the South East Queensland
Endocrinology Group Clinical Week-end,
O’Reilly’s Resort, July 2004

Dr Ingrid Hickman
Invited member of the Editorial board of
“Nutrition and Dietetics” Journal of the
Dietitian’s Association of Australia (Associate
Editor)

Dr Louise Hutley
Reviewer of NHMRC grants, reviewer of
manuscripts for scientific journals including
American Journal of Physiology and Diabetic
Medicine

Dr David McIntyre
Reviewer of NHMRC, DART, Eli Lilly Diabetes
and Endocrinology, Royal Women’s Hospital
Melbourne, and New Zealand Government
Lottery Health Research grants. Reviewer of
manuscripts for journals including Australian
and New Zealand Journal of Obstetrics and
Gynaecology, European Journal of
Endocrinology, Clinical Endocrinology, Journal of Clinical Endocrinology and
Metabolism, and Diabetic Medicine.
Commitees include: Steering committee,
Health Connect Diabetes Project,
Queensland Health; Steering committee,
National Diabetes in Pregnancy Audit
Project; President, Australasian Diabetes in
Pregnancy Society Committee; Co - Chair,
National Diabetes in Pregnancy Advisory
Committee; National Diabetes
“Breakthrough” Collaborative; International
Association of Diabetes in Pregnancy Study
Groups steering committee; Regional
Examiner, Royal Australasian College of
Physicians Clinical Examination, Mater
Hospital.

Research - Key to Health
In 2004 the Centre for Immunology and Cancer Research underwent significant expansion with the appointment of several new senior academic staff to the immunology and to the cancer biology program. These appointments from within Australia and overseas have introduced new expertise in molecular and cellular biology, cellular immunology, and development of therapeutics and should result in strengthening of translational research in the centre. The Centre has had a productive year as measured by grants received, and papers published.

Development by the Dendritic Cell Biology Group (Professor Ranjeny Thomas) of a method for suppressing autoimmune responses by modulation of dendritic cell function has the potential to improve treatment of diabetes and rheumatoid arthritis. Results of a phase 1 study of a cervical cancer therapeutic undertaken by the Immunotherapy Group (Professor Ian Frazer) in conjunction with Commonwealth Serum Laboratorie showed that immune responses of the type predicted by animal models to be necessary for effective immunotherapy can be induced by a protein and adjuvant vaccine in patients with cervical precancer.

The Cancer Cell Biology group continues to make significant inroads into the understanding of cancer pathogenesis. Studies by the Epithelial Pathobiology Group (Associate Professor Nick Saunders) have demonstrated several key regulators of how skin and head and neck cancers are initiated and progress, and work on signalling pathways relevant to cell differentiation has revealed new target molecules of the E2F family for specific cancer therapy. Observation in real time of cancer cell growth and division by the Cell Cycle Group (Dr Brian Gabrielli) allowed demonstration of the key role of histone deacetylase inhibitors in the regulation of normal and abnormal cell growth. The Molecular Virology Group (Dr Nigel McMillan) has demonstrated the efficacy of siRNA molecules in regulating the abnormal growth of epithelial cells transformed by the oncogenic human papillomaviruses in vitro and is now extending this work to in vivo studies. The Molecular Oncogenesis Group recently established by Professor Tom Gonda has embarked on development of an approach to the systematic study of a role in regulation of cell transformation in cancer for each of the entire range of genes comprising the human transcriptome.

**Current Research Activities**

**Molecular Oncogenesis Group**

Function and characterisation of the Schlafen gene family – potential regulators of, haemopoietic cell proliferation, differentiation and function.

Role of Myb in oestrogen receptor-positive breast cancer.

Identification of oncogenes in myeloid leukaemia by retroviral expression cloning.

Development of an arrayed retroviral expression library amenable to high-throughput screening (with B. Gabrielli, S. Grimmond (IMB), S.Barry (University of Adelaide).

**Epithelial Pathobiology Group**

The Epithelial Pathobiology Group has the following three aims:
To understand the molecular basis for squamous differentiation.
Identify how this process is disrupted in squamous cell carcinoma development.
To exploit this knowledge in the development of novel therapeutic strategies.

In addressing these aims, the Group have the following specific projects:
- Examining the role of E2F in SCC development and their potential role in cancer therapy.
- Define the role of the glutathione peroxidases in SCC development.
- Identifying the molecular events that initiate squamous differentiation.
- Exploring the use of histone deacetylase inhibitors in the treatment of head and neck squamous cell carcinoma.
- Exploring the use of cancer profiling as a clinical tool for aiding in patient treatment choice.

Cell Cycle Group
Investigation of the function of the unique form of mitotic MEK1.
Identification of how histone deacetylase inhibitors disrupt mitosis.
Investigation of the role of cyclin A/cdk2 in regulation of G2/M transition.
Investigation of the molecular responses to ultraviolet radiation in skin and how disruption of these contributes to melanoma.

Molecular Virology Group
Using microarray technology to develop a genetic profile of progression in chronic lymphocytic leukaemia.
Investigating the role of the papillomavirus oncogenes in cancer.
Developing novel therapies based on RNA interference for advanced cervical cancer.
Investigating viral evasion of the interferon response.

Epithelial Pathobiology
Associate Professor Nicholas A Saunders
Dr Claudia Popa
Dr Maggie Serekwo-Auret
Mr Liam Barnes
Ms Sarina Cameron
Ms Alison L Dahler
Ms Louise Knop
Ms Lani Hardy
Ms Mei-Fong Ho
- Induction of antigen-specific tolerance through inhibition of RelB function in dendritic cells.
- Particulate systems for the co-delivery of antigen with immunomodulator for the treatment of Autoimmune Disease.
- Migration and differentiation of dendritic cells and monocytes in inflammatory arthritis.

Immunotherapy Group
Clinical Trials
A phase 1b trial of HPV VLPs as immunotherapy for genital warts.

Other Research
Animal Models of immunotherapy for cancer and skin disease.
Molecular and cellular basis of tolerance to peripherally presented antigen.
Codon usage as a determinant of targeted protein expression.
Dr Liliana Munoz
Mr Danny Rickwood
Ms Chung Fai Wong

Cell Cycle Group
Dr Brian Gabrielli
Dr Heather Beamish
Dr Leonore De Boer
Dr Frances Stevens
Dr Charlotte Widberg
Ms Nichole Giles
Dr Andrew Burgess
Ms Robyn Warrener
Mr Todd Shelper

Biological Research Facility
Ms Nicole Broad
Ms Kerry Fagan
Ms Michelle Martinez
Ms Kelly Minto

Administration
Mr Anton Sanker
Mr Paul Kristensen
Ms Kathryn Peel
Ms Janine Richards
Ms Allison Varley
Mr Patrick Verhoeven
Mr Beau Mason

Patents
Modified Papilloma Virus L2 Protein and VLPs Formed Therefrom (Australia, Europe, Japan, New Zealand, Singapore, South Korea, United States) WO95/20659
Papilloma Virus Vaccine (Australia, Europe, Greece Singapore South Korea United States) WO93/02184
Papillomavirus Polyprotein Constructs (Australia, New Zealand, United States, South Africa) WO97/05164
Recombinant Papilloma Virus L1 (Australia, Germany, Europe, Greece, Netherlands, New Zealand, Singapore, United States) WO95/31476
Subunit Papillomavirus Vaccine and Peptides for Use Therein (Australia, Australia, Switzerland, Germany, Europe, France, United Kingdom, Italy, South Korea, United States) WO92/10513
Variants of Human Papillomavirus Antigen (Australia, New Zealand, United States, South Africa, United States) WO96/19496

Nucleic Acid Sequence and Method for Selectively Expressing a Protein in a Target Cell or Tissue (Australia, United States) WO99/02694
Treatment of Papillomavirus Infections (Australia, South Africa) WO00/35478
Method and Polynucleotides for Determining Translational Efficiency of a Codon (Australia, New Zealand, United States) WO97/05164

Financial Support
Current NHMRC Grants
$99,250, Histone Hyperacetylation affects G2/M cell cycle transition. (Brian Gabrielli)
$152,500, What Regulates G2 Phase. (Brian Gabrielli)
$100,000, The role of CD4+ T cells in the tumour killing by CD8+ memory T cells. (Germain Fernando)
$70,440, Optimising immunity towards cancers by vaccination. (Germain Fernando)
$87,000, Matching between Codon usage and tRNA abundance determines the expression of targeting genes in mammalian cells. (Kong-nan Zhao)
$160,880, Effective immunotherapy for HPV associated cervical cancer precursor lesions. (Ian Frazer)
$109,875, Immunoregulatory Immune Responses to a Peripherally Presented Tumour Antigen. (Ian Frazer)
$380,915, NHMRC/WELLCOME TRUST; Study of HPV 6L virus like particles as therapeutic vaccine for genital warts and recurrent respiratory papillomatosis. (Ian Frazer)
$141,750, Development of a novel therapy for the treatment of Epidermal Squamous Cell Carcinoma. (Nicholas Saunders)
$99,250, Treatment of Vially-Induced Cancers by RNA Interference. (Nigel McMillan)
$178,160, HPV and cervical carcinoma: signalling and clinical responses to interferons. (Nigel McMillan)
$163,125, Phase 1 clinical trial of autologous dendritic cells to induce antigen-specific tolerance. (Ranjeny Thomas)
$140,000, Migration and differentiation of dendritic cells and monocytes in inflammatory arthritis. (Ranjeny Thomas)
$140,660, Induction of antigen-specific tolerance through inhibition of RelB function in dendritic cells. (Ranjeny Thomas)

Other Grants
$117,691, ARC, Function of the unique mitotic form of MEK. (Brian Gabrielli)
$72,030, Queensland Cancer Fund, Mechanism of UV Induction of the melanoma susceptibility gene product P16CDKN2A in skin. (Brian Gabrielli)
$65,000, LIONS, Improving vaccines against Viruses and Tumours; Optimising the cytotoxic T lymphocyte response. (Graham Leggatt)
$72,030, Queensland Cancer Fund, Evaluating therapeutic interventions to overcome tolerance to tumour antigen, Ian Frazer

$70,000, Queensland Cancer Fund, Using yeast model to study the functional roles of three early genes in the life cycle of Bovine Papillomavirus Type 1. (Kong-nan Zhao)

$87,658, AICR, Characterisation of a TGFb1 independent but SMAD7 dependent pathway regulating squamous differentiation. (Nicholas Saunders)

$153,551, Garnett Passe/ Roden Williams Memorial Foundation, Developing E2F inhibitors as a potential therapeutic strategy for the treatment of head and neck squamous cell carcinoma. (Nicholas Saunders)

$150,000, Princess Alexandra Hospital Cancer Collaborative Group: Queensland Cancer Fund Collaboratives research grant funds. (Nicholas Saunders)

$39,500, Wesley, Predicting clinical response of osteogenic sarcoma to chemotherapy using gene expression profiling. (Nicholas Saunders)

$35,000, University of Queensland, The role of PKR in chronic lymphocytic leukemia. (Nigel McMillan)

$83634, University of Queensland Equipment Grant, Measurement of gene expression in medically important diseases. (Nigel McMillan)

$62,106, ISUS, Dendritic cell therapy for arthritis project. (Ranjeny Thomas)

$58,000, University of Queensland, Particulate systems for the co-delivery of antigen with immunomodulator for the treatment of Autoimmune Disease. (Ranjeny Thomas)

$150,000, Arthritis Queensland. (Ranjeny Thomas)

$11,950, University of Queensland Start-up, Induction of peripheral tolerance in memory CD8+ T cells by dendritic cells. (Raymond Steptoe)

Other Sources
$3.2 million, commercial income
Publications

Journal Articles


Book Chapters

Lectures and Presentations
Professor Ian Frazer
Invited Speaker 18th World Conference on Health Promotion and Health Education. Melbourne, May 2004.
Plenary Speaker Otago University Medical Research Week. July 2004.
Invited Speaker World conference on Vaccine adjuvants and delivery systems. Prague, September 2004.

Dr Brian Gabrielli
(Invited Seminars)
Mater Medical Research Institute, Brisbane March 2004.
Children’s Medical Research Institute, Westmead May 2004.
Peter MacCallum Cancer Institute, Melbourne October 2004.

Dr Nigel McMillan


Professor Thomas Gonda
(Invited Seminars)
Mater Medical Research Institute, Brisbane, May
Department of Biochemistry and Molecular Biology, University of Queensland, Brisbane, Queensland, July
School of Health Sciences, Griffith University, Southport, Queensland, September

Post Graduate Students
Andrew Burgess, PhD, Completed in 2004
Angus Thompson, PhD, Completed in 2004
Chung Fai Wong, PhD, Completed in 2004
Brent Neumann, PhD, Commenced in 2004
Nicole Giles, MPhil, Commenced in 2004
Suad Hannawi, PhD, Completed in 2004
Megan Bywater, Honours, Completed in 2004
Yvette Drabsch, Honours, Completed in 2004
Felicia Goh, Honours, Completed in 2004
Sarah Cameron, Honours, Completed in 2004
Judy Peng, PhD
Daniel Clarke, PhD
Tom Fothergill, PhD
Aaron Irving, PhD
Lisa Putral, PhD
Robyn Warrender, PhD
Sharmal Narayan, PhD
Dora Chan, Honours
Fang Zhou, MPhil
Rachel De Kuyver, MPhil

Awards
Professor Ian Frazer
Fellowship, Australian Academy of Science-2004
Fellowship, Australian Academy of Science Technology and Engineering - 2004
Curtin Medal, Australian National University, -2004

Public Service Relevant to Research
Professor Ian Frazer
Vice President, Cancer Council of Australia Board member and Chair, Medical and Scientific Committee, Queensland Cancer Fund
Member, Program Grants Committee, NHMRC
Chair, JDRF/NHMRC Program Grants Committee
Editorial Board, Virology.

Dr Brian Gabrielli
NHMRC Oncology Grant Review Panel
Princess Alexandra Hospital Centres for Health Research – Research Committee
CICR Postgraduate Co-ordinator

Professor Ranjeny Thomas
Viewpoint Editorial Team, Arthritis Research
Editorial Board, Wiener Klinische Wochenschrift
Primary Reviewer, Journal of Immunology
Reviewer NHMRC grants
Ad hoc Reviewer for approximately 10 other national and international granting bodies, including Wellcome Trust International, Whitehead Fellowships, New York, Juvenile Diabetes Research Foundation International (Telethon/JDRF)
Scientific Programme Committee, Australian Rheumatology Association
Scientific Committee Arthritis Foundation of Australia

Professor Thomas Gonda
Member, Australian Research Council
College of Experts on Biological Sciences and Biotechnology (2003–)
Member, National Breast Cancer Foundation Expert Group on Strategic Planning (2003)
Chemical Pathology, Princess Alexandra Hospital, is part of Queensland Health Pathology Service. The Department is actively involved in research pertaining to the development and implementation of new tests appropriate to state of the art clinical need. The Department has recently developed and introduced the analysis of plasma free metanephrines a test which is unique to Princess Alexandra Hospital in Australasia and serum free light chains. The Department has partnerships with many clinical units for provision of testing as part of clinical trials.

Current Research Activities
Development of HPLC method for 25-hydroxy-Vitamin D.
Use of rapid cortisol assay during adrenal venous sampling.
Clinical utility of a ProACTH immunoassay.

Financial Support
Cortisol Assays during Adrenal Venous Sampling Procedure, Gregory Ward, SERTF, QHPSS
HPLC Analysis of 25 Hydroxy Vitamin D, Dr Julia Chang, Greg Ward
Brett McWhinney, SERTF, QHPSS
Clinical Utility of ProACTH immunoassay, Dr Julia Chang, Greg Ward, QHPSS

Publications

Journal Articles

Published Abstracts


Lectures and Presentations

G Ward
Pitfalls in Endocrine Testing. ESA Seminar Meeting, Marriott Resort, Gold Coast, 1 May 2004. (Invited Speaker)

J Tate
Protein Chemistry in Multiple Myeloma and Related Disorders. AIMS Queensland Branch Annual Meeting on 28th August, 2004. (Invited Speaker)

The study of the pharmacokinetics and pharmacodynamics of tacrolimus, mycophenolate and sirolimus has progressed. Population pharmacokinetic studies have been performed in a range of Australian transplant groups with the assessment of covariates which may account for variability and be of relevance in dosage prediction. A mass spectrometric method has been developed for the measurement of free mycophenolic acid concentrations and the effect of hypoalbuminaemia investigated. Drug interaction studies with atorvostatin and tacrolimus and iron and mycophenolate have been completed. With the addition of a new mass spectrometer a more rapid and sensitive method has been developed for tacrolimus assays.

Pharmacodynamic studies have examined clinical outcomes including rejection, specific toxicities and infection.

Drug utilisation evaluation and pharmacovigilance studies have included an audit of clopidogrel use and publication of the largest series to date on pancytopenia with leflunomide.

**Current Research Activities**

- Development and evaluation of high-throughput HPLC-MS/MS methods for immunosuppressant drugs. (PJ. Taylor, PI. Pillans, D Cooper, and M Morris)

- Development and clinical evaluation of new HPLC-MS/MS method for aldosterone. (PJ. Taylor, PI. Pillans, D Cooper, M Stowasser, and M Morris)

- Measurement of silibinin in mouse plasma by HPLC-MS/MS. (C Cheung, PJ. Taylor, DW Johnson)

**Clinical Trials**

Investigation of a relationship between free mycophenolic acid and toxicity early post-renal transplant. Departments of Clinical Pharmacology and Nephrology, Princess Alexandra Hospital and School of Pharmacy, University of Queensland, St Lucia.
Financial Support

Current NHMRC Grants

$135,000, Project Grant. "Pharmacokinetic and pharmacodynamic studies of the newer immunosuppressants." (Tett SE, Taylor PJ, Lynch SV, Duffull S, Pillans PI)

Other Sources

$200,000, Waters Corp, Manchester, UK. Development of HPLC-MS/MS assays of clinical significance and utility. (P Taylor)

Publications

Journal Articles


Published Abstracts


Articles Accepted for Publication


Lectures and Presentations

Mr Paul Taylor

Hong Kong Society of Clinical Chemistry, Hong Kong, September 2004, Workshop: Mass spectrometry in clinical applications.

Oral Presentation (Invited Speaker): A guide to development of quantitative HPLC-MS methods

Hong Kong Society of Clinical Chemistry, Hong Kong, September 2004, Workshop: Mass spectrometry in clinical applications.

Oral Presentation (Invited Speaker): Therapeutic drug monitoring of immunosuppressant drugs by HPLC-MS (MS)


Public Service Relevant to Research

Dr Peter Pillans

Australian Drug Evaluation Committee

Australian Adverse Drug Reactions Advisory Committee

Queensland Hospitals Drugs Advisory Committee

Mr Paul Taylor

Editorial Board: Therapeutic Drug Monitoring Committees: Councillor, International Association of Therapeutic Drug Monitoring and Clinical Toxicology
Clinical Services Evaluation Unit

The Clinical Services Evaluation Unit is a unit within the Safety, Quality and Risk Management directorate of the hospital. The mission of the Clinical Services Evaluation Unit is to improve clinical outcomes, efficiency of health services and patient satisfaction experienced by users of the services offered by the Princess Alexandra Hospital Health Services District. In 2004, the Unit implemented a diverse, hospital-wide program of clinician-led initiatives aimed at improving quality of patient care across a range of clinical disciplines.

The major objectives of the Clinical Services Evaluation Unit are to:

- Promote the teaching, research and practice of evidence based practice and clinical service improvement.
- Provide methodological and analytical expertise in the design, implementation and evaluation of clinical care improvement methods and programs.
- Provide clinicians and managers with an information search and dissemination service that promotes awareness and adoption of innovative methods for optimising quality of care.
- Assist clinicians and managers in evaluating costs, quality and outcomes of new health care technologies and services.

Current Research Activities

The role of the Clinical Services Evaluation Unit is to facilitate evidence based continuous practice improvement by assisting clinical groups to develop well designed practice improvement initiatives with measurable outcomes. The Unit aims to improve standards of health service delivery by: a) undertaking research and implementation, assisting clinical groups with their practice improvement research by helping with development of methods, b) data management and data analysis, and c) funding groups up to $10,000 to carry out small projects.

Projects undertaken in 2004:

- Audit of quality of care of patients admitted with acute exacerbations of Chronic Obstructive Pulmonary Disease. Dr L Garske, (Respiratory, Internal Medicine, Nursing and Allied Health)
- Audit of the appropriateness of use of CTPA in diagnosing pulmonary thromboembolism audit. Drs I Scott, S Lawrence, P Scally (Respiratory, Radiology and Emergency Department)
- Audit of the appropriateness of pathology ordering audit and ordering review. (Clinical Services Evaluation Unit, Hospital Executive)
- Evaluation and optimisation of nursing care and assessment plans implementation and evaluation. V Roche, J Edwards, G Sutton (Nursing)
- Enhancing the use of advance care planning and advance health directives guideline revision. C Cartwright, A Hickey (Social work, Clinical Services Evaluation Unit, University of Queensland)
- Development of a clinical algorithm for determining indications for percutaneous gastrostomy tube insertion algorithm on decision to insert and audit of use in hospital. J Harper, P Juffs, K Holzhauser, A Hickey, M Ryan, M Williams, N Burmeister (Radiology, Internal Medicine, Speech Pathology, Nutrition and Dietetics, Radiation Oncology)
Optimising medical and nursing care of patients with dementia admitted to on acute medical wards. Cofunded by Nursing Education Research Unit $5,000 and Clinical Services Evaluation Unit $5,000, Jessica Schluter, Kerri Holzhauser, Nursing 5a & 5b

Extended care project (Enhancing systems of acute and post-acute care of elderly patients with chronic disease management for elderly patients), Deb Podbury (Nursing, Medicine, Community, Executive)

Optimising in-hospital care of patients with acute cardiac disease. I Scott (Cardiac Collaborative)

Audit of the appropriateness of treatment for hypoglycaemia treatment audit. F McIver, (Nursing)

Audit of the appropriateness of patient attendance at medical specialty outpatient clinics. I Scott, Annabel Hickey (Division of Medicine)

Clinical Services Evaluation Unit Funded Projects (Upto $10,000)


Improving cardiac resuscitation outcomes by identifying variables that impact on patient survival and implementing relevant recommendations that will optimise patient outcomes. Robyn Peters, Mary Boyd, Cardiac resuscitation, 16/02/2004 - 23/12/2004.


Audit of the appropriate use of compression therapy Non-concordance in patients with venous leg ulceration (active or healed) within the Princess Alexandra Hospital Outpatient Wound Management Clinic. Michelle Roch, Dr Harry Gibbs, Vascular medicine, 6/09/2004 - 2/09/2005.

Effectiveness and cost comparison of two different methods of delivering a weight management program to overweight patients with chronic liver disease. Emma Osland, Merrilyn Banks, Dr Elizabeth Powell, NOSS and Gastroenterology, 1/07/2004 - 14/03/2005.

Improving preventative and management strategies in regards to bacteraemia Bloodstream infections in haemodialysis patients Dr Geoffrey Playford, Dr Nikky Isbel, Dr Kate Wiggins, Infection Disease Services and Nephrology, 18/08/2004 - 16/02/2005.


Assessing quality of, and identifying gaps in, information handover in ICU. Dr Bala Venkatesh, ICU, UQ Human Factors, 1/11/2004 - 30/06/2005.

Publications

Journal Articles


Lectures and Presentations

Annabel Hickey

Associate Professor Ian Scott
(Listed Under Internal Medicine Research Report)

Public Service Relevant to Research

Associate Professor Ian Scott
(Listed Under Internal Medicine Research Report)

Dr Gigi Sutton
Member, Innovation Leaders Group, Queensland Health
The Colorectal Unit continues to provide comprehensive adult colorectal service to the Southern Area Health District and referring centres. The Unit receives elective, urgent and emergency referrals. The consultant surgical staff provide a continuous on call service supported by junior surgical staff.

Displays were set up in the foyer by nursing staff for the Crohns/Colitis awareness week and for Bowel cancer week, both were very well received. The first Nursing students from the University of Queensland completed their first year of clinical placement in ward 4E, this provided a consistent learning environment for the students ensuring an optimum level of competence for the first year student. The year brought to fruition four years of work towards the Hospital obtaining “Magnet” status in which all levels of nursing staff within the ward were involved. Jodi Cooper continues to lecture at the Queensland Cancer Fund.

The clinical focus of the Unit is on difficult colorectal problems such as rectal cancer, complicated inflammatory bowel disease and complex perianal problems. An audit is conducted monthly relating to the clinical indicators for the Unit, namely wound infection, thromboembolic disease, anastomotic leaks and mortalities. The rates in all of these areas are very comparable to other major centres. The Colorectal Project has been collecting data on colonic and rectal cancer cases for more than 25 years. In addition, the Unit have one of the largest readily available clinical photo databases at this hospital. These extensive databases have produced much of the research output over the past decade, and continue to do so now with clinical studies underway on perforated colorectal cancers, diverticular disease in young people, GIST, and indeterminate colitis.

The Unit plays an active role in graduate and postgraduate teaching at all levels in the hospital. The major thrust at the graduate level is with the 3rd year medical students who spend five terms, each of six weeks, at the PAH in General Surgery. They are administered and tutored by consultants on the Colorectal Unit every week. The Unit also participates in and coordinates the clinical training of the general surgical registrars at this hospital.

Current Research Activities

The Colorectal Unit’s main focus is with clinical studies of long term outcome in certain key areas of colonic and rectal disease such as cancer and inflammatory bowel disease. All cancer patients being treated and followed by the Unit are assembled on a database by a dedicated research assistant, and this has been used extensively for generating retrospective studies from the Unit. A list of interesting topics requiring investigation that could be tackled by a junior surgical trainee is kept and distributed to incoming basic surgical trainees as necessary. Several of our registrars have taken these through to completion and publication in refereed surgical journals. Current topics include retrospective studies on diverticular disease in young people, GIST, volvulus (accepted for publication), indeterminate colitis, intestinal endometriosis, and the influence of CEA measurement on the treatment of colorectal carcinoma. The results of stapled haemorrhoidectomy at Princess Alexandra Hospital are under investigation, and a prospective study comparing short and long course...
radiotherapy given preoperatively for rectal cancer is also underway in conjunction with the Department of Radiotherapy.

A study has been mounted measuring the effectiveness of the general surgical teaching at Princess Alexandra Hospital of undergraduate, and more recently, graduate, students at the University of Queensland using longitudinal instruments such as pre- and post-testing during 5th year (undergraduate) and 3rd year (graduate) respectively. This is coordinated by consultant staff on the Colorectal Unit. The results are distributed to all teaching hospitals in the Brisbane area in the form of an audit.

Clinical Trials
Prospective trial of ‘short course’ versus ‘long course’ pre-operative radiotherapy for low rectal cancer. In collaboration with the Department of Radiotherapy, Dr David Schache is a member of the Management Committee for this trial.

Other Research
Colonic Stenting for Malignancy: Is This the Way To Go?
Stapled Haemorrhoidectomy: The Princess Alexandra Hospital Results.
Indeterminate Colitis: Treatment and Outcome at Princess Alexandra Hospital.
Intestinal Endometriosis: Presentation and Outcome at Princess Alexandra Hospital.
Value of CEA estimations in the Management of Recurrent Colorectal Cancer.

G.I.S.T. - Local Results at Princess Alexandra Hospital.
Incidence and Outcome of Volvulus at Princess Alexandra Hospital. (Accepted for publication in Canadian Journal of Surgery).
Outcome of Younger Patients with Untreated Diverticulitis at Princess Alexandra Hospital.
Longterm Outcome of Enterovesical Fistula at Princess Alexandra Hospital.
Influence of Perforation of Colorectal Carcinoma on Outcome.

Patents/Trademarks
Australian trademark application for:- Miller’s Visceral Retainer (MVR).
See: http://www.millersurgicaldesigns.com/millersvisceralretainer.htm

Financial Support
Grants
$6,000, Ethicon (Johnson & Johnson Ltd for the Colorectal Project at Princess Alexandra Hospital. Ongoing annual grant. (Dr Jon Cohen)
$6,000, Tyco for the Colorectal Project at PAH. Ongoing annual grant. (Dr Jon Cohen)
Ongoing grant for each edition. (Dr Jon Cohen)

Lectures and Presentations
Dr Brian Miller:
Invited research presentation, Brisbane Colorectal Group, Brisbane: November 2004. Paper entitled: “Colonic Stenting for Malignancy: Is This the Way to Go?”
Grand Rounds, Redcliffe Hospital, by invitation: June 2004. Lecture entitled: “Colorectal Cancer – An Update”.
“Young People with Colorectal cancer – How Do They Fare?”, “Anorectal Melanoma – Where the Sun Never Shines”

Awards
Dr Brian Miller
Roche Award for Excellence in Resident Education; the Most Consistent Nominee Over the Last Decade

Publications
Published Abstracts

Books

Articles Accepted for Publication
Bryan H Burmeister, David Schache et al. “Promising Results of a Co-operative Group II Trial of Preoperative Chemoradiation for Locally Advanced Rectal Cancer (TROG 9801)”. Accepted by ‘Diseases of Colon and Rectum’.

Published Abstracts
Dr Brian Miller:
Invited research presentation, Brisbane Colorectal Group, Brisbane: November 2004. Paper entitled: “Colonic Stenting for Malignancy: Is This the Way to Go?”
Grand Rounds, Redcliffe Hospital, by invitation: June 2004. Lecture entitled: “Colorectal Cancer – An Update”.
“Young People with Colorectal cancer – How Do They Fare?”, “Anorectal Melanoma – Where the Sun Never Shines”

Awards
Dr Brian Miller
Roche Award for Excellence in Resident Education; the Most Consistent Nominee Over the Last Decade

Public Service Relevant to Research
Dr David Theile
Editorial reviewer for “Medical Journal of Australia”, and “Australian and New Zealand Journal of Surgery”

Dr Jon Cohen
Editorial reviewer for “Australian and New Zealand Journal of Surgery”

Dr Brian Miller
Editorial reviewer for “Australian and New Zealand Journal of Surgery”, and “Injury”
The Department of Dermatology provides outpatient, day care and inpatient services relating to general medical and surgical dermatology. Medical staff are visiting medical officers with two full time registrars, two part time registrars, a research assistant and a resident medical officer. Sub-specialist clinics include a pigmented lesion clinic, laser surgical clinic and specialist dermatologic surgical clinics.

**Current Research Activities**

**Clinical Trials**
Two clinical trials have been conducted during 2004 as follows:

02AU04-IMIQ. This open labelled study investigates the efficacy and safety of Imiquimod 5% cream applied topically as an adjunct for the treatment of non-aggressive nodular basal cell carcinoma. The trial involves the screening and biopsy of target lesions, weekly and second weekly review of progress and eventual excision of treated areas. Patients are seen six to ten times over sixteen weeks. Over forty lesions were screened in twenty-three patients. The trial was completed in 2004.

1413-IMIQ. This trial investigates the treatment of superficial BCCs with Imiquimod 5% cream. This is an ongoing project now in the third of five years. Fourteen patients were initially enrolled. Thirty-six month follow up visits were conducted during the year involving review of treated sites and photography.

**Publications**

**Published Abstracts**

**Post Graduate Students**

Dr John Shannon, Dermatological Registrar
Dr Amanda Dore, Dermatological Registrar
Dr Victoria Shepherd, Dermatological Registrar
Division of Diagnostic Radiology

The Princess Alexandra Hospital Radiology Department actively participates in over seventy clinical trials in the normal course of patient care. In addition recently improved radiologist staff levels have led to the development of numerous imaging based research interests. This positive and encouraging approach to research is resulting in tangible research output with numerous imaging oriented projects and publications evident in 2004 and many more likely in 2005.

Current Research Activities

Current Imaging Based Research Activities Include (but are not limited to):

- Phase 1b trial of Thromboview in Pulmonary Embolism. (Associate Professor Stephen Stuckey)
- CTPA (CT pulmonary angiogram) and the Wells Criteria. (Associate Professor Peter Scally)
- Intra-arterial Hepatic Injection of Clofazamine in Lipiodol® (P1 – 166). (Dr David Leggett)
- Cranial Computed Tomographic Angiography in the investigation of patients with Sudden Onset Headache. (Dr David Leggett)
- A comparison of Acusphere ultrasound contrast media and Sestamibi SPECT. (Dr John Andersen)
- MRI of the knee – A retrospective comparison with arthroscopy. (Dr Yu Ming Tang)
- MRI of the shoulder – A retrospective comparison with arthroscopy. (Dr Yu Ming Tang)
- FLAIR cerebral convexity subcortical hyperintensity – normal variation with age. (Dr Yu Ming Tang)
- Use of ultrasound in the diagnosis of diaphragmatic paralysis. (Dr Yu Ming Tang)
- The solitary enhancing cerebral lesion; clues to the pathology on MRI. (Dr Yu Ming Tang and Dr Stanley Ngai)
- Multifocal glioma: How often is it seen with a solitary enhancing lesion? (Dr Yu Ming Tang and Dr Stanley Ngai)

Publications

Journal Articles


Published Abstracts
Crowe B, Sim LH Assessment of the Effect of the Ready Availability of Radiological Results on Clinical Decision Making at Princess Alexandra Hospital, (Proc.) Computer Assisted Surgery & Radiology 2004, Chicago, USA.


Book Chapters

Articles Accepted for Publication
Scally P. Australasian Radiology Book Review: Radiology Core Review by AG Pitman, NM Major and R Tello.


Crowe B, Sim LH. Journal of Telemedicine and Telecare. Implementation of a RIS/PACS and an Electronic Image Transfer System at a Large Public Teaching Hospital – Assessment of Success of Adoption by Clinicians.

Schoenwaelder M, Stuckey SL. Australasian Radiology. Perihepatitis associated with SLE CT findings.


Lectures and Presentations
Dr Lawrence H Sim
PACS Support – QA, Maintenance and Quality Services, invited presentation to Agfa Advanced Digital Imaging Forum, Perth, Australia.

Dr Susanne Jeavons and Dr Mark Benson
QLD Post Graduate Surgical Training Program Lecture series.

Dr Susanne Jeavons
Radiological Investigations in Head and Neck Cancer combined BNT, Oncology and Radiation Oncology Conference, Sunshine Coast.

Three lectures on Radiological Assessment of Skull Base Lesions, Otology and Staging of Head and Neck Malignancy. Campitello Italy.

Dr David Leggett


Dr John Harper

Post Graduate Students
B Kier

Public Service Relevant to Research
Associate Professor Stephen Stuckey
Reviewer, Australasian Radiology

Associate Professor Peter Scally
NHMRC application advisor

Dr Lawrence Sim
Member, Editorial Review Board for Australasian Physical & Engineering Sciences in Medicine.
The Ear Nose and Throat (ENT) Department services the community, not only on the south side of the Brisbane River but is also nationally and internationally recognised. It is a Head and Neck Cancer Unit catering for patients from all over Queensland, interstate and the Pacific Islands. The Department has built its reputation on its ability to obtain good results in patients with advanced head and neck cancer. It has recently expanded its clinical expertise in the development of skull base surgery with Dr Ben Panizza, the development of the Voice Clinic with Dr Scott Coman and its outreach into Island and native communities with Dr Chris Perry.

Since the establishment of the Chair in Otolaryngology, Head and Neck Surgery, there has been an immense interest in work carried out into basic science of head and neck cancer, chronic infection and nerve regeneration. At the same time the clinic sees over forty-two hundred and carries out over eight hundred major surgical procedures each year.

### Current Research Activities

#### Clinical Service and Research

Since the establishment of the multi-disciplinary Head and Neck Clinic in 1978, the main focus of the Department of Otolaryngology, Head and Neck Surgery has been in treating patients who suffer with head and neck cancer. The Department has developed a national and international reputation for its multi-disciplinary approach to the management of patients whose cancers impact on their senses of smell, vision, hearing, taste and on vital functions such as breathing, swallowing and speaking. The Clinic sees over three hundred new patients and many more old patients every year who suffer from head and neck cancer.

#### Research Associated with the Centre for Immunology and Cancer Research, University of Queensland

Associate Professor Nick Saunders, Centre for Immunology and Cancer Research, has been working with the ENT Department and using clinical material from patients with head and neck cancer to study the molecular biology of head and neck cancer, in particular E2F, in the progression of tumours. This study has had several interesting outcomes including the possibility of the development of an adoptive vaccine which may be useful in treating those tumours which are recurrent following surgery or radiotherapy. These nasopharyngeal cancers have been studied by gene arrays and some very interesting protein markers have been discovered which may be helpful in the future determination of prognosis and treatment for these tumours. Professor D Moss, Dr J Davis, Dr Azgary, Dr B McMonagle, Dr D Chin, Dr M Elliot (QIMR).

#### Collaboration with Queensland Institute of Medical Research (QIMR)

The Department continues collaborating with QIMR in providing important material in tumours of the nasopharynx and in the identification of the Epstein Barr virus in these tumours. This study has had several interesting outcomes including the possibility of the development of an adoptive vaccine which may be useful in treating those tumours which are recurrent following surgery or radiotherapy. These nasopharyngeal cancers have been studied by gene arrays and some very interesting protein markers have been discovered which may be helpful in the future determination of prognosis and treatment for these tumours. Professor D Moss, Dr J Davis, Dr Azgary, Dr B McMonagle, Dr D Chin, Dr M Elliot (QIMR).

#### Gene Arrays in Head and Neck Cancer

Material from patients seen at the Princess Alexandra Hospital Head and Neck Clinic has been analysed using gene array techniques. These
techniques allow the discovery of those tumour proto-oncogenes which are up-regulated and the identification of those tumour suppressor genes which are down-regulated. Matched tissue from mucosa, primary tumour and metastasis is being studied and an interesting genetic pattern is emerging. Further research is underway to identify the proteins by immuno-histochemical means. (Dr D Chin, Dr G Boyle, Professor Peter Parsons at QIMR).

Collaboration with Griffith University
Collaboration continues with Professor Allan MacKay-Sim and his department at Griffith University. In a study of chronic sinusitis with Dr Lennart Greiff and Dr Anders Cervin of Lund University, Sweden, patients have had their tissues analysed and have been treated and followed up using the drug Klacid as a therapeutic agent. Klacid acts on the molecular cell biology to reduce the production of inflammatory cytokines. In the trials undertaken both invitro and invivo there has been a 70% response to this treatment for those patients who have been regarded as having chronic sinusitis after all other methods have failed.

Studies on using Olfactory ensheathing cells to penetrate glial scar in the spinal cord have been carried out in the Wistar laboratory rat. Ethical approval has been obtained and one such study has been carried out in a human paraplegic patient at Princess Alexandra Hospital and this study is currently ongoing.

Nerve regeneration studies are being carried out with Dr Brent McMonagle where olfactory ensheathing material was used as a healing promoting factor after resection of the sciatic nerve in the Wistar rat. Seventy percent of those rats that had olfactory ensheathing material used regenerated the sciatic nerve compared to zero percent in the controlled rats.

Clinical Prospective Randomised Control Study on Laser versus Radiotherapy and for T1, T2 Laryngeal Cancer
A multi-national study where patients who are enrolled in the study will be treated with either one or other modality, laser surgery or radiation, and who will have various end points measured. These end points will include local recurrent survival but also include voice, swallowing and quality of life. The costs of these various treatments will also be measured.

Clinical Trials
Laser resection Radiotherapy in Head and Neck cancer.
Chemotherapy/Radiotherapy Protocol (TROG).

Financial Support
Research Grants Received and Associated with Dr David Chin
$80,000, Garnett-Passe & Rodney Williams Memorial Foundation MSc Extension grant. Analysis of Immunological aspects of nasopharyngeal carcinoma", 2004.

$160,000, Garnett-Passe & Rodney Williams Memorial Foundation Project grant.

$140,000, Queensland Cancer Fund. “A phase I trial on adoptive transfer of cytotoxic T-cells specific for EBV latent membrane proteins (LMP1 and 2) delivered to patients with nasopharyngeal carcinoma”, 2004-005.

Other Grants Applied (Extension)
$270,000, Garnett-Passe & Rodney Williams Memorial Foundation Project grant.
Publications

Journal Articles


Published Abstracts


Articles Accepted for Publication


Chin D, Boyle GM, Theile DR, Parsons PG, Coman WB. Laryngoscopy: Novel prognostic markers in HNSCC.


Newspaper/media


Lectures and Presentations

Professor William B Coman


Dr David Chin


Molecular introduction to Head and Neck Cancer (HNSCC) carcinogenesis. 6th Annual Meeting of the Australian and New Zealand Head and Neck Society, Adelaide, RACS. Winner best research paper presented.

(Chin D, Boyle GM, Theile D R, Parsons PG, Coman WB)

Awards

Professor William B Coman

Australia Day Honour 2005 - Member of the Order of Australia (AM)

Public Service Relevant to Research

Professor William B Coman

Member, Editorial Board for the Australian Journal of Otolaryngology

Member, Editorial Board for the Laryngoscope

Member, Editorial Board for The American Journal of Otolaryngology Head and Neck Medicine and Surgery

Journal Referee, Australian Medical Journal

Journal Referee, Australia and New Zealand Journal of Surgery

Centres for Health Research - Annual Review 2004
The Princess Alexandra Hospital Emergency Department is a designated level 6-Trauma centre with 42,000 annual attendances and 14,000 admissions. It is an acute clinical department with responsibility for emergency presentations, observation bay admissions, and attendance at cardiac arrests occurring within the hospital environs.

The Department is responsible for pre-hospital and inter-hospital transfers of sick and injured patients in the Southern Zone of Queensland Health and utilises fixed and rotary wing assets, and road. The Department provides Clinical Coordination and medical advice for the hospitals and health facilities within the Southern Zone.

Current Research Activities

Trauma Registry.
National Institute of Clinical Studies.
Mental Health/Emergency Department Interface Project.
Aeromedical Retrieval and Aviation Medicine.
Calculating composition and volumes of envenomation in snake bites. Multicentre Trial. (Dr A Parkin)
Guidelines for the Investigation and Management of Acute Spinal Injury. (Dr J Potts)

Financial Support
$10,000, QNC. The effectiveness of massage with aromatherapy in relieving stress on Emergency Department staff. (Cathy Davis)

Publications

Journal Articles

Articles Accepted for Publication

Research Assistant
David McNaughton, CNC, Trauma Registry (Part-Time)

Allen Murphy, CNC, Trauma Registry (Part-Time)

Permanent Part Time
Dr Roy Mulcahy, MB ChB, DA(Lond), FRCSI, FACEM
Dr Marianne Cannon, MBBS, FACEM
Dr Andrew Parkin MB, ChB, FACEM
Dr Andrew Staib MBBS, FACEM
Dr Sean Lawrence MBBS, FACEM

Dr Peter Thomas, Deputy Director, Principal Clinical Coordinator Southern Zone, MBBS, FRCS(Edin), FRACGP, FACRRM.
Dr Michael Sinnott, MBBS, FACEM, FRACP
Dr Colin Page, MB,ChB, FACEM
Dr Bevan Lowe, MB,ChB, Dip Obstetrics, Dip Sport Med (CAN), FNZCGP, FACEM

Dr James Collier, MBBS, FACEM
Julie Finucane OAM, NPC, FRCNA

Dr Phillip Kay, Director, MBBS, FRACGP, Dip RACGP, FACEM
Dr Michael Sinnott, MBBS, FACEM, FRACP
Dr Colin Page, MB,ChB, FACEM

Dr Bevan Lowe, MB,ChB, Dip Obstetrics, Dip Sport Med (CAN), FNZCGP, FACEM

Dr James Collier, MBBS, FACEM
Julie Finucane OAM, NPC, FRCNA

Permanent Part Time
Dr Roy Mulcahy, MB ChB, DA(Lond), FRCSI, FACEM
Dr Marianne Cannon, MBBS, FACEM
Dr Andrew Parkin MB, ChB, FACEM
Dr Andrew Staib MBBS, FACEM
Dr Sean Lawrence MBBS, FACEM

Research Assistant
David McNaughton, CNC, Trauma Registry (Part-Time)

Allen Murphy, CNC, Trauma Registry (Part-Time)

Equity of access; myth or millstone? Dr Peter Thomas, paper delivered to Annual Scientific Forum, Australian College of Rural and Remote Medicine (ACRRM), Alice Spring, 10 July 2004.
Red Light Traffic System for Pathology in the ED. Dr Kim Nicholls, ACEM Conference November 2004.

Awards
Dr Michaela Cartner, Annual Award for Teaching of Junior Medical Staff at the Princess Alexandra Hospital
Julie Finucane, Queensland Care Award 2004, NUM ED
Dr Christian Michel, PhD - Free University of Berlin, Charite, Germany. Awarded December 2004.

Lectures and Presentations
Preparation for Retrieval. Dr Peter Thomas, Presentation to International Medical
The major research focus in the Department of Gastroenterology and Hepatology is related to liver disease. During 2004, with Associate Professor Crawford as Director, the Unit continued to focus on understanding the mechanisms involved in how the liver responds to increased iron, hepatitis C and non-alcoholic steatohepatitis in relation to disease pathogenesis and fibrogenesis with the aim of applying appropriate therapeutic options to halt the progress to cirrhosis. Recurrent liver disease post orthotopic liver transplantation was also a major interest.

A successful year with publications in the specialist journal "Hepatology", one with an accompanying editorial and correspondence, highlights the group’s international standing in Hepatology research. The year culminated in the awarding of a National Health and Medical Research Council project grant to Associate Professor Crawford, Dr Bridle and Dr Fletcher to investigate whether immunosuppression affects the post-transplantation hepatic fibrogenic response. Dr Bridle was also awarded a University of Queensland early Career Development award for 2005.

Associate Professor Graeme Macdonald took up the position of Director of the Department of Gastroenterology and Hepatology in August 2004. Previously employed by the University of Queensland at the Central Clinical School, a key motivator for this move was to work more closely with collaborators on the Princess Alexandra Hospital campus. His main interest is in hepatic insulin sensitivity. He also is head of the Liver Group in the Centre for Diabetes and Endocrine Research (Refer to the Centre for Diabetes and Endocrine Research report). The group which consists of Graeme Macdonald, Jon Whitehead, Trish O’Moore-Sullivan has been awarded a Princess Alexandra Hospital Foundation Development Research Grant for 2005 to study the relationship between serum adiponectin and inflammatory state in obese adults.

### Current Research Activities

#### Clinical Trials

- **PO2370 Schering Plough 2/02.** PEG-Intron® Plus REBETOL® For the Treatment of Subjects With Chronic Hepatitis C Who Failed to Respond to Previous Combination Therapy (Any a Interferon Treatment In Combination With Ribavirin).

- **PO2569 Schering Plough 30/02.** PEG-Intron® as Maintenance Therapy vs. an Untreated Control Group in Adult Subjects With Compensated Cirrhosis (METAVIR F4), Secondary to Chronic Hepatitis C, Who Have Failed to Respond to Therapy With Any a Interferon Plus Ribavirin.

- **NV-02B-007 Idenix 12/03.** A Randomized, Double Blind Trial of Ldt (Telbivudine) versus Lamivudine in Adults with Compensated Chronic Hepatitis B.

- **NV-02B-001 Idenix 2003/213.** Randomized, Double-Blind Trial of Telbivudine (LdT) versus Lamivudine in Adults with Decompensated Cirrhosis.
Chronic Hepatitis B and Evidence of Cirrhosis.

NV 15908 Roche. An extension protocol to evaluate the long-term effects of treatment with peginterferon alfa-2a (PEG-IFN) - or interferon (IFN) - based therapies for patients with Chronic Hepatitis C.

GS-98-437 Gilead 8/99. A Double-Blind, Randomised, Placebo-Controlled Study of Adefovir Dipivoxil for the Treatment of Patients with HbeAg (+) Chronic Hepatitis B Virus Infection.

GS-00-481 Gilead. A phase 3b, long-term, observational study of the durability of seroconversion in patients with chronic hepatitis virus infection who have seroconverted while participating in a previous Gilead-Sponsored study of Adefovir Dipivoxil.

Other Research

Iron metabolism in the cirrhotic liver: studies on iron absorption and hepatic iron kinetics. This project investigates the mechanisms and pathophysiological significance of increased iron deposition in end-stage liver disease. It formed the basis of Dr Katherine Stuart’s PhD thesis which has been submitted and reviewed requiring minor changes. The group have shown that the presence of cirrhosis in human patients is an independent factor associated with the expression of divalent metal iron transporter 1. This may have an important role in the pathogenesis of cirrhosis-associated iron overload together with other factors such as redistribution of tissue storage iron, low-grade hemolysis and an accompanying increase in erythropoiesis resulting in increased intestinal iron absorption mediated by changes in duodenal iron transporters.

Interrelationships between alcohol and iron metabolism in liver disease. In chronic liver disease, it has become increasingly evident that co-toxic disease is common. The extent of cofactor involvement is critical in the determination of disease progression, with evidence for alcohol increasing the risk of the development of cirrhosis in iron overload disease. This project investigates mechanisms underlying the co-toxicity of alcohol and iron in the pathogenesis of liver disease. More specifically we are investigating mechanisms underlying alcohol-induced disturbances in iron homeostasis by measuring the gene expression of hepcidin, an iron sensor peptide that is responsible for the absorption and trafficking of iron in the body. The group have also investigated the transcription factor CAAT enhancer binding protein alpha using in vivo and in vitro models of alcoholism.

Effect of liver pathophysiology on hepatic pharmacokinetics. In collaboration with Professor Mike Roberts and his team the group are investigating the effect of liver disease on hepatic drug disposition. (Refer to Therapeutics Research Unit).

Factors that regulate secretion of active isoforms of Adiponectin. In collaboration with the Centre for Diabetes and Endocrine Research in the University of Queensland, Dr Macdonald’s investigations include studies on Adiponectin, a protein produced by adipose tissue that has a key role influencing how liver cells respond to insulin. Investigations into the factors that regulate secretion of active isoforms of Adiponectin and the associations of these isoforms and human disease continued throughout 2004. Dr Macdonald initiated studies to examine the natural history of obesity-related liver disease in Type 2 Diabetes and post-liver transplant and is examining issues related to quality life and symptoms in people with Hepatitis C infection.

Investigations of the mechanisms by which steatosis contributes to fibrosis progression in chronic liver disease. (Refer to Liver Research Group).
Published Abstracts


Lectures and Presentations

Associate Professor Paul Kerlin was invited to attend a National Institute of Health workshop in Washington, USA (November 2004) to speak about liver complications of herbal medicines. The meeting was arranged to discuss potential benefits and risks of products such as black cohosh (cimicifuga racemosa) which has been promoted as a “natural” remedy for symptoms of menopause.

Post Graduate Students

Katherine Stuart, PhD, Completed in 2004

Mr Matt Stephenson, PhD, Commenced in 2004

Mr Pengcheng Li, PhD

Ms Carolyn Lang, PhD

Public Service Relevant to Research

Gastroenterological Society of Australia - Chairman Australian Liver Association (Associate Professor Crawford)

Editorial Board: Journal of Hepatology/Journal of the European Association for Study of the Liver (Associate Professor Crawford)

Assessors, NHMRC Grants

Associate Professor Darrell Crawford

Associate Professor Graeme Macdonald

Dr Linda Fletcher

Manuscripts Reviewed for the following Journals

Journal of Gastroenterology and Hepatology

Liver Transplantation

Gastroenterology

Digestive Diseases and Sciences

Hepatology

Journal of Hepatology

Financial Support

NHMRC Grants

$85,000, NHMRC. Iron metabolism and the cirrhotic liver: studies on iron absorption and hepatic iron kinetics. (D Crawford)

$145,000, NHMRC. Effect of liver pathophysiology on hepatic pharmacokinetics. (M Roberts)

$70,000, NHMRC. Human hepatic insulin resistance. (G Macdonald)

Other Grants

$35,000, Australian Brewers’ Foundation. Hepatic expression of the antimicrobial peptide hepcidin and its role as an iron regulator in alcoholic liver disease. (L Fletcher)

Publications

Journal Articles


Crawford DHG, Fletcher LM, Hubsher SG, Stuart KA, Gane E, Angus PW, Jeffrey GP, McCaughan GW, Kerlin P, Powell LW, Bias EE. Patient and graft survival after liver transplantation for hereditary haemochromatosis. (Associate Professor Crawford)


Other Grants

$70,000, Australian Brewers’ Foundation. Hepatic expression of the antimicrobial peptide hepcidin and its role as an iron regulator in alcoholic liver disease. (L Fletcher)
The Haematology Department has an active research programme in both laboratory and clinical haematology. The major focus is on haematological malignancies, particularly in lymphomas and leukemias. The research spans from basic science through translational and clinical research. Current projects include the use of microarray technology in predicting clinical outcome in chronic lymphocytic leukemia, pathogenesis of chronic lymphocytic leukemia and detecting minimal residual leukemia in Acute Myeloid Leukemia. The staff are recognised leaders in their field nationally and internationally. The Department is a leading contributor to major national and international trials being conducted in the treatment of leukaemias, myelomas and lymphomas. There is an active clinical trials program with twenty-three Phase I, II or III clinical trials open (see below). These include national and international trials where the principal investigator is based at the Princess Alexandra Hospital.

The Leukaemia and Lymphoma National Tissue Bank is housed and managed at Princess Alexandra Hospital: a joint initiative of the Australasian Leukaemia and Lymphoma Group (ALLG) and the Leukaemia Foundation. This is a national project, and run by a senior member of the department on behalf of the ALLG. The tissue bank archives samples of blood and bone marrow from patients with hematologic malignancies treated on ALLG clinical studies. This facility is a unique resource for the laboratory research community enhancing the ability in Australia to contribute to the understanding of leukaemia and its biology.

The Princess Alexandra Hospital is also recognised for its research in leukemias and is a Reference Centre for detecting minimal residual disease in acute myeloid leukemia.

**Current Research Activities**

**Clinical Trials**

A Haemoglobin Stabilization And Transfusion Reduction Efficacy And Safety Clinical Investigation, Randomized, Multi-Center, Double-Blind, Placebo-Controlled, Using Eculizumab In Paroxysmal Nocturnal Hemoglobinuria Patients (TRIUMPH).

A randomised trial of Idarubicin dose escalation in consolidation therapy following intensive induction chemotherapy incorporating high dose Cytarabine in patients with untreated adult acute myeloid leukaemia. (AML12).

High Dose Cytarabine and Fludarabine without anthracycline for patients with core binding factor acute myeloid leukaemia. (AML13).

A prospective, non-randomised study of chemotherapy and radiotherapy for Osteolympoma (OL).

Treatment of patients with post transplant lymphoproliferative disorders (PTLD) with a sequential treatment consisting of Anti CD20 antibody Rituximab and CHOP plus G-CSF chemotherapy. (PLTD1).

A Phase II Study of Imatinib Mesylate in Patients with Neoplastic Diseases Involving Activated Tyrosine Kinases (INDY).
Pilot study to determine the feasibility and safety of an accelerated regimen for delivery of Rituxumab on an outpatient basis. (ACCELERATED MABTHERA).

A phase II study of induction therapy using idarubicin and infusional high dose cytarabine for adult patients with de novo untreated acute lymphoblastic leukaemia (ALL3).

A randomised multicentre trial of involved field radiotherapy versus involved field radiotherapy plus chemotherapy for stage I-II low grade follicular lymphoma. (TROG).


A randomised trial of chlorambucil versus fludarabine as initial therapy of Waldenstrom's macroglobulinaemia and splenic lymphoma with villous lymphocytes.

A multicentre, randomised, parallel-group, double-blind, placebo-controlled study of combination thalidomide plus dexamethasone therapy versus dexamethasone therapy alone as induction therapy for previously untreated subjects with Multiple Myeloma (MM3).

Open-label, non-comparative study of pegylated alpha-interferon-2b (PEG-Intron) in the induction and/or maintenance of hematologic remission in patients with essential thrombocythemia (ET)

A Multicentre randomised phase III study of low-dose thalidomide, prednisolone and zoledronic acid versus prednisolone and zoledronic acid for post-ASCT maintenance therapy in patients with multiple myeloma (MM6).

International Phase III Trial of Primary Therapy for B-Cell Chronic Lymphocytic Leukaemia (CLL2).

A phase II study of idarubicin-based combined modality therapy in primary central nervous system lymphoma: ALLG LY04; TROG 01.02.

Randomised Study of ICE plus Rituximab (R-ICE) versus DHAP plus Rituximab (R-DHAP) in previously treated patients with CD 20 positive Diffuse Large B-Cell Lymphoma, eligible for high-dose chemotherapy and transplantation followed by randomised maintenance treatment with Rituximab (CORAL)

Randomised Study of Rituximab (MabThera) In Patients With Relapsed Or Resistant Follicular Lymphoma Prior to High Dose Therapy As In Vivo Purging And To Maintain Remission Following High Dose Therapy. Protocol: M39049 Lymphoma Working Party: EBMTLYM1.

A multicenter, randomised, open-label, parallel-group, phase 3 trial of subcutaneous Azacitidine plus best supportive care versus conventional care regimens plus best supportive care for the treatment of Myelodysplastic Syndromes (Protocol #: AZA PH GL 2003 CL 001 (Version 2.0).)


Laboratory Trials
Generation of Latent Membrane specific Cytotoxic T Lymphocytes from patients with EBV-positive Hodgkin Lymphoma.


Laboratory Trials
Generation of Latent Membrane specific Cytotoxic T Lymphocytes from patients with EBV-positive Hodgkin Lymphoma.


Efficacy of in vivo G-CSF primed viral-peptide specific T cells.


Gene expression profiling and other associated laboratory studies in B-Chronic Lymphocytic leukaemia (B-CLL).

Other Research
Molecular and phenotypic analysis of leukaemia samples.

Preclinical studies to develop a whole tumour RNA-loaded dendritic cell vaccine for multiple myeloma patients.

Publications
Journal Articles


Financial Support
The Oncology Haematology Trials Cost Centre received $280,000 during 2004.

Grants
$400,000 Queensland Cancer Fund grant to the Cancer Collaborative Group ($2million over 5 years)

Other Support
$40,000, Queensland Health (Princess Alexandra Hospital). Predicting Clinical Outcomes in CLL using microarray. (Dr Gill and Dr N McMillan)

$49,000 and $30,000, Amgen and Leukemia Foundation of Queensland. A Phase II Study of Risk-Adapted IV Melphalan in Patients with AL Amyloidosis: MM8. (Dr Peter Mollee)

$50,000, Leukemia Foundation. High dose cytarabine and fludarabine without anthracycline for patients with core binding factor acute myeloid leukaemia" AML M13. (Dr Paula Marlfon)

$70,000, Leukemia Foundation. ALLG Tissue Bank. (Dr Paula Marlfon)

$8,360, Princess Alexandra Hospital. Implementation of best practice to reduce central line- associated blood stream infections and premature central line removal. (Dr Peter Mollee & Rosita Van Kuijllen)

Research - Key to Health


Published Abstracts


Hall, SL, Middleton, H., Mollae, P., Mills, A., Martin, R., Gill, D. A Case of Quinine Induced Thrombocytopenia Purpura Induced by the Ingestion of Bitters. Annual Scientific Meeting of the Haematology Society of Australia and New Zealand.

Hall, SL, Tate, J., Gill, D., Mollae, P. Significance of Abnormal Protein Bands (APB) in Patients with Multiple Myeloma Following Autologous Stem Cell Transplantation (ASCT). Annual Scientific Meeting of the Haematology Society of Australia and New Zealand.


Dr Gill

The MINT trial (CHOP-like regimens with or without Rituximab for young low-risk patients with Diffuse Large B-Cell Non-Hodgkin’s lymphoma [DLBCL]): early stopping after first interim analysis. Melbourne May 2004.


Dr Paula Martin


How research has made a difference to leukaemia sufferers. Leukaemia Foundation Ball August 2004.


Dr Peter Mollee

Dr Maher Gandhi
Dynamic Profiling of the Cellular Immune
response to EBV in Hodgkins Lymphoma.
Sydney, ALLG, Sydney, November 2004.
EBV-specific CTL in Hodgkins Lymphoma.
Sydney, Australasian Leukaemia Lymphoma
Group, Sydney, November 2004.
Mechanisms of immuno-evasion in
Hodgkins. Brisbane Immunology Group
Seminar, October 2005.
Immunotherapy for Hodgkins Lymphoma.
Cancer Collaborative, CICR, Brisbane,
August 2004.
Hodgkin's Lymphoma: Time for a Re-think?
QIMR Seminar, July 2004.
Herpes Viruses and T cells. Brisbane Royal
Childrens Hospital, Grand Round, March
2004.
T cell immunotherapy for Hodgkin's
Lymphoma. Peter MacCallum Cancer
T cell immunotherapy for Hodgkin's
Lymphoma. Royal Melbourne Hospital,
March 2004.
A tale of two hemispheres. Haematology
Society of Australasia, Queensland State
Saal Ruzell, Mather Michael, Mariton Paula.
WT1 transcripts as a measure of residual
disease in AML. HSANZ Annual Scientific
Meeting, Melbourne October 2004
(presentation).
Mark Bentley, Paula Marlon, Noemi
Horvath, Ian Lewis, Andrew Spencer, Richard
Herrman, Chris Arthur, Simon Durrant,
Marilyn Van Kerkhoven, Jamie MacMillan,
Robert Mrongovius, Max Wolf. Single dose
per cycle Pegfilgrastim supports full dose
intensity CHOP-14 in patients over 60 years
with NHL and mobilises peripheral blood
progenitor cells (PBPC). HSANZ Annual
Scientific Meeting Melbourne October 2004
(presentation).
The Princess Alexandra Hospital Hypertension Unit conducts internationally recognised clinical research into the pathogenesis and management of hypertension, and especially of endocrine forms. The Unit is considered a world authority on primary aldosteronism, a specifically treatable and potentially curable form of hypertension, and has made major contributions to the understanding of its pathogenesis (including genetic basis), prevalence and accurate diagnostic workup. This has led to frequent invitations to speak at national and international meetings, contribute reviews to major journals and collaborate with national and international research groups in areas relating to aldosterone, primary aldosteronism and other salt-dependent forms of hypertension.

Major research highlights and achievements included:

- The appointment, as Research Assistants, of two scientists (Ms Yvette Jeske and Dr Bronwyn Bulmer), highly experienced in molecular biology techniques.
- The establishment of a new strong research collaboration into the genetics of primary aldosteronism with Dr David Duffy, from Professor Nick Martin's group at the Queensland Institute of Medical Research.
- Success in obtaining Project Grant funding from the National Health and Medical Research Council to conduct further research into the genetics of primary aldosteronism.
- Significant progress in the Unit's quest to elucidate the genetic basis of primary aldosteronism: Previous work performed by the Greenslopes Hospital Hypertension Unit (where the Director of Princess Alexandra Hospital Hypertension Unit is also Director) involving one large family with primary aldosteronism identified a region within the family members' DNA which probably contains the abnormal gene. Work performed in 2004 at the Unit as part of Dr Albertina So's PhD thesis found evidence to suggest that the same region of DNA may also be involved in two other affected families, and by studying the original large family in more detail, has been able to significantly shorten the region of DNA that must be searched to find the abnormal gene, allowing around one-half of the genes contained in this area to be ruled out as causing primary aldosteronism. Ongoing work aims to refine this region further using more closely spaced DNA markers and single nucleotide polymorphism analysis in order to gradually hone in on the responsible gene. This work has the potential to lead to new tests that will make it much easier to detect people with this condition, so that they can then be given specific and often curative treatment. It will also increase understanding as to how primary aldosteronism develops in the first place.
- New findings on the adverse cardiovascular effects of aldosterone excess: Recent evidence, mainly from animal studies, suggests that too much aldosterone can harm the heart and arteries directly, through means that don't necessarily involve high blood pressure. The Unit, in collaboration with Professor Tom Marwick's Cardiovascular Imaging Research Group as part of the Clinical
Centre of Research Excellence in Cardiovascular Disease and Metabolic Disorders at Princess Alexandra Hospital, is studying whether this is the case in humans. In 2003, the Unit found that people with hypertension due to primary aldosteronism had abnormal heart function, the severity of which related directly to the serum level of aldosterone hormone (and not just to severity of hypertension). Work in 2004 demonstrated evidence of reduced heart function in patients with an inherited form of primary aldosteronism who hadn't yet developed hypertension. These findings are of major importance as they raise an argument for giving “anti-aldosterone” treatment to people whose adrenals produce too much aldosterone, whether or not they have high blood pressure. Ongoing work is focussing on the effects of such treatment in people with primary aldosteronism.

**Current Research Activities**

Associate Professor Stowasser has 15 years of clinical and research experience in the pathogenesis, diagnostic workup and management of various forms of hypertension and especially of endocrine varieties, including primary aldosteronism renovascular hypertension, pheochromocytoma, renin-secreting tumors, and the syndrome of hypertension and hyperkalemia with normal glomerular filtration rate, also known as pseudo-hypoaldosteronism type 2 (PHA-2) or Gordon's syndrome. The Princess Alexandra Hospital Hypertension Unit and Greenslopes Hospital Hypertension Unit have maintained strong collaborative clinical and research ties, and remain the only two clinical Units in Queensland dedicated to the management of, and research into hypertension.

Main recent topics of publication and presentation have included:

- Epidemiological, clinical, biochemical, morphological and genetic aspects of primary aldosteronism. Using meticulous new diagnostic approaches, the Greenslopes Hospital Hypertension Unit was first to demonstrate worldwide that primary aldosteronism is approximately 10 times more common that previously thought. The combined units have the largest number of patients (currently over 1000) with primary aldosteronism worldwide who have been thoroughly studied and documented. This provides a unique resource for further research into the causes, diagnosis and treatment of mineralocorticoid hypertension. The Princess Alexandra Hospital Hypertension Unit is the only facility in Eastern Australia offering genetic testing for a familial variety (FH-I) which can cause severe hypertension and early death from stroke, but which is easily controlled by giving small doses of specific "glucocorticoid" medication.

- Genetic forms (i) FH-I: clinical, biochemical and genetic approaches to detection, various aspects of aldosterone biosynthesis, determinants of hypertension severity, treatment, and seeking evidence of non-blood pressure related adverse cardiovascular effects of aldosterone excess in normotensive subjects with FH-I.

- Genetic forms (ii) the Princess Alexandra Hospital Hypertension Unit is involved in collaborative research with the Queensland Institute of Medical Research, the National Institutes of Health, Bethesda and Cornell University, New York, USA in order to determine genetic mutations responsible for a new familial variety of primary aldosteronism (FH-II) described by the Greenslopes Hospital Hypertension Unit in 1991.

- Non-BP dependent adverse cardiovascular effects of aldosterone excess, which are being sought in patients with primary aldosteronism and other forms of hypertension by measuring procollagen propeptides as a marker of cardiovascular fibrosis, pulse wave velocity as an indicator of arterial stiffness, and using state-of-the-art echocardiographic techniques (performed in Professor Thomas Marwick's laboratory, University of Queensland Department of Medicine, Princess Alexandra Hospital) to study function, fibrosis and remodelling of the heart.

- The therapeutic potential of aldosterone antagonists in a variety of clinical situations (including hypertension and diastolic heart failure).

- The genetic basis of fibromuscular dysplasia of the renal arteries, which causes a renovascular form of hypertension.

- The detailed pathophysiology and genetic basis of Gordon's syndrome.

- The diagnosis of renin-secreting tumors.

- Pathogenesis and diagnosis of pheochromocytoma, a tumor that secretes catecholamines (including adrenaline and noradrenaline), leading to extremely dangerous hypertension and cardiac arrhythmias.
Financial Support

Grants

$400,000, National Health & Medical Research Council, CCORE. Establishment of a Clinical Centre of Research Excellence in Cardiovascular Disease and Metabolic Disorders, Various PAH-based UQ Research Groups including PAHHU. (Marwick T, Prins J, Shaw J, Stowasser M, Johnson D, Beller E, Coombes J)

Other Support

Irene Hunt Hypertension Research Fund - established in 2000 following a bequest of approximately $1.3 million by a grateful patient of the GHHU to be used to fund Professor Gordon’s hypertension research and administered at his request by Associate Professor Michael Stowasser. The Fund generates approximately $50,000 per year and is used to support a medical graduate pursuing a higher degree in hypertension research.

Publications

Journal Articles


Published Abstracts


Book Chapters


Articles Accepted for Publication


Sharman JE, Fang ZY, Haluska B, Stowasser M, Marwick TH. Left ventricular mass in patients with type 2 diabetes mellitus is independently associated with central but not peripheral pulse pressure. Diabetes Care.

Lectures and Presentations

Invited - International


Invited - National

Stowasser M. Screening and diagnostic workup of primary aldosteronism. Melbourne Pathology Endocrine Seminar, Melbourne, September 2004.


Competitive by Abstract Submission - Oral Presentations
Stowasser M, Gordon RD, Elphinstone MS, So A. Familial hyperaldosteronism type II (FH-II) is more common than type I (FH-I) and demonstrates linkage to chromosome 7p22. 19th Scientific Meeting of the International Society of Hypertension, Sao Paulo, February 2004.

Competitive by Abstract Submission - Poster Presentations


Public Service Relevant to Research
Associate Professor Michael Stowasser
Secretary, Executive Committee of the High Blood Pressure Research Council of Australia
Member, Blood Pressure Advisory Committee for the National Heart Foundation of Australia (1998 - )
Member, Editorial Board for Clinical and Experimental Physiology and Pharmacology (1998 - )
Subject Editor, Nephrology (2003 - 2004)
Member, Veterans' Research Foundation Research Committee, Greenslopes Hospital (2001 - )
President, Queensland Hypertension Association (1995 - )
Reviewer, Australian Hypertension Fellowship Award Applications
Written Grant Application Reviewer, National Health & Medical Research Council, National Heart Foundation of Australia and The Mackenzie Hypertension Trust (UK)
Reviewer of Scientific Papers submitted for publication in the following journals: Journal of Clinical Endocrinology and Metabolism, American Journal of Hypertension, Human Genetics, Journal of Hypertension, Journal of Human Hypertension, Clinical Endocrinology
The Department of Clinical Immunology and Allergy provides an inpatient and ambulatory service to Queensland and Northern New South Wales. Through the Day Services Unit therapy with intravenous immunoglobulin is provided and skin testing with or without challenges is performed to investigate hypersensitivity to pharmaceuticals, foods and other allergens.

The research interests of the Unit include clinical and investigative aspects of autoimmune disease, vasculitis, allergy, immune deficiency, interstitial lung disease and the alloimmune response to human allografts including aortic valves.

**Current Research Activities**
Post-transplant monitoring of anti-HLA antibodies as a predictor of acute rejection in patients after renal or hepatic transplantation.

**Publications**

**Journal Articles**


**Lectures and Presentations**

- Dr Patrick Hogan

- Dr Richard Wong


- Anti-cardiolipin and anti-β2GPI antibodies. 10th ICPMR Immunopathology Course. Westmead Hospital, Sydney, May 2004.

The Infection Management Services is comprised of a series of divisions including Clinical Infectious Diseases, Infection Control, Sexual Health and the Alternate Site Infusion Service. Each division of the Department provides services to the entirety of the Southern Zone of Queensland Health, except the Gold Coast.

The Department provides undergraduate and post-graduate teaching in all areas of Infectious Diseases, Infection Control as well as some Microbiology to Medical, Pharmacy and Science students of the University of Queensland.

Post graduate education and activities are undertaken with a range of professional groups including Doctors, Nurses, Pharmacists and Laboratory Scientists.

The research program of the Department has three major foci:

- Epidemiology of healthcare associated infection including development of new epidemiological and statistical techniques for the early detection of adverse outcomes of an infective nature. There is particular interest in both community and hospital-acquired Methicillin-resistant Staphylococcus aureus and healthcare associated yeast and fungal infections. Antimicrobial resistance patterns, particularly in major hospital pathogens.

- Pharmacokinetics and pharmacodynamics of newer antimicrobial agents.

Current Research Activities


Clinical Trials


A multicentre, double blind, comparative, randomised study to evaluate the efficacy and safety of Micafungin (FK463) versus Liposomal Amphotericin B (Ambisome) in the treatment of invasive candidiasis and candidaemia.

The Australian Community-Acquired Pneumonia Study (ACAPS).
Published Abstracts


Book Chapters


Articles Accepted for Publication


Lectures and Presentations

Dr Munckhof


Dr Playford

Dr Whitby

Post Graduate Students
Gail Neilson, PhD, UQ
Emma McBryde, PhD
Karen Taylor, M App Sci QUT

Public Service Relevant to Research
Dr Michael Whitby
International Journal of Infectious Diseases – Editor for South East Asia and Australasia

Dr Wendy Munckhof
Australian Society for Antimicrobials – Secretary
This year has seen a considerable expansion in the Unit’s research workload, an increase in collaborations, the award of two National Health and Medical Research Council grants, several other grants from foundations and industry, an increase in publications and international and national presentations. There has also been an increase in research staff and PhD enrolment.

The emphasis of research is on both clinical and basic science related work.

**Current Research Activities**

**Clinical Trials**

DECRA (Decompressive craniectomy) study: Multi-centre prospective randomised trial of early decompressive craniectomy in patients with severe traumatic brain injury.


**Other Research**

Modelling outcome, tracking outcome with risk adjusted statistical methods, operations research, machine learning applications.

Changes in Body fluid dynamics and drug behaviour in critically ill patients - currently looking at neuromuscular blocking drugs (Cisatracurium) and antibiotic dosing in sepsis.

HMG Co A Reductase inhibitors (Statins) in critical illness.

Alterations of lipid profile in severe sepsis.

Antibiotic therapy and biomarkers of sepsis.

Quality of information handover during ward rounds in ICU.

The evaluation of indocyanine green elimination as indicator of liver function.

Compression profiles of graduated compression stockings following repetitive patient use and hospital laundering.

Dealing with Death: An audit of family bereavement programs in Australian intensive care units.

Families satisfaction with care in intensive care.
Financial Support

ANZCA Grants
ANZCA Grant: Optimal duration of antibiotic therapy in critical illness: A prospective study. (B. Venkatesh, P. Kruger, D. Looke)
ANZCA Grant: Assessing quality of and identifying gaps in the information handover during the ICU ward rounds. (B. Venkatesh, A. Miller, T. Limpus, A. Karnik, R. Barnett)
ANZCA Grant: Optimal antibiotic dosing in burns: fluid dynamics and drug tissue pharmacokinetics. (B. Venkatesh, S. Cross, M. Roberts)

NHMRC Project Grants
Optimal antibiotic dosing in burns: fluid dynamics and drug tissue pharmacokinetics. (S. Cross, B. Venkatesh, M. Roberts)
Study of Risk Assessment to reduce complications in patients Following noncardiac surgery (STRATIFY). (T. Marwick, B. Venkatesh)

Princess Alexandra Hospital Foundation Grant
Development of an Experimental Intensive Care Facility B
Incremental Learning Machines to Model Risk of Death of ICU Patients.

Publications

Journal Articles

Book Chapters

Articles Accepted for Publication
Hauser B, Matejovic M, Venkatesh B, Rademacher P. iNOS inhibition in sepsis. Accepted for publication in Anaesthesia & Analgesia.
Venkatesh B, Morgan TJeff et al. Subcutaneous gas tensions closely track ileal mucosal gas tensions in a model of endotoxemia without anaerobism. Accepted for publication in Intensive Care Medicine.
White HW, Venkatesh B: Adjunctive tests for diagnosis of brain death. Accepted for publication in Intensive Care Update, Jaypee Brothers.
**Lectures and Presentations**

Blackwell N and Foote C. Claris Fellowship in Critical Care, India December 04.


Cook, DA. Status of severity of illness scoring and risk of death assessment in ICU. Australian and New Zealand Intensive Care Society Scientific Meeting, Queensland Society Scientific Meeting, Queensland November 2004.


Venkatesh, B. Claris oration: Intensive Care Medicine: Ibsen to the Millennium.


Post Graduate Students
Dr David Sturgess, PhD, Commenced in 2004
Michael Abbey, Master of Philosophy, Commenced in 2004

Awards
Associate Professor Bala Venkatesh Claris International Achievement Award for promotion of Critical Care in Asia
Dr Ros Purcell Best registrar presentation at the 44th Annual Princess Alexandra Hospital Week Scientific Meeting, Brisbane, July 2004
Dr Carole Foot Don Harrison Award for the best performance in the Fellowship Examination in Intensive Care
Alison Juers Awarded best nursing paper presentation at the 44th Annual Princess Alexandra Hospital Week Scientific Meeting, Brisbane, July 2004

Public Service Relevant to Research
Associate Professor Chris Joyce Convenors of the Australian Intensive Care Medicine Clinical Refresher Course Sep 3-5, 2004
Examiner for Specialist Colleges. Joint Faculty of Intensive Care Medicine Exam: April - May 2004
Examiner for Specialist Colleges. Set up the Primary Examination in Critical Care Medicine in India administered by the Indian College of Critical Care Medicine, Dec 6-7 2004

Associate Professor Bala Venkatesh Convenor, Critical Care Basic Science Symposium held in Aug 2004 in Brisbane, the first of its kind in the Southern Hemisphere. The website for the symposium is www.icuscience.com.au
Convenor, Australian Intensive Care Medicine Clinical Refresher Course Sep 3-5, 2004
Co-Convenor, 3rd Indo - Australian Intensive Care Medicine Clinical Refresher Course Dec 3-5, 2004
Examiner for Specialist Colleges. Joint Faculty of Intensive Care Medicine Exam: April - May 2004
Examiner for Specialist Colleges. Set up the Primary Examination in Critical Care Medicine in India administered by the Indian College of Critical Care Medicine, Dec 6-7 2004

Examiner for Specialist Colleges. Set up the Primary Examination in Critical Care Medicine in India administered by the Indian College of Critical Care Medicine, Dec 6-7 2004

Editorial Board, Critical Care and Resuscitation
Editorial Board, Australasian Anaesthesia
Editorial Board, Indian Journal of Critical Care Medicine
Peer Review, Intensive Care Medicine, Anesthesia and Analgesia, Critical Care & Resuscitation, Anaesthesia and Intensive Care

Dr Peter Kruger Convenors of the Critical Care Basic Science Symposium held in Aug 2004 in Brisbane, the first of its kind in the Southern Hemisphere. The website for the symposium is www.icuscience.com.au
Peer Review, Anaesthesia and Intensive Care

Dr Amod Karnik Examiner for Specialist Colleges. Set up the Primary Examination in Critical Care Medicine in India administered by the Indian College of Critical Care Medicine, Dec 6-7 2004

Dr David Cook Peer Review, Anaesthesia and Intensive Care, Chest, Critical Care Medicine
Alison Juers Peer Review, Australian Critical Care
The Department has become a nationally recognised leader in research on methods for improving quality of clinical practice, promoting evidence-based medicine, and evaluating healthcare services. It has played a central role in building a collaboration of twenty-five Queensland public hospitals which has implemented and evaluated successful systems for optimising the care of patients hospitalised with acute coronary syndromes or congestive heart failure. Research interests in geriatric medicine, diabetic care and intellectually disabled adult medicine have also been pursued.

### Current Research Activities

#### Clinical Trials

The use of cholesterol to cholesterol Ratio to GuidE Therapy: LDL Lowering. The TARGET LDL Study Group. Steering Committee: Michel R. Hoenig, Karam Kostner, Ian A. Scott, John Atherton, William Parsonage. A multicentre trial aimed at determining relative efficacy of combinations of statins, resins and ezetimibe in patients with underlying coronary disease and suboptimal cholesterol levels who are categorised, according to serum cholesterol levels, as to whether they are synthesizers or absorbers of cholesterol or show a mixed pattern.

#### Other Research

- Cochrane systematic review of routine vs selective (ischaemia-guided) invasive interventions in patients with non-ST elevation acute coronary syndromes. (MR. Hoenig, C Aroney, I Scott)
- Systematic review of studies of quality improvement interventions in the care of patients hospitalised with acute coronary syndromes. (V Chen, I Scott)
- Ongoing research into methods for optimising care of patients hospitalised with acute coronary syndromes and congestive heart failure. This research is being conducted under the auspices of a 25-site public hospital collaboration, the Cardiac Collaborative, one of 6 disease-focussed collaboratives under the banner of the Queensland Health Collaboratives for Healthcare Improvement.
- Ongoing research into methods for optimising delivery of outpatient cardiac rehabilitation services to patients recently discharged from hospital following acute coronary syndromes or coronary revascularisation surgery. This research is being conducted under the auspices of a collaboration of 15 cardiac rehabilitation programmes throughout Queensland under the auspices of the Cardiac Rehabilitation Collaborative, one of 6 disease-focussed collaboratives under the banner of the Queensland Health Collaboratives for Healthcare Improvement.
- Ongoing research into methods for improving systematic assessment of, and appropriate healthcare responses to, the special needs of hospitalised elderly patients with multi-system disease and/or dementia. Research into clinical epidemiologic methods for improving the clinical interpretation of published literature relating to studies of therapy, diagnosis and prognosis.

### Staff

**Associate Professor Ian Scott**  
FRACP, MHA, Med, Director of Internal Medicine; Director of Clinical Services Evaluation Unit

**Dr Graham Hall** FRACP

**Dr Robyn Wallace**  
FRACP, BSc (Hons), Dip Ed, MSc, PhD

**Dr Lisa Gemmell** FRACP

**Dr Su Mein Yeoh**  
FRACP, M Phil

**Research Assistants**

- Annabel Hickey (MMSc [Clin Epi], BAptSci OT)
- Kim Johns
- Melodie Downey
- Karen Watson
- Mark Jones (BSc)
- David McNaughton
Research into the use of research evidence and systematically gathered clinical data in guiding efforts undertaken at an organisational level towards improving quality of care and patient safety.

Research into the nutritional, gastrointestinal and growth problems in adults with intellectual disability.

Financial Support
$80,000, National Institute of Clinical Studies. Improving use of evidence by clinician leaders in healthcare settings. (Dr Stella Stephens)

Publications

Journal Articles


Published Abstracts


Book Chapters
Wallace RA, Dalton AD. Health Problems of Growing Older with Down Syndrome, submitted for publication through IASSID.

Articles Accepted for Publication


Lectures and Presentations
Associate Professor Ian Scott (*Invited)
*Debate: Don't worry about lifestyle changes just give all women the polypill? Women's Health Conference 2004, Gold Coast, March 29.

*Optimising quality of cardiac care in Queensland hospitals. Presentation to Quality and Innovation in Cardiac Care 2004 conference, Brisbane, May 7.

*Utilisation of outpatient cardiac rehabilitation in Queensland. Presentation to Quality and Innovation in Cardiac Care 2004 conference, Brisbane, May 7.

*POEMs or PROSE? Dealing with spin in determining optimal care. Presentation to RACP Annual Scientific Meeting, Canberra, May 19.

*Clinician-led hospital-based quality improvement programs in heart failure – from project to state-wide program. Presentation to National Institute of Clinical Studies Heart Failure Forum 2004, Canberra, June 7.


Impact of a quality improvement program targeting in-hospital and post-hospital care of patients hospitalized with acute coronary syndromes or congestive cardiac failure: Optimising cardiac care in Queensland public hospitals: results of a multi-site quality improvement collaboration. Presentations to Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Brisbane, Aug 7-11.

*Optimising quality of acute cardiac care in Queensland public hospitals. Presentation to National Heart and Stroke Health Forum, Brisbane, Aug 20.
Improving care and outcomes of patients admitted with acute cardiac disease. Presentation to 10th Annual Health Outcomes Conference, Canberra, Sept 15.

Using systematic reviews in choosing best bets for reducing numbers of avoidable hospitalisations. Chronic Disease Initiative Workshop, Brisbane, Sept 17.

*Relationship between evidence-based medicine and clinical trials. Presentation to Annual Scientific Meeting of Gastroenterology Society, Brisbane, Oct 8.

*Trends in clinical indicators: Inequities in access to invasive cardiac services. Presentations to Cardiac Collaborative Forum V, Brisbane, Oct 15.


*POEMs and your paediatric practice. Presentation at EBM workshop of the Centre for Evidence-based Paediatric Gastroenterology and Nutrition, The Children's Hospital, Westmead, Sydney, Nov 17.

*Tutor and presenter, Teaching Evidenced-based Practice Workshop, University of Melbourne, Melbourne, Nov 18-19.

*Evidence-based quality improvement; Conducting systematic reviews. Using systematic reviews in clinical decision-making; Using trial evidence in clinical decision-making. Lectures at the 3rd Asia-Pacific Evidence-based Medicine conference, Hong Kong, Nov 26-28.


*Not re-inventing the wheel. Presentation to the PAH Quality and Safety Planning Day, Brisbane, December 9.

**Dr Robyn Wallace**
Genetics I, II, III, SHAID Group Meetings, Jan, Feb, Mar, Brisbane.

Physical Health Problems of Older Adults with Down syndrome, 8th World Congress on Down Syndrome, April, Singapore.

Diagnosis and Management of Epilepsy in Adults with intellectual disability. Full day workshop organised by Epilepsy Queensland, May, Brisbane.

Chairperson and presenter in Roundtable on Helicobacter pylori in adults with intellectual disability. World Congress of IASSID (International Association for the Scientific Study of Intellectual Disability), June, Montpellier.

Vitamin B12 deficiency among adults with intellectual disability, World Congress of IASSID (International Association for the Scientific Study of Intellectual Disability), June, Montpellier.

Gastrointestinal conditions in adults with intellectual disability. Well Beyond 2004 Conference, October, University of Queensland.

Workforce survey of doctors working with children and adults with intellectual disability in Australia. Designed, conducted and analysed in August-October 2004 and presented at strategic planning day, AADDM (Association of Australian Doctors in Developmental Disability Medicine), October, Brisbane.

**Dr Su Mein Yeoh**
Strategies for managing type II diabetes. Presentation to Division of General Practice, May 18.

Cardiovascular risk management. Presentation to Division of General Practice, June 2004.

New therapies in Type 2 Diabetes. RACGP Annual Conference, June 2004.

Indications for thiazolidinedione use in Type 2 Diabetes. Presentation to Southside Division of General Practice, August 2004.

**Awards**
**Dr Robyn Wallace**
Churchill Fellowship awarded August 2004 for further studies in USA in 2005 of tertiary level care for adults with intellectual disability.

**Public Service Relevant to Research**
Associate Professor Ian Scott
Editor in Internal Medicine for Internal Medicine Journal.

Reviewer, Medical Journal of Australia.

Commentator, Evidence-Based Medicine Journal.

Member, Medical Quality Program Board, Queensland Health.

Program Sponsor, Collaborative for Healthcare Improvement, Queensland Health.

Member, Heart Failure Advisory Group, National Institute of Clinical Studies.

Member, National Electronic Decision Support Taskforce.

Chair, Better Practice Toolkit Writing Group, Royal Australasian College of Physicians.

Member, National Framework of Education in Patient Safety.

Chair, Evidence-based Medicine Working Group of the Internal Medicine Society of Australia and New Zealand.

Clinician advisor, Chronic Disease Initiative, Queensland Health.

Member, Education Strategy Implementation Action Group #5 - Physicians as Educators, Royal Australasian College of Physicians.

Member, IMSANZ/RACP 2004 Annual Scientific Meeting Organising Committee, Royal Australasian College of Physicians.

Expert reviewer, Queensland Health Research Ethics Committee.

Member, Innovation Leaders Group, Queensland Health.

**Dr Robyn Wallace**
The research laboratory is investigating mechanisms of hepatic fibrosis in response to chronic liver injury, where normal liver cells are replaced by collagen-containing scar tissue which results in a deterioration of liver function. Hepatic fibrosis can lead to cirrhosis and ultimately, liver transplantation may be required for patients with advanced cirrhosis. For patients with chronic liver injury, hepatic fibrosis can be a very slowly progressing disease and while some patients may develop cirrhosis within ten years, for others it may take thirty to forty years. One focus of the research is to try to determine why there is such a great difference between patients in their rate of disease progression. In particular the Group is interested in (1) defining the role of the renin angiotensin system in hepatic fibrosis caused by chronic Hepatitis C infection (HCV) and non-alcoholic steatohepatitis, (2) determining the relationship between body mass index, liver fat and fibrosis in chronic HCV and (3) defining host genetic factors which influence the host immune response to the virus and the extent of liver injury, and account for some of the variability in progression of HCV.

Key achievements for 2004 include:

- Invited oral presentation by Dr Elizabeth Powell in the Postgraduate Course for the American Liver Meeting
- Award of the University of Queensland Foundation Research Excellence Award to Dr Julie Jonsson
- Award of NHMRC Postgraduate Research Scholarship to Ms Meagan Walsh
- Award of Sasakawa Memorial Foundation Postgraduate Research Scholarship to Ms Michelle Richardson
- The establishment of an international collaboration with Dr Herbert Tilg, University of Innsbruck
- The establishment of an international collaboration with Drs C Balabaud and P Blouilac-Sage, Bordeaux
- Award of special prize for scientific communication to Ms Meagan Walsh at the ASMR Postgraduate Students Conference
- Award of Queensland Gastroenterological Society Young Investigator of the Year to Ms Meagan Walsh
- Award of PhD to Ms Ingrid Hickman
- Successful application to the National Health and Medical Research Council for project grant funding for 2005-2007

Current Research Activities

Clinical Trials
Role of magnetic resonance imaging in monitoring hepatic steatosis and visceral adiposity during treatment.

The effect of renin angiotensin system blockade on the progression of hepatic fibrosis.

Other Research
Investigation of the mechanisms by which steatosis contributes to fibrosis progression in chronic liver disease.
The influence of host genetic factors on disease progression and response to treatment in Chronic Hepatitis C.

Investigation of the mechanisms by which steatosis and obesity impair response to antiviral therapy in Chronic Hepatitis C.

The role of the renin angiotensin system in hepatic fibrosis.

**Financial Support**

**NHMRC Grants**

$82,000, NHMRC, Project Grant. Investigation of the role of the Renin-Angiotensin System in hepatic fibrosis. (J Jonsson)

$50,000, NHMRC, Fellowship, Practitioner Fellowship. (E Powell)

**Other Grants**

$65,000, Lions Medical Research Foundation, Senior Medical Research Fellowship. (J Jonsson)

$35,000, Brewers Foundation, Project Grant. The effect of alcohol on hepatitis C-induced liver disease. (E Powell)

$30,000, Perpetual Trustees, Project Grant. Genetic factors and hepatitis C: role in predicting disease progression. (E Powell)

$10,000, Wesley Research Institute, Project Grant. Role of MRI in monitoring hepatic steatosis and visceral adiposity during treatment. (E Powell)

$25,000, UQ Foundation Research Excellence Award, Project Grant. Determination of the molecular mechanisms by which angiotensin II contributes to hepatic apoptosis and fibrogenesis. (J Jonsson)

**Publications**

**Journal Articles**


**Lectures and Presentations**

(All invited)

Dr Elizabeth Powell

American Association for the Study of Liver Diseases Postgraduate Course (Boston, 2004) on Steatosis as a Cofactor for Other Diseases.

International Academy of Pathology Congress (Brisbane, 2004) on Clinical Patterns of Liver Disease.

Dr Julie Jonsson


Dr Andrew Clouston


Gastrointestinal and liver slide seminar. Royal Prince Alfred Hospital Diagnostic Surgical Pathology Course. Sydney, May 2004.


Recent advances in liver transplant pathology. World Congress of the International Academy of Pathology. Brisbane, October 2004. 

Centres for Health Research - Annual Review 2004
Post Graduate Students

Ingrid Hickman, PhD, Completed in 2004
Meagan Walsh, PhD, Commenced in 2004
Azmat Ali, Masters, Commenced in 2004

Awards
Dr Julie Jonsson
- University of Queensland Foundation Research Excellence Award
Ms Michelle Richardson
- Sasakawa Memorial Foundation Postgraduate Scholarship
Ms Meagan Walsh
- NHMRC Postgraduate Research Scholarship

Public Service Relevant to Research
Dr Elizabeth Powell
- Hepatitis C virus projections working group (national representative of the Australian Liver Association)
- Queensland Hepatitis C Advisory Committee
- Journal Reviewer - Hepatology, Journal of Hepatology
- Assessor, NHMRC project grants

Dr Julie Jonsson
- Assessor - NHMRC project grants
- Judging committees for the IPRS and APA
- Panel member or chairperson of review panels for several confirmations of candidature.

Dr Andrew Clouston
- International Academy of Pathology (Australasian Division) Queensland Councillor
- Journal Reviewer - Hepatology, Journal of Hepatology, Pathology, Liver International
- Convenor, Liver specialty sessions World Congress, International Academy of Pathology, 2004.
- Panel member (RCPA nominee) Quality and Workforce Issues in Colonoscopy. Australian Government Department of Health and Ageing Bowel Cancer Screening Pilot. 2004
The Medical Oncology Department provides a high volume clinical outpatient and inpatient service including patient assessment and chemotherapy treatments. Most clinics operate in a multi-disciplinary format with radiation oncology, surgical and allied health services. Close links are also maintained with the palliative care service and medical psychology. The Department has an active clinical trials program and is currently involved in trials in melanoma, gastroesophageal cancer, breast cancer, pancreatic cancer, colorectal cancer, head and neck cancer and lung cancer (in conjunction with the department of respiratory medicine). The Department has a considerable infrastructure of clinical trial researchers and has scope for further expansion of research activities.

In 2004 the Department again contributed to the international cancer care literature by publishing clinical research in international peer-reviewed journals and had research selected for presentation in abstract form at both local and prestigious international meetings. Other highlights from 2004 included Dr Euan Walpole’s presidency of the Medical Oncology Group of Australia, the peak national professional organisation of Medical Oncologists. In this capacity he represented Australian medical oncologists at major meetings including the annual meeting of the American Society of Clinical Oncology. He also actively contributed to the organising committee for the ACCORD clinical trial development workshop, the first held in the Asia-Pacific region, which involved 60 participants attending with endorsed trial proposals from around the region and an international faculty.

**Current Research Activities**

**Clinical Trials**

The following clinical trials are currently open or in follow-up.

**Associate Professor Thomson**
- Good Prognosis GCT, Germ Cell Tumours
- CC-5013, Malignant Melanoma
- GM301, Malignant Melanoma
- MP-MA-0102, Malignant Melanoma
- PaTrin2, Malignant Melanoma
- PI-88, Melanoma

**Associate Professor Burmeister**
- TROG 03.08, Bone Metastases
- TROG 96.05, Bone Pain 2 Metastatic Cancer
- TROG 99.02, Early Anal Cancer
- Pilot Lung, Lung Cancer
- TROG 03.07, Lung Cancer, Non Small Cell Carcinoma
- TROG 02.01, Malignant melanoma
- QRI-PAH 2, Oesophageal Cancer
- TROG 94.01, Oesophageal Cancer
- QRI-PAH 3, Pancreatic Cancer
- TROG 01.04, Rectal Cancer
- TROG 99.05, NSCLC
**Financial Support**

The department, in conjunction with the haematology service, receives significant recurrent funding from pharmaceutical industry sponsored trials enabling the employment of two full time research nurses and several data managers.

**Publications**

**Journal Articles**


**Published Abstracts**


**Articles accepted for publication**


**Lectures and Presentations**

Lectures and presentations have been given by various staff members to meetings of the Cancer Collaborative Group, South East Queensland Oncology Group and medical students from the University of Queensland.

**Public Service Relevant to Research**

**Associate Professor Damien Thomson**

Oncology editor Internal Medical Journal of Australia

Australian Germ Cell Trials Committee Oncology Education committee, Cancer Control Australia

**Associate Professor Euan Walpole**

Deputy Chairman, Queensland Cancer Fund Medical Scientific Committee
The Mental Health Unit is promoting multidisciplinary, clinically focused research. A particular emphasis is placed on evaluating evidence-based therapies in the setting of day-to-day clinical practice, e.g., positive symptom management for psychosis.

The MIST (mobile intensive support team) recovery and rehabilitation team completed a twelve-month evaluation of a new and innovative service.

During the year, a tertiary assessment service for deaf and hard of hearing people with mental illness was launched. This service has an evaluation project that will help direct further development of specialist mental health services to this high-needs population.

Modern mental health services have close links with carers and consumers and during the year a research project examining the needs of carers was undertaken. A research project initiated by consumers in 2004 will be conducted in 2005 examining the perceptions of consumers of case management. People with mental illness have poor general health. A project examining weight gain on clozapine treatment was completed in 2004.

**Current Research Activities**

- Cognitive behavioural therapy for patients with residual psychotic symptoms.
- Improving mental health services for people who are deaf hard of hearing.
- An investigation of an Arts program for mental health.
- Tipping the scales: an evaluation of a healthy living program.
- Consumer evaluation of case management.
- Carer’s evaluation of a family support program.
- The impact of a group therapy program on social anxiety.

**Financial Support**

- An investigation of an Arts program mental health. PAHMHS, Dr F Dark (PI). UQ and Access Arts collaborators. Funding body: Australia Council $50,000 and Princess Alexandra Hospital $50,000 for 1 year.
- Consumer evaluation of case management PAHMHS M Calvird (PI). Brooke Red Centre collaborators Organon funding body $500 for 1 year (2004).

**Lectures and Presentations**

- Planning for work: The role of neuropsychological testing in assisting people with serious mental illness achieve their goals. Presented by Joanne Oram.
- Can the NUCOG (neuropsychiatry unit cognitive screen) screen for neuropsychological deficits in serious mental illness.
The Queensland Health Pathology Services Microbiology Department at the Princess Alexandra Hospital provides laboratory diagnostic and consultative services in clinical microbiology to Princess Alexandra, Queen Elizabeth II, Logan and Redland Hospitals. The laboratory holds a Therapeutic Goods Administration licence for tissue transplantation screening and provides screening services for all Queensland Health tissue banks and for Queenslanders Donate. It also has special expertise in identification and typing of multi-resistant bacteria and in antimicrobial susceptibility testing. Members of staff participate in teaching activities for the University of Queensland, Griffith University and the Royal College of Pathologists of Australasia.

The major research activities in the laboratory relate to antimicrobial resistance, multi-resistant organisms and hospital infection. Collaborative research is undertaken with the Australian Group for Antimicrobial Resistance and the CRC for Diagnostics. The Department also participates in a number of collaborative studies funded by the pharmaceutical industry. Collaborative research into community-acquired methicillin resistant staphylococcus aureus (MRSA) has included development of novelle typing techniques. Studies of the epidemiology of community-acquired MRSA are ongoing. Application of real-time nucleic acid amplification techniques to screening for multi-resistant organisms in the clinical laboratory is being investigated.

**Current Research Activities**

**Clinical Trials**
- Quintiles Fujisawa Study (FG-463-21-08) to determine the efficacy and safety of micafungin versus liposomal amphoterocin B in treating patients with invasive candidiasis or candidaemia.

**Other Research**
- Epidemiological and microbiological characterisation of infections caused by community-acquired methicillin-resistant Staphylococcus aureus (cMRSA) in southeast Queensland (SEQ), with particular reference to pathogenicity.
- Bristol Myer's Squibb SENTRY study (International).
- Merck's Global Study for monitoring antimicrobial resistance trends (SMART) study.
- Australian Group on Antimicrobial Resistance (AGAR) Annual studies S.pneumoniae, S. aureus and bacteremia caused by enterococci. Other periodical studies include Gram negatives (E. coli, Klebsiella spp. and Enterobacter spp.) and more detailed studies on enterococci.
- The National VRE Network (NaVREN) Study. The Department is the Queensland reference laboratory for the collection and study of Vancomycin Resistant Enterococci (VRE) and work in conjunction with the National reference laboratory, The Women’s and Children’s Hospital in Adelaide.
Pfizer’s Australian Candidaemia Study (Protocol number FCA-0-1). Home continuous infusion timentin study (ticarcillin/clavulanic acid) for the Infection Management Services Southern Queensland, Princess Alexandra Hospital, Brisbane.

Financial Support
Grants
$810.00, SERTF 1029. Epidemiological and microbiological characterisation of infections caused by community-acquired methicillin-resistant Staphylococcus aureus (CMRSA) in Southeast Queensland (SEQ), with particular reference to pathogenicity. Queensland Health Pathology and Scientific Services.

Financial Support
 Grants

$810.00, SERTF 1029. Epidemiological and microbiological characterisation of infections caused by community-acquired methicillin-resistant Staphylococcus aureus (CMRSA) in Southeast Queensland (SEQ), with particular reference to pathogenicity. Queensland Health Pathology and Scientific Services.

$40,595.00. SERTF (PROMART #587). Bacterial nosocomial screening using real time PCR which is a collaborative project with Dr Flavia Huygens, CRC for Diagnostics, QUT. Queensland Health Pathology and Scientific Services.

Publications
Journal Articles


Published Abstracts


Articles Accepted for Publication

Awards
Queensland Health Pathology and Scientific Services Quality Award for 2004

Public Service Relevant to Research
Dr Graeme R Nimmo
Member, Editorial board of ‘Pathology’
Deputy Chairman, Australian Group for Antimicrobial Resistance
Member, National executive committee of the Australian Society for Antimicrobials
Member, National Pathology Accreditation Advisory Council

Dr Jacqueline J Harper
Member, Australian Society for Microbiology Foundation Committee

Jacqueline M Schooneveldt
Queensland co-coordinator for The National VRE Network (NaVREN)
The Princess Alexandra Hospital Nephrology Department enjoys the best patient survival rates of any dialysis and kidney transplant centre in Australia and New Zealand. The unit performs over one hundred and ten renal transplants per year (more than any other unit in the southern hemisphere) and cares for approximately six-hundred established transplant patients and three hundred and fifty dialysis patients. Each year, the Unit provides over 18,000 occasions of outpatient service. The team is heavily involved in providing education to patients, allied health professional staff, general practitioners, graduate medical students, interns, residents, registrars and both renal and non-renal specialists.

A large number of research activities are conducted at both the clinical and basic science levels. The aim of the clinical research is to further improve outcomes for patients with kidney disease. In 2004, the Princess Alexandra Hospital Renal Research Group received the endorsement of Kidney Health Australia and the Australian and New Zealand Society of Nephrology to act as the co-ordinating centre for the Australasian Renal Trials Network, which will run investigator-initiated and industry-sponsored multi-centre renal clinical research trials in Australasia. In 2003, the Cardiovascular, Metabolic and Renal Research Groups received funding for 5 years from the National Health and Medical Research Council as a "Centre of Clinical Research Excellence". There are over ninety projects currently underway in the Department, examining such diverse areas as infection control, anaemia management, cardiac risk factor intervention, optimal timing of dialysis commencement, obesity and kidney disease, enhancement of dialysis adequacy, novel prevention strategies for acute renal failure, preservation of kidney function, monitoring healthcare delivery quality, optimization of the safety of anti-rejection drug protocols in transplantation, immunosuppressive drug pharmacokinetic studies, and skin cancer and lymphoma prevention in kidney transplant patients. Over the last four years, several of the Unit’s research trials have earned national research awards (including the Australian Kidney Foundation Clinical Research Award) and prompted changes in clinical practice guidelines. The renal group’s basic science research focus is the investigation of mechanisms underpinning pathological kidney cell growth and fibrogenesis with a view to developing novel therapeutic strategies for the management of acute renal failure, chronic renal scarring and failure, and renal cell carcinoma.

**Current Research Activities**

**Clinical Trials**

**A. Peritoneal Dialysis**

A prospective comparison of the value of early versus late peritoneal equilibration tests in the assessment of peritoneal permeability in CAPD patients (Johnson DW, Wiggins K, Blizzard S).

A randomised, open-label, prospective controlled trial of multiple risk factor intervention on atherosclerosis, vasoreactivity and cardiac ischaemia in pre-dialysis and dialysis patients. LANDMARK Trial (Isbel N, Johnson DW, Marwick T).

Early variability of peritoneal permeability as a survival factor in peritoneal dialysis patients (Johnson DW, Wiggins K, Blizzard S).
A comparison of peritoneal equilibration test results using 2 different dialysate glucose concentrations (Johnson DW, Blizzard S).

The impact of obesity on peritoneal dialysis outcomes in Australia and New Zealand (Johnson DW, McDonald S, Collins J).

Predictors of peritonitis in the Australian and New Zealand PD patient populations (Johnson DW, McDonald S, Collins J).

Predictors of peritoneal transport status in the Australian and New Zealand PD patient populations (Johnson DW, McDonald S, Collins J).

The impact of peritoneal transport status on peritoneal dialysis patient outcomes in Australia and New Zealand. (Johnson DW, McDonald S, Collins J).

Predictors of residual renal function decline in Australian and New Zealand peritoneal dialysis patients (Johnson DW, McDonald S, Collins J).

The bal ANZ trial - A multicentre randomised controlled trial of Balance® in Australian and New Zealand PD patients (Johnson DW, Brown F, Woods F, Pidcock R).

The impact of peritoneal ultrafiltration volumes on peritoneal dialysis patient survival (Johnson DW, Wiggins K).

Predictors of a favourable response to icodextrin in peritoneal dialysis patients with ultrafiltration failure. (Wiggins KJ, Rumpsfeld M, Blizzard S, Johnson DW).

Anti-infective agents to prevent peritonitis in peritoneal dialysis: a systematic review of randomized controlled trials. (Strippoli GFM, Tong A, Johnson DW, Schena FP, Craig JC).

Catheter-related interventions for the prevention of peritonitis in peritoneal dialysis: A systematic review of randomized controlled trials. (Strippoli GFM, Tong A, Johnson DW, Schena FP, Craig JC).

White cell count at commencement of peritoneal dialysis strongly predicts subsequent patient survival. (Johnson DW, Wiggins Kj, Armstrong KA, Campbell SB, Isbel N, Hawley CM).


A retrospective observational cohort study assessing the clinical outcomes of amputation in dialysis patients (Hawley C, Isbel N, Campbell SC, Johnson DW).

The relationship between peritoneal transport status and indices of atherosclerosis and vasoreactivity in peritoneal dialysis patients (Armstrong K, Johnson DW, Isbel N).

A randomised controlled trial of oral versus intramuscular B12 administration in dialysis patients (Wiggins K, Johnson DW, Isbel N).

B. Haemodialysis


A randomised controlled trial of fludrocortisone for the treatment of hyperkalaemia in haemodialysis patients. (Johnson DW, Wiggins K).
A randomized controlled trial of Medihoney versus mupirocin in haemodialysis patients with tunneled, cuffed haemodialysis catheters (Mudge D, Hothersall E, Isbel N, Campbell SB, Hawley C, Johnson DW).

The impact of nocturnal home haemodialysis on patient outcomes (Hawley C, Isbel N, Campbell SB, Johnson DW).

A pharmacokinetic study of pre- versus post-haemodialysis dosing of aminoglycosides (Teigen M, Duffull S, Johnson DW).

Contemporaneous outcomes of bacteraemias in haemodialysis patients (Isbel N, Hawley C, Campbell SB, Johnson DW).


Correlates of subclinical left ventricular dysfunction in endstage renal disease: Influence of endothelial function and cardiovascular risk factors. (Fathi R, Isbel N, Khoury V, Case C, Haluska B, Johnson DW, Marwick TH)

A randomised, open-label, prospective controlled trial of multiple risk factor intervention on atherosclerosis, vasoreactivity and cardiac ischaemia in pre-dialysis and dialysis patients. LANDMARK Trial (Isbel N, Johnson DW, Marwick T).

Efficacy and side-effect profile of sevelamer hydrochloride used in combination with conventional phosphate binders. (Sturtevant JM, Hawley CM, Reiger K, Johnson DW, Campbell SB, Burke JR, Bofinger A, Isbel NM.).

A retrospective observational cohort study assessing the clinical outcomes of amputation in dialysis patients (Hawley C, Isbel N, Campbell SC, Johnson DW).

A prospective controlled trial of superflux versus high flux dialysis membranes on homocysteine clearance in haemodialysis patients (Mudge D, Johnson DW, Campbell SB, Petrie JJ, Isbel N, Hawley C).

A prospective trial of intradermal hepatitis B vaccination in dialysis patients who have failed to seroconvert following standard subcutaneous vaccination (Wiggins K, Hothersall E, Johnson DW, Campbell SB, Isbel N, Playford G, Hawley C).

A study of end-stage renal failure patients’ perspectives on their treatment regimens. (Taylor S, Howells J).

A Double-Blind, Randomised, Placebo-Controlled Study of an Oral Calcimimetic Agent (AMG073) in Secondary Hyperparathyroidism of End Stage Renal Disease. (Johnson DW, Evans M).

A Multicentre, Randomised, Open-label Study to Compare the Efficacy and Safety of an Oral Calcimimetic Agent (AMG073) When Two Different Vitamin D Regimens are Used in Subjects with Secondary Hyperparathyroidism of End-stage Renal Disease (ESRD). (Johnson DW, Evans M)

Oral Calcimimetic Agent (AMG073) When Two Different Vitamin D Regimens are Used in Subjects with Secondary Hyperparathyroidism of End-stage Renal Disease (ESRD). (Johnson DW) (Beal B).

A pure red cell aplasia surveillance program in haemodialysis patients receiving erythropoietin (Sudak J, Johnson DW).

A Double-Blind, Randomised, Placebo-Controlled Study of the effect of Rosuvastatin on cardiovascular outcomes haemodialysis patients (AURORA Trial) (Isbel N, Martin A, Evans M).

A controlled crossover study comparing homocysteine clearance in FX class high flux and standard high-flux.

A randomized, placebo-controlled study to assess the effects of Cholesterol-lowering therapy with a combination of simvastatin and Ezetimibe on the Risk of Major Cardiovascular Complication Among Individuals with Chronic Kidney disease. (Johnson DW, Sudak J).

A randomized, controlled, open-label, multi-center, parallel-group study to demonstrate the efficacy and safety of RO0503821 when administered intravenously for the maintenance treatment of anemia in patients with chronic kidney disease who are on dialysis. (Johnson DW, Evans M).

The initiating dialysis early and late (IDEAL) study. (Johnson DW, Martin A).

C. Transplantation

A randomised, open-label, prospective controlled trial of multiple risk factor intervention on atherosclerosis, vasoreactivity and cardiac ischaemia in renal transplant recipients. Transplant LANDMARK Trial (Armstrong K, Isbel N, Johnson DW, Marwick T, Elliot A).

A randomized controlled trial assessing the impact of oral iron supplementation on mycophenolate mofetil absorption in renal transplant recipients (Johnson DW, Campbell SB, Hawley CM, Isbel N, Nicol DL, Taylor P, Pillans P).


A formula for the prediction of renal allograft function
following renal transplantation. (Hawley C, Isbel N, Campbell SB, Johnson DW, Nicol DL).

The role of free mycophenolic acid monitoring in renal transplant recipients with hypoalbuminaemia. (Atcheson BA, Taylor PJ, Kirkpatrick CMJ, Duffull SB, Mudge DW, Pillans PI, Tett SE, Johnson DW).

A prospective, non-controlled study of the role of memory T cells for Epstein-Barr virus in renal allograft rejection. (Johnson DW, Campbell SB, Franzen K, Burrows S).


Prognostic value of renal vein resistance indices in renal transplant recipients. (Hawley C).

The role of tumourectomised kidneys as a potential source of allografts for renal transplantation (Nicol DL, Johnson DW, Campbell SB, Isbel N, Hawley C, Martin A).


Polycystic kidneys as a potential source of allografts for renal transplantation (Nicol DL, Johnson DW, Campbell SB, Isbel N, Hawley C).

A randomized, open-label study of continuous therapy with cyclosporine and sirolimus versus induction with cyclosporine and sirolimus followed by continuous therapy with sirolimus in renal allograft recipients.

An Open-Label Extension Study of the safety of Long-term Administration of Sirolimus (RapamuneTM) in Solid Organ Transplant Recipients (Incorporating Amendment 1 to Protocol ) (Campbell SB).

A randomized, open-label, comparative evaluation of conversion from calcineurin inhibitors to sirolimus versus continued use of calcineurin inhibitors in renal allograft recipients (incorporating amendment 1 to protocol) 0468H1-316-AP. (Campbell SB, Sonnenburg K).

An observational long-term, multicentre, study of the impact of therapeutic decision making for transplant recipients prescribed Neoral under conditions of normal clinical practice. (Campbell SB, Martin A).

A one year, randomized, open label, parallel group study to investigate the safety and the effect of Myfortic(TM) (ERL080) in combination with either full dose or reduced dose Neoral, in De Novo Kidney Transplant Recipients.

A One Year, Randomized, Open label, Parallel Group Study to Investigate the Safety and the Effect of Myfortic (ERL080) in Combination with Either Full Dose or Reduced Dosed Neoral, in De Novo Kidney Transplant Recipients.

A Double-Blind, Randomised, Placebo-Controlled Study of the effect of Rosuvastatin on cardiovascular outcomes in haemodialysis patients (AURORA Trial) (Johnson DW, Martin A).


Sirolimus Protocol 0468H1-310-AU: A Randomized, Open-label Study of Continuous Therapy with Cyclosporine and Sirolimus versus Induction with Cyclosporine and Sirolimus Followed by Continuous Therapy with Sirolimus in Renal Allograft Recipients (Campbell SB, Martin A).

A randomized, open-label, comparative evaluation of conversion from calcineurin inhibitors to sirolimus versus continued use of calcineurin inhibitors in renal allograft recipients (Campbell SB, Sonnenburg K).
A twelve-month, randomized, multicenter, open-label study to investigate the clinical outcomes of two immunosuppressive regimens of Myfortic™ with short-term steroid use or free of steroids compared with a regimen of Myfortic™ with standard steroids in de novo kidney recipients receiving Simulect® and Neoral® - FREEDOM Study (Sonnenburg K).

An Open, prospective, randomized, controlled multicentre study comparing Fixed Dose vs Concentration Controlled mycophenolate mofetil regimens for de novo patients following renal transplantation. (Campbell SB, Martin A).

Pre-transplant pharmacokinetics as a predictor of dose requirement post renal transplantation. A multicentre, open, prospective, 2-arm, phaseV study of Prograf (tacrolimus) in renal transplant patients. (Campbell SB, Sonnenburg K).

Free fatty acids are associated with obesity, insulin resistance and atherosclerosis in renal transplant recipients. (Armstrong K, Hiremagalur B, Campbell S, Hawley C, Prins J, Marks L, Marwick T, Johnson DW, Isbel N).


Abnormal glucose tolerance is highly prevalent in RTR and is associated with other cardiovascular risk factors. (Armstrong K, Prins J, Johnson DW, Isbel N).


Renal transplant recipients with impaired glucose tolerance - gluttony versus sloth. (Armstrong K, Prins J, Johnson DW, Isbel N).

D. General Nephrology

A multicentre, randomized controlled trial of the effect of cholesterol reduction on cardiovascular end-points in patients with chronic renal failure. (Neal B, Johnson DW, Pollock C, Walker R, McDonald S)

Initiation of Dialysis Early and Late (IDEAL) Trial (Johnson DW, Martin A).

Risk Stratification of Patients with End Stage Renal Disease: Results of Screening Strategies Incorporating Clinical Risk Scoring and Dobutamine Stress Echocardiography. (Rakhit D, Isbel N, Johnson DW, Armstrong K, Marwick TH).


Prediction of Events using Abnormal Diastolic Filling and Systolic Velocity by Tissue Doppler Imaging and Left Atrial Size in Patients with Chronic Kidney Disease. (Rakhit D, Isbel N, Johnson DW, Marwick TH).

Aggressive Risk Factor Modification Does Not Influence Changes in Strain Rate and Integrated Backscatter in Patients with Chronic Kidney Disease. (Rakhit D, Isbel N, Johnson DW, Marwick TH).

Progression of increased valve density by backscatter analysis in ESRF. (Isbel N, Johnson DW, Marwick TH).


Irbesartin Versus Placebo in Combination with Standard Cardiovascular Protection ACE-I Therapy with Ramapril for the treatment of Albuminuria in Subjects at Elevated Cardiovascular Risk (Isbel N, Pidcock R)

E. Basic Science Research

Erythropoetin as a novel renoprotective agent in vitro and in vivo models of acute renal failure. (Johnson DW, Vesey D, Gobe G, Endre Z).

The role of darbepoetin alpha as a novel renoprotective agent in a rat model of ischaemic acute renal failure (Johnson DW, Vesey D, Gobe G, Endre Z).

The effect of erythropoetin alpha on delayed graft function in a dog model of renal transplantation (Forman C, Nicol DL, Johnson DW).

The role of macrophages and secreted interleukin-1b in renal tubulointerstitial fibrosis (Vesey DA, Cheung C, Johnson DW).

The role of silibinin in renal cell carcinoma (Cheung C, Vesey DA, Johnson DW, Nicol DL).

Cordyceps sinensis as a novel renoprotective agent in experimental acute and chronic renal failure (Gobe G, Johnson DW).

Modulating apoptosis in renal cell carcinoma (Johnson DW, Gobe G).

The myofibroblast as a target for controlling renal fibrosis using in vitro and in vivo models (Cuttle, Endre Z, Johnson DW, Gobe G).

The role of reactive oxygen species and protein kinase C in vitro models of human renal failure.

Targeting the myofibroblast to limit renal fibrosis after cancer therapies.

Strategies for targeted renal delivery of viral vectors for controlled and long-term gene therapy against chronic renal failure (Johnson DW, Gobe G).

The role of protease activated receptors (PARs) in progressive renal scarring, inflammation and failure. (Vesey D, Gobe G, Johnson DW).

Strategies for modifying acute renal ischemic injury: increasing the mobilisation and maturation of endothelial progenitor cells. (Pat B, Johnson DW, Gobe GC).

Financial Support

**NHMRC Grants**

$84,000, NHMRC / AHMAC / Industry. IDEAL Trial. (CA Pollock)

$27,000, NHMRC CCRE grant. A randomised, open-label, prospective controlled trial of multiple risk factor intervention on atherosclerosis, vasoactivity and cardiac ischaemia in renal transplant recipients. Transplant LANDMARK Trial. (TH Marwick)

$40,000, NHMRC Project Grant. A randomized Placebo controlled study to assess the effects of Cholesterol-lowering therapy with a combination of simvastatin and Ezetimibe on the Risk of Major Cardiovascular Complication Among Individuals with Chronic Kidney disease. (DW Johnson)

$7,500, NHMRC. Dynamics of Cytotoxic Lymphocyte Responses to Human Cytomegalovirus in Solid Organ Transplant Patients. (DW Johnson, S Campbell)

$7,600, Novartis. An extension to a 1 year multicenter, randomized, open label, parallel group study of the safety, tolerability and efficacy of two doses (1.5 and 3 mg/day) of Certican™ (RAD001) with Simulect®, corticosteroids and optimized administration of Neoral® in de novo renal transplant recipients. (S Campbell)

$25,000, KHA Clinical Trials Network Seeding Grant. The Australasian Kidney Trials (AKT) Network. (CM Hawley)

$25,000, School of Population Health. The Australasian Kidney Trials (AKT) Network. (CM Hawley)

$75,000, University of Queensland. The Australasian Kidney Trials (AKT) Network. (CM Hawley)

$20,000, Amgen. The role of darbepoietin alpha as a novel renoprotective agent in a rat model of ischaemic acute renal failure. (DW Johnson)

$20,000, Janssen-Cilag. Erythropoietin as a renoprotective agent in renal transplantation. (DW Johnson)

$90,000, UQ. A research program into the metabolic syndrome. (J P Prins)

$90,000, University of Queensland. The Australasian Kidney Trials (AKT) Network. (CM Hawley)

$25,000, School of Population Health. The Australasian Kidney Trials (AKT) Network. (CM Hawley)

$20,000, Janssen-Cilag. Erythropoietin as a renoprotective agent in renal transplantation. (DW Johnson)


$3,000, Wyeth, An Open-Label Extension Study of the Safety of Long-term Administration of Sirolimus (Rapamune™) in Solid Organ Transplant Recipients - Protocol 0468EL-313-AU. (S Campbell)

$1,000, Wyeth, Sirolimus Protocol 0468H1-313-AU: A Randomized, Open-label Study of Continuous Therapy with Cyclosporine and Sirolimus versus Induction with Cyclosporine and Sirolimus Followed by Continuous Therapy with Sirolimus in Renal Allograft Recipients. (S Campbell)

$10,000, Wyeth. A placebo-controlled, open-label, comparative evaluation of conversion from calciuminhibitors to sirolimus versus continued use of calciuminhibitors in renal allograft recipients (incorporating amendment 1 to protocol) 0468H1-316-AP. (S Campbell)

$5,337, Novartis. A 1 year multicenter, randomized, open label, parallel group study of the safety, tolerability and efficacy of two doses (1.5 and 3 mg/day) of Certican™ (RAD001) with steroids and optimized administration of Neoral® in de novo renal transplant recipients. (S Campbell)

$6,700, Novartis. An observational long-term, multicentre, study of the impact of therapeutic decision making for transplant recipients prescribed Neoral under conditions of normal clinical practice. (S Campbell)

$32,400, Novartis. A one-year, randomized, open label, parallel group study to investigate the safety and the effect of Myfortic™ (ERL080) in combination with either full dose or reduced dose Neoral™ in de novo kidney transplant recipients 0780B0A2405AU01. (S Campbell)

$23,100, Novartis. A twelve-month, randomized, multicenter, open-label study to investigate the clinical outcomes of two immunosuppressive regimens of Myfortic™ with short-term steroid use or free of steroids compared with a regimen of Myfortic™ with standard steroids in de novo kidney recipients receiving Simulect® and Neoral® - FREEDOM Study. (S Campbell)

$5,600, Amgen. A Multicenter, Randomized, Open-label Study to Compare the Efficacy and Safety of an Oral Calcimimetic Agent (AMG 073) in Secondary Hyperparathyreoidism of End-stage Renal Disease. (DW Johnson)

$5,000, Amgen. A Multicenter, Randomized, Open-label Study to Compare the Efficacy and Safety of an Oral Calcimimetic Agent (AMG 073) When Two Different Vitamin D Regimens are Used in Subjects with Secondary Hyperparathyreoidism of End-stage Renal Disease (ESRD). (DW Johnson)

$12,400, Amgen. A Placebo-controlled-, Double-blind, Extension Study to Assess the Long-term Safety of an Oral Calcimimetic Agent (AMG 073) in Secondary Hyperparathyreoidism of End-stage Renal Disease. (DW Johnson)

$7,600, Novartis. An extension to a 1 year multicenter, randomized, open label, parallel group study of the safety, tolerability and efficacy of two doses (1.5 and 3 mg/day) of Certican™ (RAD001) with Simulect®, corticosteroids and optimized administration of Neoral® in de novo renal transplant recipients. (S Campbell)


$4,335, Baxter. A Double Blind, Randomized, Multicenter, Placebo-controlled, Parallel Group Study to compare the Effects of Rosuvastatin (10mg oral) with placebo on Assessment of Survival and cardiovascular Events when given to subjects with End Stage Renal Failure on Chronic Haemodialysis Treatment. (DW Johnson)
$12,120, Astra Zeneca. An Open, prospective, randomized, controlled multi-centre study comparing Fixed Dose vs Concentration Controlled mycophenolate morfil regimens for de novo patients following renal transplantation. (N Isbel)

$2,370, Jansen-Cilag. An active safety surveillance plan to conduct serologic testing for anti-erythropoietin antibodies and prospectively monitor the incidence of Pure Red Cell Aplasia (PRA) in patients receiving epoetin-alfa therapy. EPO-IMU-402. (DW Johnson)

$10,000, QUIP. Bloodstream infections in haemodialysis patients: improving preventative and management strategies. (N Isbel, G Playford)

Publications

Journal Articles


Published Abstracts

Armstrong KA, Campbell SB, Hawley CM, Prins J, Johnson DW, Isbel NM. Abnormal glucose tolerance is highly prevalent in renal transplant recipients and is associated with other cardiovascular risk factors. Presented at the 40th Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology, Adelaide, September 1-3, 2004.


Armstrong KA, Hiremagalur B, Campbell SB, Hawley CM, Prins J, Marwick TH, Haluska BA, Johnson DW, Isbel NM. Increased free fatty acids are an independent risk factor for atherosclerosis in renal transplant recipients and are associated with other features of the metabolic syndrome. Presented at the 40th Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology, Adelaide, September 1-3, 2004.


Armstrong KA, Rakhit D, Case C, Johnson DW, Isbel NM, Marwick TH. Development of a Patient-tailored Use of Dobutamine Stress Echo in Patients with Chronic Renal Failure. Presented at the Annual Scientific Meeting of American Society of Nephrology, St Louis, Missouri, October 29 – November 1, 2004.

Armstrong KA, Rakhit D, Johnson DW, Isbel NM, Marwick TH. Prediction of Cardiovascular Events by Combining Dobutamine Stress Echocardiography and a Scoring Algorithm to Risk Stratify Patients with Chronic Renal Failure. Presented at the Annual Scientific Meeting of American Society of Nephrology, St Louis, Missouri, October 29 – November 1, 2004.


Rumpf M, McDonald SP, Johnson DW. Peritoneal transport status is a predictor of outcome in the Australian and New Zealand peritoneal dialysis population. Presented at the 40th Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology, Adelaide, September 1-3, 2004.

Rus G, Eris J, Walker R, Campbell S, Stambe C, on behalf of the RAD2306/7 study group. Therapeutic drug monitoring (TDM) for everolimus: modelling of efficacy based on two kidney transplantation trials with implemented TDM. Presented at the Annual Scientific Meeting of the Transplantation Society of Australia and New Zealand. Canberra, April 2004.


Tett SE, Atcheson BA, Taylor PJ, Mudge DW, Johnson DW, Pillars P. Pharmacokinetics and pharmacodynamics of myophenolic acid and glucuronide early after renal transplantation. Presented at the 8th World Congress of Clinical Pharmacology and Therapeutics, Brisbane, 1-6 August 2004.


Van Eps C, Jeffreys J, Carpenter S, Gilmore A, Spanner M, Johnson DW, Campbell SB, Isbel NM, Burkej, Hawley CM. Bone mineral metabolism in haemodialysis patients performing alternate nightly or four nights per week dialysis. Presented at the Annual Scientific Meeting of American Society of Nephrology, St Louis, Missouri, October 29 - November 1, 2004.


Van Eps CL, Jeffreys J, Carpenter S, Gilmore A, Spanner M, Johnson DW, Campbell SB, Isbel NM, Burkej, Hawley CM. Excellent phosphate control in patients performing alternate nightly or four nights per week haemodialysis. Presented at the 40th Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology, Adelaide, September 1-3, 2004.


Wiggins KJ, Johnson DW, Armstrong KA, Campbell SB, Isbel NM, Hawley CM. White cell count at commencement of peritoneal dialysis strongly predicts subsequent patient survival. Presented at the Annual Scientific Meeting of American Society of Nephrology, St Louis, Missouri, October 29 - November 1, 2004.


**Book Chapters**


**Articles Accepted for Publication**


Johnson DW. CRP as an outcome predictor in peritoneal dialysis. Perit Dial Int (In press).


“Clinicopathological conference presentation,” Asia Pacific Forum in Nephrology, May, Melbourne.

“Is it how low we go and how we go?,” Sanofi Cardiovascular Research Weekend, August 2004.


“Estimated GFR calculation – we can but should we?” Australasian Creatinine Consensus Workshop, November 2004.

**Dr Nicole Isbel**


“Cardiovascular Disease in CRF” Australian and New Zealand Renal Pharmacy Practice Symposium, March, Brisbane


“Aggressive Intervention in Traditional Cardiovascular Risk Factors In Patients with Chronic Renal Failure Does Not Improve Atheroma Burden, Cardiovascular Function or Outcome” ANZSN Adelaide, September 2004.

**Associate Professor Carmel Hawley**

Case Discussion, at Postgraduate Course in Nephrology, 40th Annual Scientific Meeting of the Australian and New Zealand Society of Nephrology, Adelaide, September 2004.


“Quality Indicators” Renal collaborative for Healthcare Improvement (CHI), September 2004.

“Calcineurin Free Immunosuppression” at Queensland Transplant Symposium, October 8, Brisbane.


Post Graduate Students

Catherine Cheung,
PhD, Completed in 2004

Alison Rennick,
BSc Honours, Completed in 2004

Colin Forman,
MD, Commenced in 2004

Kirsty Armstrong,
M Phil

Awards

Dr Carolyn van Eps
Richard Kemp Prize for best oral presentation at the Qld RACP Advanced Trainee’ Annual Scientific Meeting 2004

Dr Kate Wiggins
Runner up Prize, Kidney Health Australia Clinical Nephrology Research Award 2004

Public Service Relevant to Research

Professor David Johnson
Chair, Kidney Check Australia Taskforce 2004 – present
Executive Member of Operations Secretariat, Australasian Kidney Trials (AKT) Network
Caring for Australians with Renal Impairment (CARI) Clinical Practice Guidelines Steering Committee Member 2000 – present
Clinical Co-ordinator, Queensland Health Southern Zone Renal Clinical Services Network 2004 – present
Australian and New Zealand Dialysis and Transplantation Association (ANZDATA) Registry Management Committee Member 2000 – present
ANZDATA Registry Peritoneal Dialysis Advisory Committee Member 2000 – present
Australian and New Zealand Dialysis Nephrology Transplantation Committee Member 2000 - present
Peritoneal Dialysis Project Manager, ANZDATA Registry 2001 – present
Pure Red Cell Aplasia Global Scientific Advisory Board 2003 – present
Baxter Healthcare, Global Dialysis Advisory Board 2003 - present
Working Party Member of ANZSN CARI Guidelines for Prevention of Renal Failure Progression 2000 – present
Working Party Member of Australian Cancer Network-National Clinical Practice Guidelines for Post-Transplant Lymphoproliferative Disorder and Other Immunodeficiency-Related Lymphomas 2001 – present
Queensland Renal Collaborative for Healthcare Improvement Steering Committee Member 2004-present
Working Party Member of Queensland Chronic Disease Implementation Initiative 2004 - present
Working Party Member of Australian and New Zealand Clinical Practice Guidelines on Icodextrin Usage in Peritoneal Dialysis 2001 – present
Council of Healthcare Advisors (Gerson Lehrman) 2004 - present
Member of Global Dialysis Advisory Board, Baxter Healthcare, 2003 – present
Member of Global Dialysis Advisory Board, Baxter Healthcare, 2003 - present
Member of Baxter Consultant Advisory Board 1999 – present
Member of Baxter Dialysis Unit Consultant Review Board 2004 – present
Member of Abbott Tarka Consultant Advisory Board 2004 - present
Member of Janssen-Cilag Consultant Advisory Board 1999 – present
Member of Bristol-Myers Squibb Consultant Advisory Board 2001 – present
Member of Bayer Consultant Advisory Board 2003 – present
Chair, Amgen National Renal Symposium Scientific Programming and Education Committee 2002 – present
Member of Baxter Iron Therapeutics Advisory Panel 2002 – present
Review Committee Member for Australian Kidney Foundation Bootle Grant Applications 2002 – present
Editorial Board Member for Peritoneal Dialysis International 2003 - present
Reviewer for Nephron 1998 – present
Reviewer for Nephrology 1999 – present
Reviewer for Experimental Nephrology 1999 – present
Reviewer for the Australian and New Zealand Journal of Medicine / Internal Medicine Journal 1999 – present
Reviewer for Nephrology Dialysis and Transplantation 1999 – present

Dr Scott Campbell
Chairman, CARI Working Group on Renal Transplant Recipient Suitability.
Queensland Representative on Renal Transplant Advisory Committee.
Novartis Pharmaceuticals, Member of Advisory Board.
Roche Pharmaceuticals, Member of Advisory Board.
Janssen-Cilag, Member of Advisory Board for Tacrolimus Consensus Document.
Wyeth Pharmaceuticals, Member of Advisory Board.

Dr Nicole Isabel
Member of National Vascular Disease Prevention Alliance 2001-
Member of Scientific Programme and Education Committee, ANZSN 2001-
Chairman CARI guideline working group on ‘Urine protein as a diagnostic test’, 2002-
Member of CV-DATA 2001-

Associate Professor Carmel Hawley
Member, Specialist Advisory Committee for the Australian and New Zealand Society of Nephrology, 1997 - 2004
Chair, Specialist Advisory Committee for the Australian and New Zealand Society of Nephrology, 2002-2004
Member, Caring for Australians with Renal Impairment working group for guidelines on bone disease in the pre-dialysis patient; 1999- present
Co-Chair, Caring Australians with Renal Impairment working group for guidelines on biochemical and haematological targets; 2002- present
Inaugural Chair, Australasian Kidney Trials Network, 2004 – present
Member, Board of Kidney Health Australia, 2004 – present
Lead Clinician, Renal Collaborative for Healthcare Improvement, 2001 – present

Research - Key to Health
The Department of Neurology provides specialist clinical neurology services to the local community south of the Brisbane River. The department covers all facets of the discipline of neurology with an emerging major interest in movement disorders research, particularly in the areas of Parkinson’s disease and Dystonia.

The research activities of the department are co-ordinated by the Department’s Research Fellow, Dr George Mellick and are listed in the report under Academic Unit in Geriatric Medicine.

**Publications:**


**Presentations**

The Department of Neurosurgery continued collaborations with a number of groups promoting basic and clinical science research. The trial of Olfactory Ensheathing Cells, in partnership with Griffith University, is ongoing. In addition, closer links have been developed with Endocrinology through the project by Dr Sarah Olson studying pituitary neoplasia.

The group have also negotiated the development of collaborations with the Institute of Molecular Biology and the Queensland Brain Institute for Brain Tumour Research in 2005.

Current Research Activities
Clinical Trials
Spinal cord regeneration with autologous olfactory ensheathing cells implanted in human spinal cord injury: a Phase 1 study.

Other Research
The kinematics of the cervical spine after fusion. (A Nowitzke and Bazina)
Endoscopic decompression for lumbar canal stenosis – an observational study. (A Nowitzke)

Publications
Articles Accepted for Publication

Lectures and Presentations
Adrian Nowitzke (invited)

Understanding the cause of primary brain tumours.

Dr Tammy Ellis and Professor Brandon Wainwright, Institute for Molecular Bioscience, The University of Queensland and the Princess Alexandra Hospital Tumour Bank.

Approximately fourteen hundred new cases of brain tumours are diagnosed annually in Australia. Despite poor outcomes associated with the development of most types of brain tumours, very little is known of the causes and molecular changes associated with the transition from benign to malignant. Consequently, there are very few markers that can be used to predict the outcomes before and after treatment, and a lack of new cellular targets against which one might attempt to develop new drugs or other treatments. The group's research is centred on understanding the primary causes of brain tumours. At the present time they are concentrating their efforts into researching gliomas and medulloblastomas using DNA microarray analysis, mouse models and mutation searching.

One of the main interests of the laboratory is the Patched/hedgehog signalling pathway. Recent clues into the causes of brain tumours have come from the analysis of the Patched/hedgehog gene family. These genes were first implicated in the origins of common cancer through the findings that they were commonly mutated in basal cell carcinoma of the skin. Subsequently, it was shown that the Patched gene was mutated in the common paediatric brain tumour medulloblastoma and a gene in the same genetic pathway, Gli, plays a role in the development of glioblastoma.

Diagnostic pathology has traditionally relied on macro- and microscopic histology and tumour morphology as the basis for classifying tumours. Current classification frameworks are unable to discriminate between tumours sharing similar histopathological features but varying in clinical course and response to treatment. Using a combination of the Tumour Tissue Bank at the Princess Alexandra Hospital and the gene chip expertise at the Institute for Molecular Bioscience they have begun to examine the set of genes which are switched on or off in gliomas. From this they will be able to cast the net more widely in the search of important genetic changes in the formation of gliomas. They will use this data to explore known pathways to further characterise molecules, which we already expect to play a role as yet undefined in the pathogenesis of the tumours and also a new phase of discovery to hunt for new pathways and important genes.

Their initial results indicate that it is possible to use frozen tumour samples to molecular profile GBMs. They have also provided some clues to the molecular changes involved in tumorigenesis and the changes occurring in the progression to more malignant phenotypes. These data have recently been confirmed in samples taken from a New Zealand cohort in association with Dr Janice Royds (University of Otago) and Professor Roger Reddel (Children’s Medical Research Institute, Sydney). To further determine the molecular changes in gliomas they will profile approximately 100 tumours of different histological classifications over the next two years. The outputs they will obtain through the genetic profiling of gliomas include gene discovery, developing better tools for the diagnosis of tumours and increased prognosis.
The Nursing Practice Development Unit is the new name for the Nursing Education and Research Unit. The aim is to develop nursing practice through the implementation of existing evidence (evidence based practice) or by initiating and participating in research projects to create high quality evidence related to nursing practice. In 2004 the Unit was reviewed as part of the Magnet Hospital Recognition process and received four years accreditation, the first Nursing Practice Development Unit in the Southern Hemisphere to do so. The Unit also coordinates a Visiting Scholar Program and has seven visiting scholars working with nurses to undertake clinical research.

**Current Research Activities**

- Evaluation of students' perception of the psycho-social clinical learning environment. (Henderson A, Twentyman A, Heel A & Reid B)
- The Change to One Queensland Hospital During the Application for "Magnet" Recognition. (Holzhauser K)
- Enhancing the health, wellbeing, job satisfaction and retention of hospital based registered and enrolled nurses working shift work. (Pisarski A, Gallois C, Watson B, Bohle P, Winch S)

**Financial Support**

**Grants**
- $4,983, Queensland Nursing Council. An exploratory pilot study of nursing practices that support patients' rights through dignified care. Rossi R, Van Eps M & Henderson A
- $3,053, Queensland Nursing Council (QNC) One Year Beginners Grant. The effectiveness of massage with aromatherapy in relieving stress on Emergency Department staff. Davis C, Finucane J, Cooke M, Mason D, Ritchie J & Holzhauser K.

**Other Support**

- ARC Linkage Grant. Developing evidence-based workforce models for nursing services in acute care hospitals. (Chaboyer W)
- $5,000, Griffith University. The effectiveness of music therapy on pre-operative anxiety in the day surgery environment. (Cooke M)
- ARC Linkage Grant. Enhancing the health, wellbeing, job satisfaction and retention of hospital based registered and enrolled nurses working shift work. (Pisarski A)
Publications

Journal Articles


Lectures and Presentations

Cooke M, Davis C, Finucane J, Ritchie J, Mason D & Holzhauser K The effectiveness of massage, aromatherapy and music on stress and anxiety levels of emergency nurses, Research Centre for Clinical Practice Innovation, October 6, 2004.


Public Service Relevant to Research

Dr Sarah Winch
Vice President of Centaur Memorial Fund for Nurses and Coordinator of the Inaugural Centaur Nursing Research Symposium (October 2004), "Getting Started with Nursing Research" with Professor Philip Darbyshire.

Dr Amanda Henderson
Journal Reviewer for Journal of Clinical Nursing Collegian
Journal Reviewer for Journal of Clinical Nursing Collegian
Journal Reviewer for Collegian

Kerri Holzhauser
Editorial Board and Assistant Editor (Qld) for Australian Emergency Nursing Journal.
Member, Princess Alexandra Hospital Human Research Ethics Committee.
Nutrition and Dietetic Services

The Department has over fourteen full time equivalent dietitians who provide nutrition services to all inpatients and to outpatients referred through specialised clinics or requiring home enteral nutrition. Malnutrition screening and assessment of all inpatients is a key feature of the clinical role of the staff. The Department provides nutrition support in enteral and parenteral nutrition, a range of nutrition supplements texture and fluid modifications through food services and counselling on all aspects of nutrition care. The service also includes an outreach program to Charleville Health Service District, supported by videoconferencing.

The research focuses on the application of clinical nutrition in the practical care of patients. This includes nutrition support in cancer, liver disease, pressure ulcers, development and implementation of validated nutrition tools and assessment of nutrition requirements. Staff teach nutrition and dietetic students from the Queensland University of Technology and Griffith University through lectures and supervised placements in clinical nutrition and food service. Currently there are three postgraduate students on staff.

Current Research Activities

Clinical Trials

Development and implementation of validated dehydration screening tool: This ongoing study of dehydration in older people in acute care aims to develop a valid screening tool. (A Vivanti, S Ash, M Roberts, H Edwards, D Battistutta)

Malnutrition and Pressure ulcer: Ongoing assessment of malnutrition and incidence with pressure ulcer. (M Banks, S Ash, A Vivanti, D Cruickshank, K Atkinson, J Hill, T Logan)

Screening for malnutrition in Australian Hospitals and residential aged care facilities: The study aims to establish the association between malnutrition and pressure ulcers, the economic consequences of malnutrition, and the extent of malnutrition screening implementation in Australian hospitals and residential aged care facilities. Data on barriers and strategies for screening implementation will be investigated. (M Banks, C Patterson, J Bauer, D Gaskill)

Quality of life, cost effectiveness, and functional speech and swallowing outcomes, following differential management of laryngeal cancer: Two modalities for initial treatment of glottic cancer will be compared. The study will compare outcomes including nutrition in addition to voice quality, quality of life, cost and clinical outcome. Nutritional assessments are completed periodically up till 2 years post treatment with patients randomly treated with either a course of radiotherapy or overnight-stay laser therapy. (Professor WB Coman, S Coman, T Cooney, B Panizza, C Perry, R Bova, D Thomas, B Hickey, L Cahill, K Hancock, S Coutice, K Dutkowski, L Galvin)

Developing and Evaluating Evidence-based Guidelines for Nutritional Support in the Intensive Care Unit: Participation in the multi centre randomised control trial with 26 New Zealand and Australian hospitals associated with the Australian New Zealand Intensive Care society (ANZICS). The study is to develop evidence based guidelines for feeding...
Financial Support

$15,000 per annum, LIVACT study. (Darrell Crawford)
$8,000, QuP (quality improvement project). Comparison in the delivery methods of the wt loss clinic for chronic liver disease. Emma Osland
$4,000 per annum, NHMRC/Pfizer. Landmark II. (Nicky Isbel)
$10 000, Wesley Research Institute. MRI Liver fat analysis. (Elizabeth Powell)

Publications

Published Abstracts

Lectures and Presentations
Merrilyn Banks
Workshop: Northern Rivers (NSW) Dietitians Nutrition screening & assessment (February)
Nutrition and Critical care lectures. - Griffith Uni student dietitians (May) and QUT student dietitians(October)
Dietetic Management lectures - QUT student dietitians (June)
Pressure ulcers and nutrition support – Does it make a difference? Princess Alexandra Hospital Week 2004.

Ingrid Hickman

Post Graduate Students
Winsome Abbott, PhD
Merrilyn Banks, D.HlthSc
Angela Vivanti, D.HlthSc, In Progress
Wendy Davidson, M Appl Sc, Completed & conferred
Ingrid Hickman, PhD, Completed & conferred
Maria Reeves, PhD, Completed & conferred

Awards
QIMR laboratory attachment award ($500): Awarded as part of the Royal Brisbane and Women’s Hospital Health Care Symposium October 19-22, 2004 for the study on Malnutrition and Pressure Ulcers in Queensland Hospitals. (M Banks, D Cruickshank, S Ash, K Atkinson, J Hill, T Logan, A Vivanti)

Public Service Relevant to Research
Angela Vivanti
Princess Alexandra Hospital Allied Health Research Committee
On Referee Register Australian Journal of Nutrition and Dietetics

Winsome Abbott
Journal Reviewer, “Nutrition”
In 2004, research activity in the Occupational Therapy Department was concentrated in the areas of catastrophic injury rehabilitation incorporating acquired brain injury and spinal cord injury research, aged care assessment and management, and hand and upper limb rehabilitation.

The Occupational Therapy team aims to improve or maintain performance in activities of daily living that may be affected by injury, illness or treatment procedures. Through developing research strength in the above areas, Princess Alexandra Hospital Health Service District Occupational therapists are a major contributor to the Occupational Therapy clinical knowledge base, creating a strong research profile nationally and internationally and enhancing evidenced based clinical decision making locally.

Particular highlights in 2004 included the award of an National Health and Medical Research Project Grant for research on prospective memory rehabilitation in collaboration with Griffith University.

Current Research Activities

Clinical Trials


Clinical trial of stretching after traumatic brain injury.

Other Research
Catastrophic Injury Rehabilitation
A research intervention to enhance the well-being and psychosocial outcomes of patients based on ICF “environment” framework.

Comparison of the Sydney Psychosocial Reintegration Questionnaire and the Community Integration Questionnaire psychometric properties.

Objective and behavioural assessment of the emergence from post-traumatic amnesia.

A study of impaired self-awareness and employment outcome following acquired brain injury.

The relationship between compensation status, symptom endorsement, readiness to change and strategy behaviour for individuals with traumatic brain injury.

Using occupation to facilitate self-awareness after acquired brain injury.

Self-awareness and emotional distress in adults with traumatic brain injury during the transition from hospital to home.


A metacognitive intervention to improve employment outcome for individuals with long-term unemployment following acquired brain injury. Test-retest reliability of the Comprehensive Assessment of Prospective Memory (CAPM) with a normative sample.
Prospective memory of people with traumatic brain injury: an analysis of ways of remembering.

Goal setting by individuals with acquired brain injury.

Executive functioning following traumatic brain injury.

Perceived causes of change in function and quality of life for people with long duration spinal cord injury.

A survey of computer literacy of people with spinal cord injury.

**Aged Care Assessment and Management**

The validity of cognitive assessments in an aging rehabilitation population.

Using the Assessment of Living Skills and Resources (ALSAR) to monitor rehabilitation outcomes with an older population.

An investigation of clients' experiences of an upper limb treatment group.

The readability and comprehensibility of occupational therapy written materials for elderly people.

Evaluating best practice written education materials for older people.

Reliability and validity of the OT-APST.

Review of visual perceptual functioning of people following traumatic brain injury using the OT-APST.

**Hand and Upper Limb Rehabilitation**

Measurement of joint stiffness in the hand: a preliminary investigation of the reliability and validity of torque angle curves.

Predictors of outcome with mobilising splinting.

Does splinting of the hand improve the hand function of people with C6 and C7 tetraplegia?

Wearing of splints post-discharge: factors contributing to sustainability of use following brain injury.

**Emerging Research Areas**

Outcomes from an outpatient cardiac rehabilitation program.

Determining driving outcome in traumatic brain injury survivors: Predictors of driving success.

**Financial Support**

$25,000, Princess Alexandra Hospital Research Foundation, A research intervention to enhance the well-being and psychosocial outcomes of patients based on ICF “environment” framework. P Kuipers (CONROD).


$5,000, School of Health and Rehabilitation Sciences MAIC Grant, The relationship between compensation status, symptom endorsement, readiness to change and strategy behaviour for individuals with traumatic brain injury: T. Ownsworth (UQ).

$10,000, CONROD, A metacognitive intervention to improve employment outcome for individuals with long-term unemployment following acquired brain injury. T. Ownsworth (UQ).

$78,575, NHMRC Project grant, Evaluation of rehabilitation strategies for prospective memory in individuals with TBI, D. Shum (GU).

**Publications**

**Journal Articles**


**Published Abstracts**


**Articles Accepted for Publication**


Griffin J, McKenna K, Tooth, L. Discrepancy between older clients’ ability to read and comprehend and the readability of educational materials used by occupational therapists. American Journal of Occupational Therapy.

Ownsworth T, Fleming J. The relative importance of metacognitive skills, emotional status and executive functioning in psychosocial adjustment following acquired brain injury. Journal of Head Trauma Rehabilitation.


Nicole Weir and Jenny Fleming each presented papers at the Australian Brain Impairment Conference (see abstracts above).

Nicole Weir, Jenny Fleming, Janelle Griffin, Lara Moes and Amanda Purcell each presented a paper at the State Occupational Therapy Conference at the Sunshine Coast 2004.

Jenny Fleming – Rehabilitation of prospective memory impairment.

Janelle Griffin – How readable is written occupational therapy material?

Amanda Purcell – Surfing the tides of change.

Public Service Relevant to Research

Mary Whitehead
Inaugural Members of the Health Advisory Unit EBP Networks Evaluation Committee (Queensland Health)

Jenny Fleming
Reviewer for the OT Australia-Qld Clinical Research Bursary and the Queensland Health Allied Health Research Scholarships in 2004.

Lara Moes
Inaugural Members of the Health Advisory Unit EBP Networks Evaluation Committee (Queensland Health)
2004 was a challenging year involving a revision of the Division of Ophthalmology. Research continued to be performed despite these difficulties.

It has been possible to establish screening methods for the examination of organ cultured corneas and corneal cells in tissue culture. Organ culture of corneas in media without added serum has given promising results as determined by endothelial examination. Methods have been used to separate subpopulations of corneal cells to examine the importance of cell selection upon tissue culture.

Current Research Activities
The primary areas of study are:

- The introduction of organ culture for the long term storage of corneas in Australia that meets current safety and regulatory requirements
- The development of new methods organ culture
- The growth of cells of the cornea to make a living artificial cornea.

There are also other studies such as:

- The reasons for next of kin declining consent for eye tissue donation for transplantation; comparison between Australia and England
- Examination of Eye Bank corneas at time of transplantation for comparison with post-operative survival.

Other Research
Collection of specular microscope images of corneal endothelium deemed unsuitable for transplantation for future evaluation.

Financial Support
Lions Medical Research
Queensland Eye Bank fund one staff member and minor operating consumables

Grants
$45,000 per annum for three years, Lions Medical Research Foundation

Publications
Journal Articles

Public Service Relevant to Research
Membership of the Australians Donate Management Board. The national body for increasing the donation of organs and tissue for transplantation may be seen in this role. This is because the work involves research of the impediments to organ and tissue donation.
Leadership in research and implementation of practice change to support the National Medication Safety Agenda has been a hallmark of activities in 2004.

The Princess Alexandra Hospital Pharmacy Department is a national leader in the implementation of clinical services, innovative methods of drug distribution, and research and implementation of “Quality Use of Medicines” activities. Quality Use of Medications is described in the National Medicines policy as a partnership between government, industry, health workers and patients to use medications judiciously, appropriately, safely and efficaciously.

The Pharmacy department provides services to all specialties within the hospital including:
- Renal/Liver Transplants
- Cardiac and thoracic medicine and surgery
- Oncology and Haematology
- Colorectal surgery and gastroenterology
- Spinal Injuries
- Critical Care
- Elderly Care
- Respiratory Medicine
- General Medicine

The Clinical Trials Pharmacist, Oncology Unit and Sterile Production Centre perform a support role for clinical trials taking place in the hospital. Activities include preparation for a trial such as training in manufacture, record keeping and randomisation procedures particular to individual trials. During the trial, medication storage, randomisation, manufacture, dispensing and medication record keeping can be provided. Pharmacy staff members are involved in teaching undergraduate and postgraduate pharmacy students as well providing in house education to staff and patients.

**Current Research Activities**

**Clinical Trials**
Dispensing, production and record keeping support for Clinical Trials during 2004 involved about 120 trials of which about 35 had aseptic and safe handling production provided by the Sterile Production Centre.

**Other Research**
Fluid and electrolyte safety project. Funded by the Australian Council for Quality and Safety

CAPTION (Community Acquired Pneumonia Towards Improved Outcomes Nationally) in Collaboration with Pharmacy School UQ and Queensland Health Drug Advisory Committee.

Staff

Gwynneth Petrie, Director
Andrew Jagels/Christine Mclean, Assistant Director
Trudy McGovern, Assistant Director
Robyn Hurley, Clinical Trials Pharmacist
Susan Cobcroft/Julia Bates, Senior Pharmacist Sterile Production Centre
Susan Cobcroft, Robyn Hurley, Julia Bates, Simon Dickens - Oncology / Haematology Unit (OHU)
Judith Coombes, Senior Pharmacist Education, Conjoint Lecturer School of Pharmacy, UQ
Jo Sturtevant, Clinical Pharmacist, Renal and Senior Pharmacist Drug Utilisation Evaluation (DUE)
Cathy Lynch, Specialist Clinical Pharmacist GARI
Jennie McKay, Senior Clinical Pharmacist. National Collaborative Medication Safety Project Co-ordinator
Drug Use Evaluation Projects
- Parecoxib audit.
- Adverse Drug Reaction Recording.
- Antibiotic restrictions audit.
- Tramadol use.
- Medication administration audit.

Financial Support
$15,000 Australian Council Quality & Safety. National Medication Safety Breakthrough Collaborative. (Jennie McKay)

Publications
Journal

Posters

Lectures and Presentations

Trudy McGovern

Jennie McKay

A Coles
- Looking beyond the patient who presents with hypoglycaemia. Proceedings of the SHPA State Conference 2004

Jo Sturtevant
- 2004 Malaysian Hospital Pharmacists Conference Plenary session “The Pharmacist and Renal Disease”

S Mould
- Advances in Depression. Post Graduate Diploma in Clinical Pharmacy, Pharmacy School UQ

Janet Weir
- Atrial Fibrillation & Heart Failure. Post Graduate Diploma in Clinical Pharmacy, Pharmacy School UQ

Jennie McKay
- Hepatic Failure. Post Graduate Diploma in Clinical Pharmacy, Pharmacy School UQ

Post Graduate Students

Sean Unwin,
- Graduate Diploma in Hospital Pharmacy. Completed in 2004

Awards
- Best Poster Award, State Branch Conference, Society of Hospital Pharmacists of Australia, Toowoomba July 2004

Public Service Relevant to Research
Pharmacy Department provided a member to the Princess Alexandra Hospital Research Ethics Committee

Pharmacy Department provided a member to the University Of Queensland, School of Pharmacy Ethics Committee

Gwyneth Petrie
- Completed reviews for articles published in The Journal of Pharmacy Member of review panel for SHPA clinical pharmacy awards.
- Member, Queensland Health Hospital Pharmacy Advisory Committee (Objectives include: create an environment that supports pharmacists active engagement in teaching and research leading to publication and recognition with a view to supporting evidence based practice)

Christine Maclean
- Represents Queensland on Federal Council, Society of Hospital Pharmacists of Australia

Centres for Health Research - Annual Review 2004
In 2004, the Princess Alexandra Hospital Physiotherapy Department made a strong contribution to research in a wide variety of clinical areas, with neurological physiotherapy research standing out as a key departmental strength. Specific areas of neurological physiotherapy research have included exercise prescription for lower limb retraining in patients following stroke, assessment of physical function amongst patients following stroke and brain injury, use of botulinum toxin for management of calf spasticity, and assessment of sensory function amongst patients with acute tetraplegia. Several presentations were also made by department staff across areas of oncology, emergency medicine, orthopaedics, and exercise prescription.

Staff of the Princess Alexandra Hospital Physiotherapy Department, also make a strong contribution to research through public service relevant to research, with many holding key positions in State and National Professional bodies. Terry Haines (conjoint University of Queensland and Princess Alexandra Hospital research fellow) joined the department at the end of the year, bringing with him a background of falls prevention research in the hospital setting. He replaced Dr. Sandra Brauer who has maintained strong research links with the Princess Alexandra Hospital Physiotherapy Department while taking up a senior lecturer position with the University of Queensland Physiotherapy Division.

Current Research Activities

Clinical Trials
The role of botulinum toxin A in the management of calf spasticity and hypertonus. (M Tadros, R Hazelton, D Hayes and S Brauer) “HP184B/2002 – Aventis drug trial”. Josh Simmons, physiotherapist, attended training sessions in Sydney in July and September.

Other Research
Acute brain injury physiotherapy assessment. (L Passier, M Nascimento, J Gesch, T Haines)
Outcome measures, patient satisfaction survey. (Outpatient department work group, P Wood)
Education for chronic lower back pain – Evidence based practice review of literature. (Outpatient department work group, F Harbison)
Manual hyperinflation for ventilated patients. (M Flori)ntino)
Healthy ageing and fall related injury. (N Peel N) (subject identification by orthopaedics department)
A multicentre trial of the use of the Motor Assessment Scale (MAS) to predict discharge destination and length of stay in stroke rehabilitation. (Site representative - Greg Morrison)
Volume and intensity of lower limb retraining in stroke rehabilitation. (S Kuys)
Sensory thresholds in acute tetraplegia – a prospective study - researcher Susan Salisbury (not now a PAH employee but was at the commencement of this research.) Assistance given with this research by finding suitable candidates and liaising with researchers regarding suitable assessment times.

Staff
Kathy Grudzinskas, Director
Cherie Hearn, Assistant Director
Suzanne Kuys, Senior GARU
Greg Morrison, Senior BIRU
Maryann Schubert, Senior Medical/Surgical
Pat Wood, Senior Outpatients
Beth Baird, Senior Spinal Injuries Unit
Brett Baxter, Senior Orthopaedics

Research Staff
Mr Terry Haines,
(Physiotherapist Princess Alexandra Hospital / University of Queensland)
Dr Sandy Brauer,
(Physiotherapist Princess Alexandra Hospital / University of Queensland)
Tammie Qual, Research Assistant
Publications

Journal Articles


Articles Accepted for Publication


Post Graduate Students

Suzanne Kuys, PhD, Commenced in 2004

Lectures and Presentations


Suzanne Kuys. Lecturer School of Physiotherapy and Exercise Science - Griffith University 2004.


Haines T, Hill K, Bennell K, Osborne R. Advancing the concepts of sensitivity and specificity to account for recurrent events and other features of the clinical research setting. Poster presentation. Inaugural Australian Falls Prevention Conference. November 21-23, Sydney Australia.


Invited Lectures


Nadine Simmons. Orthopaedic advanced workshop- Shoulder surgery.

Louise Matthews. Orthopaedic basic workshop- shoulder surgery and total joint replacement.

Greg Morrison. Fitness testing and training in neurological patients. School of physiotherapy and exercise science (GU) at Gold Coast March 2004 and Clinical masters course for UQ at PAH August 2004.


Awards

Terry Haines

Best student poster presentation for poster “Effectiveness of an additional exercise program for the prevention of falls in the subacute hospital setting – randomised controlled trial subgroup analysis”. Inaugural Australian Falls Prevention Conference, Manly November 2004

Public Service Relevant To Research

Leanne Pasier: Committee member Australian Physiotherapy Association, National Australian Physiotherapy Association Neurology Group

Nadine Simmons: Committee member Australian Physiotherapy Association: Manipulative Physiotherapists Association of Queensland

Esther Dobson: Chair of the Neurology Special Interest Group of the Australian Physiotherapy Association (Queensland branch)

Carleen Stone: Committee member of the Neurology Special Interest Group of the Australian Physiotherapy Association (Queensland branch)

Janelle Gesch: Committee member of the Neurology Special Interest Group of the Australian Physiotherapy Association (Queensland branch)

Maryann Schubert: Committee member of the Neurology Special Interest Group of the Australian Physiotherapy Association (Queensland branch) and state representative on the National Neurology Group Australian Physiotherapy Association committee

Suzanne Kuys: Chair; Allied Health EBP networks evaluation committee, Stroke Guidelines Advisory Committee Commonwealth Dept of Health and Aging), APA Professional Standards Panel (Queensland), Australian Physiotherapy Association National Workforce Planning Committee, Neuro special interest group committee Australian Physiotherapy Association, Queensland Rehabilitation Physiotherapist Network member, Committee member of the Neurology Special Interest Group of the Australian Physiotherapy Association (Queensland branch)

Greg Morrison: Queensland Rehabilitation Physiotherapist Network member, Australian Physiotherapy Association Neurological Physiotherapy Special Interest Group

Terry Haines: Queensland Rehabilitation Physiotherapist Network member, Princess Alexandra Hospital Allied Health Research Committee member

Josh Simmons: “Falls Management and Prevention Programme” in conjunction with BISCHI (Mater Hospital)
In 2004, the members of the Plastic and Reconstructive Surgery Unit had five papers published and four papers accepted for publication. All papers are peer reviewed and from international journals on cancer research and reconstructive surgery. One paper was featured by the editor as a front cover issue and an editorial review in one of the top five cancer journals. This paper is currently the most indexed paper in Pubmed literature search for tumour makers. First author, David Chin, was awarded best research work in the ANZHS (Australian New Zealand Head & Neck Society) 2004 and from the Garnett-Passe and Rodney Williams Memorial Foundation research meeting in 2004. The work of David Chin has been conducted under the auspices of Professor William Coman at Princess Alexandra Hospital and Professor Peter Parsons from Queensland Institute of Medical Research. His work has also been selected as a showcase for the Australian Research Council for July 2004 and media coverage in November 2004 from the ABC news and The Australian newspaper.

Fundings are primarily from the Garnett-Passe and Rodney Williams Memorial Foundation and a National Health and Medical Research Council project grant from the Melanoma Genomics Group, Queensland Institute of Medical Research.

**Current Research Activities**
Continuing and re-validating current research work on invasion and metastatic marker in epithelial lining cancers.

**Publications**

**Journal Articles**


Articles Accepted for Publication
Chin D, Boyle GM, Theile DR, Parsons PG, Coman WB. Laryngoscope: Novel prognostic markers in HNSCC.

Newspaper/Media

Lectures and Presentations
Novel preoperative prognostic markers for poor prognosis in Head and Neck Cancer. 6th Annual Meeting of the Australian and New Zealand Head and Neck Society, Adelaide, RACS. Winner best research paper presented. D. Chin, Glen Boyle, D. Theile, PG. Parsons, WB Coman
Molecular introduction to Head and Neck Cancer (HNSCC) carcinogenesis. 6th Annual Meeting of the Australian and New Zealand Head and Neck Society, Adelaide, RACS. Winner best research paper presented. D. Chin, Glen Boyle, D. Theile, PG Parsons, WB Coman

Awards
Dr David Chin
Best research paper in Garnett-Passe and Rodney Williams Memorial Foundation Scientific Meeting Noosa. Novel markers in Head and Neck Cancer.

Public Service Relevant to Research
Podiatry is a member of the larger Prosthetic/Orthotics and Podiatry Services Department at the Princess Alexandra Hospital. The Podiatry service is a tertiary referral centre for assessment and management of high risk foot pathologies within a multi-disciplinary setting. Podiatry consists of two staff members, one full-time and one part-time, and provides clinical service delivery on an inpatient and outpatient basis. A large facet of the treatment is focussed on care of the diabetic foot, and is carried out in conjunction with the Diabetic and Endocrine Unit and the Prosthetics and Orthotics Department. The Podiatry Service has also played a role in undergraduate teaching at the Queensland University of Technology and has provided clinical placements for final year podiatry students.

The Podiatry Service is in it’s infancy with regards to research. It has however produced one journal article in 2004 and has begun collaboration with the Queensland University of Technology Podiatry School to expand the research potential. In addition, evidence based practice research will continue to be a key area of focus.

**Publications**

**Journal Articles**

Psychology in Division of Clinical Support Service

The District had thirty-one psychologists occupying twenty-two full-time equivalent positions during 2004. Most of the psychologists are integrated into other Divisions and Departments and their research activities will be included in their respective reports, particularly, the prolific output of those in the Alcohol and Drug Assessment Unit. This report will be limited to the four psychologists occupying three full-time equivalent positions who are in the Division of Clinical Support Service. The staff complement was increased by one temporary full-time equivalent position in the second half of the year.

The most outstanding achievements for 2004 include 1) the beginning of dissemination of research by the clinical neuropsychologists of research commenced before expansion of research areas by the clinical neuropsychologists; 2) the Princess Alexandra Hospital becoming the premium site in Queensland for externship placements in the training of clinical neuropsychologists; and 3) The commencement of two successful 2003 ARC Linkage Grant applications in April and November.

Current Research Activities

Decision-Specific Cognitive Capacity in Brain Injury Patient.
Cognitive capacity for making decisions relating to assigning enduring power of attorney and deciding where one lives upon discharge from hospital.

Assessing financial decision making capacity.
Prospective memory & prefrontal cortex.
Development of a computerized choice reaction time task for assessing attentional and memory processes in clinical populations.
Depression in people with Diabetes.
Collaborative Recovery in people with serious and recurring mental illness.
Development of Risk Assessment protocol in home dialysis patients.

Staff

Annette Broome, Acting Director of Psychology.
Clifford Leong, Director of Psychology, absent on SARAS leave.
Dale Fogarty, Clinical Neuropsychologist.
Dr Joanne Oram, Clinical Neuropsychologist.
Helen Tinson, Clinical Neuropsychologist.
Dr Pamela Seaton, Locum Clinical Neuropsychologist.
Jane Nearhos, Clinical Psychologist (from July 2004)
Andrea Smith, Clinical Psychologist (from July 2004)
Marla McHale, ARC Scholar (from March 2004)
Kerryn Neulinger, ARC Scholar (from November 2004)

(All positions are clinical. There are no dedicated research staff)

Visiting Psychologists

Associate Professor David Shum, Griffith University
Associate Professor Justin Kenardy, University of Queensland
Dr Ken McFarland, University of Queensland
**Publications**

**Published Abstracts**


**Book Chapters**


**Lectures and Presentations**

**Clifford Leong**

Are there opportunities for clinical psychologists in the recovery model?, Invited Address, 2004 Australian Psychological Society College of Clinical Psychologists Conference, Adelaide.

Model for Support Workers in Psychosocial Rehabilitation, 2004 Vicserf Conference, Melbourne.

Listening to people with mental illness, lecture series to 2004 Queensland Lifeline Counsellor Training Course.

What are the facilitators and barriers to consumer participation, Invited address, 2004 Community Resource Unit Forum, Brisbane.

**Dale Fogarty**

Neuroleptic Malignant Syndrome, 2004 ASSBI Conference, Brisbane.

Quantifying Capacity: Measuring patient’s ability to decide, 2004 Princess Alexandra Hospital Week.

**Joanne Oram**


Decision & de-law: the conundrums surrounding decision-making capacity in public hospital practice, 2004 PA Week Three lectures series on Neuropsychology to Masters in Psychology Course, Griffith University.

**Heleln Tinson**

Decision-Specific Cognitive Capacity in Adult Brain Injury Patients, 2004 ASSBI Conference, Brisbane.

**Associate Professor David Shum**

Development and validation of a computerized visual memory and learning test, 2004 ASSBI Conference, Brisbane.

**Post Graduate Students**

Joanne Waller, Honours dissertation, Completed in 2004

Pamela Seaton, D Psychology, Completed in 2004

Brendan Mooney, PhD, Commenced in 2004

Nicole Predegast, D Psychology, Commenced in 2004

Katlyn Kerr, D Psychology, Commenced in 2004

Sally Duncan, D Psychology

Vivian Ormiston, PhD

Reynah McGrane, M Psychology

Stephan Murray, PhD

**Public Service Relevant to Research**

**Clifford Leong**

Reference Group Member, AIMhi: Collaborative Recovery of people with serious and recurring mental illness, NH&MRC Research Project.

Research Consultant to Richmond Fellowship Queensland and Association of Relatives and Friends of the Mentally Ill (ARAFMI).
Queensland Clinical Trials Centre - Biostatistics

The highlight for 2004 for the Queensland Clinical Trials Centre was the establishment of the Australasian Kidney Trials Network. Working with researchers from the Department of Renal Medicine and others in the Brisbane area, the group was successful in becoming the endorsed provider of the infrastructure for this exciting development. Kidney Health Australia and the Australia & New Zealand Society of Nephrology recognised the need for a clinical trials network to conduct multicentre clinical trials into all aspects of kidney disease. Kidney Health Australia has given a grant of $50,000 per annum for three years to establish the network. During 2004, the Centre has been active in establishing the governance arrangements for the network, setting up policy for conduct of trials, determining research priorities, and applying for funding from the National Health and Medical Research Council (enabling grant round) and industry. The Centre is looking forward to starting the first randomised controlled trials in 2005.

The Centre has continued to work with researchers in many departments and institutions associated with the Princess Alexandra Hospital in developing its research. The main emphasis has been on the controlled trials undertaken by the Centre of Clinical Research Excellence in cardiovascular and metabolic diseases, and the Princess Alexandra Cancer Collaborative Group.

Current Research Activities

Clinical Trials

Randomised study of radiotherapy or chemoradiotherapy to palliate symptoms of advanced oesophageal cancer. (With J Harvey - Radiation Oncology, PAH and M Penniment - Royal Adelaide Hospital)

Multi-centre study identifying impacts of an assessment and care planning protocol for frail elderly patients in acute care. (With L Gray - Academic Unit in Geriatric Medicine, PAH & UQ, B Nair - John Hunter Hospital, and co-investigators from the Mater Hospital and Townsville Hospital.)

Timing of androgen deprivation in relapsed or non-curable prostate cancer patients. (With G Duchesne, H Gurney, J Denham, and A Stapleton - Trans-Tasman Radiation Oncology Group)

Optimising preterm infant outcomes: A RCT to evaluate two screening and surveillance methods. (With P Colditz, M Pritchard – Perinatal Research Centre RBWH, D Tudehope, C Jackson – Mater Hospitals)


RCT of physiotherapy and corticosteroid injections for lateral epicondylalgia. (With B Vincenzino, M Yelland – UQ)

Cardiovascular exercise/diet intervention program for diabetic patients. (With CCRE in Cardiovascular and Metabolic Disease)

The contribution of insulin resistance to cardiac dysfunction in obesity. (With CCRE in Cardiovascular and Metabolic Disease)

Randomised trial of metformin, exercise and diet in patients with obesity. (With CCRE in Cardiovascular and Metabolic Disease)
The FOREMOST trial – fetal pulse oximetry multicentre randomised controlled trial. (With Perinatal Research Centre, RBWH and University of Queensland)

Other Research
Cost-effectiveness study for the ADVANCE clinical trial. (With P Glasziou – Oxford University)

The prevalence of functional and psychosocial problems in the older hospital population. (With L Gray, I Scott, A Wilson, GI Carpenter)

Statistical consulting for PAH researchers in various fields, including oncology, haematology, hepatology, dietetics, geriatrics, nursing, diabetes & endocrinology, pharmacy, cardiology.

Financial Support
Grants
$50,000, Kidney Health Australia, Australasian Kidney Trials Network
$400,000, NHMRC, Centre for Clinical Research Excellence
QCF, PA Cancer Collaborative Group
NHMRC, Oesophageal cancer trial
$65,000, NHMRC, Bladder cancer trial

Publications
Journal Articles

Post Graduate Students
Christine East,
PhD, Commenced in 2004
Valerie Smith-Orr,
MPhil, Commenced in 2004
Margo Pritchard, PhD
Leanne Bisset, PhD
Michael Keogh, MPH

Research - Key to Health
The Queensland Liver Transplant Services is based at Princess Alexandra Hospital and Royal Children’s Hospital where adult and paediatric patients are transplanted respectively.

The Service continues to attract overseas fellows to supplement their surgical training in the unit. In collaboration with the School of Pharmacy at the University of Queensland the group continue to maintain their interest in new immunosuppressive agents.

**Current Research Activities**

A study to investigate and compare the pharmacokinetics of tacrolimus (FK506) in patients undergoing primary liver transplantation treated with modified release tacrolimus, FKS06E (MR4) or Prograf 

A long term follow up study to evaluate the safety and efficacy in transplant recipients treated with modified release tacrolimus, FKS06E (MR4), based immunosuppression regimen. (Chief Investigator: Associate Professor S.V.Lynch)

A Randomised, Open-label, Comparative Evaluation of Conversion from Calcineurin Inhibitors to Sirolimus, versus Continued Use of Calcineurin Inhibitors in Liver Allograft Recipients on Maintenance Therapy. (Chief Investigator: Professor Jonathan Fawcett)

**Clinical Trials**

Multi centre study company once per day dosing of Neoral with twice per day dosing and dose reduction in improving renal function, hypertension and lipid profile. Sponsored by Novartis. (Chief Investigator: Associate Professor S Lynch)

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**Staff**

Associate Professor Stephen Lynch
Professor Russell Strong
Professor Jonathan Fawcett
Dr Anthony Griffin
Dr Darryl Wall
Dr Shinn Yeung
Dr Julie Jonsson
Dr Paul Taylor
Dr Paul Salm
Glenda Balderson

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Centres for Health Research - Annual Review 2004
A study to investigate and compare the pharmacokinetics of tacrolimus (FK506) in patients undergoing primary liver transplantation treated with modified release tacrolimus, FK506E (MR4) or Prograf®, based immunosuppression regimen. (S. Lynch)

A long term follow up study to evaluate the safety and efficacy in transplant recipients treated with modified release tacrolimus, FK506E (MR4), based immunosuppression regimen. (S. Lynch)

A Randomized, Open-label, Comparative Evaluation of Conversion from Calcineurin Inhibitors to Sirolimus, versus Continued Use of Calcineurin Inhibitors in Liver Allograft Recipients on Maintenance Therapy. (J. Fawcett)

Publications

Journal Articles


Queensland Spinal Cord Injuries Service

The Spinal Injuries Unit, along with the Transitional Rehabilitation Program and the Spinal Outreach Team make up the Queensland Spinal Cord Injuries Service. Queensland Spinal Cord Injuries Service has developed a unique continuum for the acute care, rehabilitation and ongoing management of individuals with spinal cord injuries, representing a best practice model in this field. All three components of the Queensland Spinal Cord Injuries Service have active and expanding research programs.

This year the Queensland Spinal Cord Injuries Service presented the very successful Inaugural Queensland Spinal Cord Injuries Service Research Symposium on the 3rd December. The aims of the Symposium, which is planned to become a regular event, were to:

- Promote, advance and encourage research activity with Queensland Spinal Cord Injuries Service especially with staff less experienced in research.
- Ensure that staff of Queensland Spinal Cord Injuries Service and Princess Alexandra Hospital and Health Service District are informed and educated regarding current research activity within the Service.

Presentations at the Symposium covered a wide range of topics and were presented by a wide variety of disciplines and included epidemiology, pressure ulcer prevention, health outcomes for people with spinal cord injury, hand function following spinal cord injury, changes in speech in tetraplegia and education in sexual rehabilitation issues. Updates on several ongoing clinical trials were also presented.

Spinal Injuries Unit

The Spinal Injuries Unit continued to undertake a variety of research projects in 2004. These projects span a spectrum from spinal cord regenerative research, through acute management issues to areas of rehabilitation research.

The Phase 1 human trial investigating the safety and potential of olfactory ensheathing glial cells for regeneration of the injured spinal cord is continuing. The Open-label Extension phase of the Australia-wide multicentre clinical drug trial investigating the efficacy of a new agent for control of neuropathic pain following spinal cord injury is continuing. There continues to be a strong emphasis on psychosocial outcomes following spinal cord injury.

Staff

Dr Tim Geraghty,
Director Spinal Injuries Unit, Consultant in Rehabilitation Medicine

Dr William Davies,
VMO, Physician and Consultant in Rehabilitation Medicine

Dr Susan Urquhart,
Senior Medical Officer – Rehabilitation Medicine

Dr David Douglas,
Part-Time Staff Specialist, Consultant in Rehabilitation Medicine

Alison New,
Nurse Unit Manager

Tricia Fronek,
Senior Social Worker

Beth Baird,
Senior Physiotherapist

Glenda Price,
Senior Occupational Therapist

Research Assistants

Julie Cochrane,
Clinical Research Coordinator / Project Manager

Dr Pat Dorset,
Social Worker / Research Officer

Dr Cliff Fisher,
Medical Officer / Research

Helen Le Good,
Registered Nurse / Clinical Research Coordinator

Ellen Eugarde,
Registered Nurse / Clinical Research Coordinator
Current Research Activities

Clinical Trials


An open-label extension to evaluate the safety and efficacy of pregabalin for treatment of chronic central neuropathic pain after spinal cord injury. (Urquhart S, LeGood H, Quinn J, Fisher C, Douglas D, Geraghty T)

A phase II, double-blind, placebo controlled, multicentre study to assess the efficacy and safety of HP184 at 100, 200 and 400mg Doses administered orally once daily for twenty-four weeks in adult subjects with chronic spinal cord injury (CSCI). (Geraghty T, Douglas D, Maugham L, Simmons J, Eugarde E, and Le Good H)

Other Research
Longitudinal Tracking of Anxiety among People with Spinal Cord Injury who are Approaching Community Re-Entry. Kendall M, Brown D, Oliver J, Geraghty T. Collaboration with Austin and Repatriation Medical Centre, Spinal Injuries Unit, Melbourne.


SCI Sexuality Training – two year follow up study. (Kendall M, Booth S, Fronek P, Miller D, Geraghty T)

Financial Support
Grants
$75,000, Princess Alexandra Hospital Foundation. The regenerative potential of olfactory glial cells in human spinal cord injury – Phase 1 Trial. (Geraghty T, Mackay-Sim A)

$10,000, Princess Alexandra Hospital Foundation. Longitudinal Tracking of anxiety amongst people with spinal cord injury who are approaching community re-entry. A study of two rehabilitation units. (Kendall M, Geraghty T)

$19,500, Princess Alexandra Hospital Foundation. Spinal Cord Injury – How Do People Cope? A Ten Year Longitudinal Study. (Dorsett P)

Other Support
Pfizer (Pharmaceutical sponsorship). A 12-week randomized, double-blind, placebo-controlled, parallel-group multicentre study of Pregabalin for the treatment of chronic central neuropathic pain after spinal cord injury. (Geraghty T)

Pfizer (Pharmaceutical Sponsorship). An open-label extension to evaluate the safety and efficacy of Pregabalin for the treatment of Chronic central neuropathic pain after spinal cord injury. (Geraghty T)
Publications

Journal Articles


Articles Accepted for Publication


Lectures and Presentations

Paper Presentations


Poster Presentations


Lectures

Dorsett P. The psychosocial aspects of disability, for the Course: Physical Activity for People with Neuromusculoskeletal Impairments (Masters Level). University of Queensland, School of Human Movements, October 2004.


Post Graduate Students

Fronek, P, Doctor of Philosophy, Commenced in 2004

E Eugarde, Bachelor of Nursing Informatics, Completed 2004

M Locksley, Graduate Diploma Nursing (Midwifery), Commenced 2004

B Baird, Graduate Certificate in Health Management

R Jones, Masters in Rehabilitation Nursing

Public Service Relevant to Research

Dr Tim Geraghty
Scientific Program Committee, Australasian Faculty of Rehabilitation Medicine, 2003 –
External Grant Reviewer – Victorian Trauma Foundation, 2003 –
External Grant Reviewer – Motor Accident Authority of NSW.

Spinal Cord Injury and other Neurological Conditions Research and Grants Assessment Committee, NSW Health, 2003 –

Dr William Davies
External Grant Reviewer – Victorian Trauma Foundation, 2003 –

Tricia Fronek
Queensland Health’s Panel of External Expert Reviewers (PEERS) to assist Queensland Health Human Research Ethics Committees.
Spinal Outreach Team (SPOT)

The Spinal Outreach Team supports people with spinal cord injury, their families and service providers throughout Queensland. It is part of the unique continuum of care model of the Queensland Spinal Cord Injuries Service. The team provides consultancy and early intervention services and consists of physiotherapists, occupational therapists, social workers and a clinical nurse. The Team aims to enhance access to specialist spinal cord injury services for people living outside Brisbane and to assist in preventing human and financial costs of complications. The team achieves these aims through service provision, education, training, evaluation and research.

The core research objectives include:

- Understanding and addressing the consequences of long term spinal cord injury
- Reducing the incidence, severity and life impact of secondary complications experienced by people with spinal cord injury
- Gaining insight into the role played by significant others in the lives of people with spinal cord injury.

The major research achievement for 2004 has been the completion of the first year of data collection in the Long Term Outcomes in spinal cord injury study. This is a longitudinal study involving annual in depth telephone interviews with 270 participants with spinal cord injury. It is planned that data will be collected for five years.

Current Research Activities

Outcomes in long duration spinal cord injury: Documentation of multiple integrated trajectories of wellbeing and comparative analysis of outcome measures. (D Amsters, K Pershouse, P Kuipers (CONROD), M Kendall (TRP))

Validation of telephone application of the Clinical Outcomes Variables Scale. (D Amsters, K Pershouse, P Kuipers (CONROD), M Kendall (TRP), J Campbell (TRP)).

Exploring the efficacy of coping mechanisms employed by the partners of people with spinal cord injury. (D Amsters, G Carlson (DSQ), M Foster (GU)).

Evaluation of the effectiveness of spinal outreach team follow-up on the prevention of rehospitalisation for pressure areas. (R Cox, D Amsters, C Bayliss, L Maugham).
Financial Support
Grants
$60,000 held in trust, CONROD, Outcomes in long duration spinal cord injury: Documentation of multiple integrated trajectories of wellbeing and comparative analysis of outcome measures. (Delena Amsters)

Publications
Journal Articles
Articles Accepted for Publication

Lectures and Presentations

Public Service Relevant to Research
Delena Amsters
Reviewer, Disability and Rehabilitation
Member, Princess Alexandra Hospital Allied Health Research Committee
Transitional Rehabilitation Program

The Transitional Rehabilitation Program provides post-primary rehabilitation services for people with spinal cord injuries, who have undergone in-patient rehabilitation in the Queensland Spinal Injuries Unit. The program forms an integral part of the continuum of care for people with spinal cord injury in Queensland, as part of the Queensland Spinal Cord Injuries Service. Rehabilitation services are provided in the community in client’s homes or in the home-like setting of transitional rehabilitation program accommodation. The program is designed to relocate the final weeks of rehabilitation from the hospital setting to the community.

In 2004, a new collaborative project was commenced looking at outcome measurement in community-based rehabilitation and a follow-up study commenced evaluating the long term outcomes of the sexuality training provided across Queensland Spinal Cord Injuries Service.

Current Research Activities

Longitudinal tracking of anxiety among people with spinal cord injury who are approaching community re-entry. Aim: To examine anxiety, depression and PTSD outcomes across two rehabilitation settings with different service delivery models. (Investigators: Kendall, M., Geraghty, T., Brown, D. & Olver, J.)

Predicting community mobility outcome from hospital-based assessments: Is the COVS a useful predictor? Aim: To examine the factors that predict mobility outcome in the community using hospital-based measures such as the COVS. (Investigators: Campbell, J. & Kendall, M)

Social support following spinal cord injury: A qualitative examination of friendships. Aim: To develop a model describing the process of maintaining friendships following spinal cord injury and identify interventions appropriate to enhance and develop natural friendship supports following spinal cord injury. (Investigators: Kendall M)

Long term effectiveness of training on staff knowledge, comfort and attitudes towards sexuality in a spinal cord injury rehabilitation unit: A follow-up study. Aim: To determine whether improvements in staff knowledge, comfort and attitudes demonstrated immediately following sexuality training are maintained at two year follow-up. (Investigators: Fronek P, Booth S, Kendall M, Miller D, Geraghty T)

Outcome measurement in spinal cord injury rehabilitation: A review of current measures in the context of the International Classification of Functioning, Disability and Health (ICF). Aim: To conduct a literature review and national survey investigating current outcome measures for spinal cord injury rehabilitation using the ICF as a framework. (Investigators: Speare R, Kendall M, Swanson C (CONROD))
Publications

*Journal Articles*


*Articles Accepted for Publication*


*Lectures and Presentations*


*Post Graduate Students*
Melissa Kendall,
Doctor of Philosophy (rehabilitation psychology), School of Human Services, Griffith University

Public Service Relevant to Research
Melissa Kendall
Member, Princess Alexandra Hospital Allied Health Research Committee
Reviewer, Disability and Rehabilitation

Financial Support

*Grants*
$21,000, PAH Foundation, Longitudinal tracking of anxiety among individuals with spinal cord injury approaching community re-entry. (Melissa Kendall)
The Radiation Oncology Unit at the Princess Alexandra Hospital has continued to be productive during 2004. During 2004 the unit treated 994 patients with cancer, and of these 101 (10.2%) consented to be part of clinical trials. Several new clinical trials were commenced which are multicentre and coordinated through the Trans Tasman Radiation Oncology Group Operations Office in Newcastle. Approval was gained for the initiation of the post-operative skin cancer trial (POST) which will be co-ordinated from the Princess Alexandra Hospital. Also the chairing of the melanoma study TROG 02.01 will now be centred at the Princess Alexandra Hospital, principally as a result of the strong accrual from the Melanoma clinic.

The Unit has continued to expand the number of research staff in order to cope with the extra activity. An Oncology Research Management committee has been formed in conjunction with the Haematology and Medical oncology units which will lead to more efficient utilisation of research staff. On the technology front the unit has seen the introduction of positron emission tomography scan fusion whereby positron emission tomography scans done at the Wesley Hospital can be electronically fused with the radiation planning system. The Princess Alexandra Hospital is the first unit in Queensland to routinely employ this process for the treatment of head and neck, lung and oesophageal cancer, all of whom are commonly referred to this unit via the multidisciplinary clinics.

Another first has been the introduction of parotid sparing treatment planning which results in reduced morbidity from the therapy of head and neck cancers. Finally, three of the medical staff within the unit have successfully presented trial proposals at the ACCORD workshop.

**Research**

**Intergroup Research Activities in 2004**

- **TROG 99.03**: A randomised trial of involved field radiotherapy versus involved field radiotherapy plus chemotherapy for Stage I – II low grade follicular lymphoma.
- **TROG 99.04**: A prospective non-randomised study of chemotherapy and radiotherapy for osteolympoma.
- **TROG 99.05**: Tumour volume as an independent prognostic factor in patients with non-small cell lung cancer.
- **TROG 01.04**: A randomised trial of preoperative radiotherapy for stage T3 adenocarcinoma of rectum.
- **TROG 02.01**: A randomised clinical trial of surgery versus surgery plus adjuvant radiotherapy for regional control in patients with completely resected macroscopic nodal metastatic melanoma.
- **TROG 02.02**: A phase III study of cisplatin, tirapazamine and radiation vs cisplatin and radiation in locally advanced head and neck cancer.
TROG 02.03: A randomised phase III study comparing radical chemo/radiotherapy versus radiotherapy alone in the definitive management of localised muscle invasive TCC of the urinary bladder.

TROG 03.01: A randomised phase III study in advanced oesophageal cancer to compare quality of life and palliation of dysphagia in patients treated with radiotherapy versus chemo-radiotherapy.

TROG 03.02: A feasibility study to evaluate combined chemoradiotherapy as an adjunct to surgery for gastric cancer.

TROG 03.04: A randomised trial investigating the effect of survival and PSA control of different durations of adjuvant androgen deprivation in association with definitive radiation treatment for localised carcinoma of the prostate (RADAR).

TROG 03.05: A phase III study of regional RT in early breast cancer (NCIC MA20).

TROG 03.06: A collaborative randomised phase III trial: The timing of intervention with androgen deprivation in prostate cancer patients with a rising PSA (TOAD).

TROG 03.07: A randomised phase II trial comparing 2 high-dose palliative chemoradiotherapy regimens in patients with locally advanced non-small cell lung cancer.

TROG 03.08: A phase III international randomised trial of single versus multiple fractions for re-irradiation of painful bone metastases.

TROG 04.01: A paired double blind randomised comparison of Cavilon Durable Barrier Cream to 10% Glycerine (“Sorbolene”) Cream in the prophylactic management of post-mastectomy irradiation skin care.

A phase I study to evaluate ZD 1839 (Iressa) and concurrent chemoradiation in patients with locally advanced non-small cell lung cancer. (Critical Study)

A phase I study of synchronous weekly carboplatin and radiation in Merkel Cell Carcinoma of the skin – a collaborative study between Brisbane, Melbourne and Newcastle departments.


Hypofractionated radiotherapy for the palliation of patients with advanced head and neck cancer who are unsuitable for an attempt at curative treatment.

Princess Alexandra Hospital Studies in 2004

A randomised phase II study of preoperative chemotherapy versus preoperative chemoradiation for resectable carcinoma of the oesophagus and gastro-oesophageal junction.

A phase II study of weekly oxaliplatin with continuous infusion fluorouracil and concurrent radiation for the treatment of localised oesophageal carcinoma.

A randomised pilot study to investigate the optimum timing of gemcitabine and concurrent radiation therapy after induction gemcitabine and carboplatin for locally advanced non-small cell lung cancer.

Financial Support

NHMRC Grants

NHMRC. A randomised phase III study in advanced oesophageal cancer to compare quality of life and palliation of dysphagia in patients treated with radiotherapy versus chemo-radiotherapy. (J Harvey)

$4,954.54, RANZCR, NHMRC, ACCV. A randomised trial of preoperative radiotherapy for stage T3 adenocarcinoma of rectum. (B Burmeister)

$2,000, NHMRC. A randomised trial investigating the effect on survival and PSA control of different durations of adjuvant androgen deprivation in association with definitive radiation treatment for localised carcinoma of the prostate (RADAR). (M Lehman)

$18,150, NHMRC. A randomised clinical trial of surgery versus surgery plus adjuvant radiotherapy for regional control in patients with completely resected macroscopic nodal metastatic melanoma. (B Burmeister)

Other Grants

$82,620 received from the Queensland Cancer Fund as part of the QCOG hospital based data manager scheme.

Other Support

Synofi. A phase II study of weekly oxaliplatin with continuous infusion fluorouracil and concurrent radiation for the treatment of localised oesophageal carcinoma. (E Walpole)

$6,000, AstraZeneca. A phase I study to evaluate ZD 1839 (Iressa) and concurrent chemoradiation in patients with locally advanced non-small cell lung cancer. (Critical Study).
Research · Key to Health

Publications

Journal Articles


Published Abstracts


Book Chapters


Public Service Relevant to Research

**Associate Professor Bryan Burmeister**  
Chairman of Scientific Committee of Trans-Tasman Radiation Oncology Group  
Board Member of Australasian Gastro-intestinal Trials Group  
Member of National Cancer Control Initiative Colorectal Cancer Working Party  
Deputy Chairman of Queensland Cooperative Oncology Group  
Member of Medical and Scientific Committee of Queensland Cancer Fund  
Reviewer Anti-Cancer council of Victoria, New South Wales Cancer Council and National Health and Medical Research Council for competitive research grants.  
Reviewer for the following journals: International Journal of Radiation Oncology Biology Physics, Australian and New Zealand Journal of Surgery, Clinical Oncology, Australasian Radiology, Internal Medicine.

**Dr Jennifer A Harvey**  
Member of Queensland Cooperative Oncology Group Management Committee.

**Dr Margot Lehman**  
Member of the Service Planning and Development Committee of the Faculty of Radiation Oncology  
Member of the Genito-urinary Interest Group of the Faculty of Radiation Oncology

**Dr Sandro Porceddu**  
Member of the Scientific Committee of the Australian and New Zealand Head and Neck Society  
Member of the Continuing Professional Development Committee ANZ College of Radiologists (FRO)  
Reviewer for Journal of Clinical Oncology, Lancet Oncology, Head and Neck, Australasian Radiology

**Liz Burmeister**  
Member of the Queensland Institute of Medical Research Ethics Committee  
Member of Breast Cancer Group of Cochrane Collaboration.
The Mater Radiation Oncology operates as part of the Southern Zone Radiation Oncology Service, Princess Alexandra Hospital. Currently the Unit treats 1500 courses per year and the department is equipped with 4 linear accelerators and which treat 110 - 120 patients per day. The referral base is broad and patients attend not only from the Mater campus but also from Princess Alexandra Hospital, Toowoomba and Darling Downs, Gold Coast and Rockhampton. Off site clinics are run in Toowoomba, Ipswich and Charleville. It is the sole provider of radiation oncology services for gynaecology oncology, paediatric oncology and orbital brachytherapy.

A close collaboration has been developed with oncologists on the Mater site and multidisciplinary clinics are held in breast, gynaecology, paediatrics, skin, lung, gastrointestinal and genitourinary malignancy. There has been a strong emphasis on multidisciplinary management of patients with cancer, clinical research and teaching.

There has been active involvement in a broad range of trials predominately under the auspices of the Trans Tasman Radiation Oncology Group. In the past twelve months the Mater Centre has participated in eighteen clinical trials. The former part time position in the Clinical Trials team is now full time – funded jointly by the Queensland Cancer Fund and the Private Practice fund.

A Clinical Trials Group with representation from the trials office, radiation therapy, physics, medical and nursing meets on a monthly basis to encourage new trial development develop processes for the smooth implementation of new trials. This has been chaired by Dr Kumar Gogna and it is proposed that this will increase the profile of clinical trials on the campus which will result in increased accrual.

Current Research Activities

Clinical Trials

TROG 99.03: A randomised trial of involved field radiotherapy versus involved field radiotherapy plus chemotherapy for Stage I – II low grade follicular lymphoma.

TROG 99.05: Tumour volume as an independent prognostic factor in patients with non-small cell lung cancer.


TROG 01.04: A randomised trial of preoperative radiotherapy for stage T3 adenocarcinoma of rectum.

TROG 02.01: A randomised clinical trial of surgery versus surgery plus adjuvant radiotherapy for regional control in patients with completely resected macroscopic nodal metastatic melanoma.

TROG 02.02: A phase III study of Cisplatin, Tirapazamine and radiation vs. Cisplatin and radiation in locally advanced head and neck cancer.

TROG 02.03: A randomised phase III study comparing radical chemo/radiotherapy versus radiotherapy alone in the definitive management of localised muscle invasive TCC of the urinary bladder.
Carcinoma of the skin and radiation in Merkel Cell: A phase I study of post-mastectomy irradiation skin. 10% Glycerine (Sorbolene) cream Durable Barrier Cream (CDBC) to randomised comparison of Cavilon

TROG 04.01: A randomised phase III study in advanced esophageal cancer to compare quality of life and palliation of dysphagia in patients treated with radiotherapy versus chemo-radiotherapy.

TROG 03.04: A randomised trial investigating the effect on survival and PSA control of different durations of adjuvant androgen deprivation in association with definitive radiation treatment for localised carcinoma of the prostate (RADAR).

TROG 03.05: A phase III study of regional RT in early breast cancer (NCIC MA20).

TROG 03.06: A phase III study of the Timing of Intervention with Androgen Deprivation in prostate cancer patients with a rising PSA (TOAD).

TROG 03.07: A randomised phase II trial comparing 2 high-dose palliative chemoradiotherapy regimens in patients with locally advanced non-small cell lung cancer.

TROG 03.08: A Phase III international randomised trial of single vs. multiple fractions for re-irradiation of painful bone metastases.

TROG 04.01: A paired double blind randomised comparison of Cavilon Durable Barrier Cream (CDBC) to 10% Glycerine (Sorbolene) cream in the prophylactic management of post-mastectomy irradiation skin care (Cavilon).

Merkel Cell: A phase I study of synchronous weekly carboplatin and radiation in Merkel Cell Carcinoma of the skin - a collaborative study between Brisbane, Melbourne and Newcastle departments.

Palliative H & N: Hypofractionated Radiotherapy for the Palliation of Patients with Advanced Head and neck Cancer who are Unsuitable for an Attempt at Curative Treatment.

Mucositis: Tolerability and Efficacy of Medihoney as treatment for radiation induced mucositis in Head and Neck cancer patients.


Development of isocentric techniques to replace the current 100cm SSD techniques when treating carcinoma of the breast and associated nodal sites at the Mater Centre. (Principal researchers: Carole McDonnell, Jennifer Biggs, Brock Lamprecht, Kristine Soutar) (continuing).

Ongoing Development of Treatment and Planning protocols and procedures for Patients undergoing Radiotherapy. (Principal coordinator Carole McDonnell)


Dosimetric evaluation of a doubly asymmetric breast treatment involving mono-isocentric tangential and supraclavicular fields.

Evaluation & implementation of tin foils as a bolus material for megavoltage electron beams (ongoing).

Development of computer software, dose calculation algorithms and measurement of radiation beam data for superficial therapy cut out factors & treatment time calculations.

Monte Carlo characterisation of the electron beams produced by the Varian Clinac 2100 C/D linear accelerator (ongoing).

Development of a dataset for quality assurance testing of electron heterogeneity dose calculations performed using 3D treatment planning systems (ongoing).

Quality assurance testing of the ADAC Pinnacle electron MU calculator (ongoing).

Financial Support

NHMRC Grants
$190,000 NHMRC Project Grant (awarded 2003 for randomised phase III trial on bladder cancer).

Other Grants
$30,780 received from the Queensland Cancer Fund as a grant in recognition of clinical trial activity.

Other Support
$47,283 received from Sanofi-Synthelabo: Phase III randomised trial of concomitant radiation, Cisplatin, and Tirapazamine versus concomitant radiation and Cisplatin in patients with advanced head and neck cancer.

$5,000 received from Queensland Nursing Council for Nursing Research Grant for 2004.

$5,000 received from Mayne Pharma for support for clinical research into Merkel Cell Carcinoma.

Publications

Journal


Published Abstracts

Financial Support

NHMRC Grants
$190,000 NHMRC Project Grant (awarded 2003 for randomised phase III trial on bladder cancer).

Other Grants
$30,780 received from the Queensland Cancer Fund as a grant in recognition of clinical trial activity.

Other Support
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$5,000 received from Queensland Nursing Council for Nursing Research Grant for 2004.

$5,000 received from Mayne Pharma for support for clinical research into Merkel Cell Carcinoma.

Publications

Journal


Published Abstracts

**Book Chapters**


**Articles Accepted for Publication**


Poulsen MG. Merkel cell carcinoma of the skin: Diagnosis and management strategies. Accepted for publication in the Journal of Drugs and Aging.

**Lectures and Presentations**


MG Poulsen. Advanced laryngeal and hypopharyngeal cancer. Head and Neck Cancer registrar education weekend, Twin Waters, 9-10th October 2004


**Post Graduate Students**

Pauline Rose, PhD

Cathy Hargraves, Masters in Radiation Therapy

Jodie Webber, Masters in Economics

James Gordon, MSc in Medical Physics, Completed in 2004

Craig Norvill, MSc in Medical Physics, Completed in 2004

Rochelle Panterotto, CT for Radiation Therapists, Completed in 2004

Kristy Abrahams, CT for Radiation Therapists, Completed in 2004

Alan Glyde, CT for Radiation Therapists

Carole McDonnell, CT for Radiation Therapists

**Awards**

Pauline Rose

Princess Alexander Hospital Nursing Achievement Awards 2004

**Public Service Relevant to Research**

Associate Professor Michael Poulsen

Treasurer of Trans-Tasman Radiation Oncology Group

Education Officer for the RANZCR

Chairman of the Quality Improvement Committee of RANZCR

Executive member for the Australian and New Zealand Head and Neck Society (2001-2003)

Member of the Queensland Co-operative Oncology Group 2003

Assistant Editor of Australasian Radiology

Develops radiotherapy services in Toowoomba

Joint Director of Cancer Answers web page directory

Chair of QA technical committee for Mater Centre

Dr Jonathan Ramsay

Member of the National Breast Advisory Committee

Member of the Scientific Committee for the Queensland Cancer Fund

Medical Advisor for Peplin Biotech

Joint Director of Cancer Answers web page directory

Dr Kumar Gogna

Member of Council for RANZCR

Organiser for Combined Urological Group Chairman for Clinical Trials Group at the Mater

Trial Chairman for TROG 02.03 “A randomised phase III study comparing radical chemo/radiotherapy versus radiotherapy alone in the definitive management of localised muscle invasive TCC of the urinary bladder”

Dr Guy Bryant

Member of the Australian Lymphoma Group

Pauline Rose, CNC

Committee member of Radiation Oncology Skill Mix and Workforce Advisory Project: Queensland Health

Collaboration for Cancer Outcomes Research and Evaluation (CCORE) (National Group): Advisory Committee member

Clinical Trials committee member: Radiation Oncology Services, Mater Centre (also Roxanne Nicholas, RN)

Simon McQuitty

Member of the Radiography work-force steering committee

Dr Kym Nitschke

Member of the Queensland Health Radiation Oncology Skills Mix & Workforce Analysis Advisory Committee

Member of Queensland Health Working Party on Training, Education and Accreditation Program (TEAP) for Radiation Oncology Physicians

Examiner for ACPSEM Radiation Oncology Medical Physics Accreditation Panel
The Department of Respiratory and Sleep Medicine is the tertiary referral centre for the Queensland Health Southern zone and for Northern New South Wales. All adult respiratory medicine services are provided with the exception of lung and heart lung transplantation and cystic fibrosis services.

The Department has a busy clinical service, an active research program and conducts and participates in undergraduate and postgraduate teaching activities under the direction of the University of Queensland Southern Clinical School and Griffith University. The main areas of research are in the areas of sleep medicine, mainly sleep disordered breathing, airway disease mainly asthma, chronic obstructive pulmonary disease, lung cancer and respiratory infection.

**Current Research Activities**

**Lung Cancer:**
- A phase I study to evaluate 2D 1839 (Iressa) and concurrent chemoradiation in patients with locally advanced non-small cell lung cancer
- A phase I trial of radiation dose escalation using accelerated concomitant boost radiotherapy concurrently with weekly carboplatin/paclitaxel in patients with good performance status and Stage IIIA/B non-small cell lung cancer
- Prospective Randomised Clinical Phase III Trial of (alternating IV and oral) Vinorelbine plus Cisplatin versus Docetaxel plus Cisplatin in first line chemotherapy of locally advanced or metastatic non-small cell lung cancer patients.

**Chronic Obstructive Pulmonary Disease:**
- Effect of Roflumilast on exacerbation rate in patients with chronic obstructive pulmonary disease: a 52 week double blind study with 500mcg roflumilast once daily versus placebo
- Diagnostic Questionnaire Australian Validation Study
- Swallow dysfunction in COPD. Prevalence and effects of speech pathology intervention. Collaboration with Speech Pathology

**Asthma:**
- Comparison of efficacy of Symbicort turbuhaler bd and as needed with Seretide Evohaler plus Terbutaline turbuhaler as needed in asthmatic patients by evaluation of time to first severe exacerbation. A multicentre, multinational, industry sponsored trial.

**Snoring analysis:**
- Snoring analysis during diagnostic sleep studies in attempt to develop portable, minimally invasive, auto-analysing diagnostic techniques for sleep disordered breathing. (Collaboration with Department of Engineering, University of Queensland).

**Obesity and right heart function:**
- Assessment of changes in sleep disordered breathing and right heart function in subjects managed by the Weight Management Clinic. (Collaboration with Departments of Diabetes and Endocrinology, Cardiology and Hypertension).
- Mechanism of sleep disordered breathing in patients with end-stage renal failure on haemodialysis.
Randomised controlled trial of Nasal sesame oil (Nozoil) in the management of nasal symptoms associated with CPAP for obstructive sleep apnoea.

Lung infection: The Australian Community-Acquired Pneumonia Study: prospective multicentre study to determine aetiology of CAP in Australia, and determine usefulness of pneumonia severity indexes in guiding therapy. (Collaboration with Department of Infectious Diseases, PAH and Austin and Repatriation Medical Centre, Melbourne).

Bronchoscopy: Order of endobronchial testing procedures in diagnosis of lung cancer: Randomising order of bronchial washings with other samples to determine optimal diagnostic yield.

ADDUCE Study - Safety of G811007 in Subjects with Type II Diabetes and Heart Failure (in conjunction with Cardiology).

Pleuroscopy:
- Effect of pleuroscopic drainage on exercise and lung physiology in patients with malignant pleural effusion.
- Effect of pleuroscopic pleurodesis on exercise and cardiorespiratory physiology in patients with malignant pleural effusion. (Collaboration with Professor Marwick and Cardiology)
- Effect of pleuroscopic pleurodesis on chest wall and diaphragm displacement and function. (Collaboration with Dr Bill Finucane, Sir Charles Gairdner Hospital, Dr Stephen Morrison, Royal Brisbane Hospital, Dr John Coucher, Radiology).

Pulmonary thromboembolism: CTPA ordering by the Princess Alexandra Hospital Emergency Department. (Collaboration with Health Services Evaluation Unit).

Publications

Journal Articles

Articles Accepted for Publication
Hukins C. Arbitrary pressure continuous positive airway pressure for obstructive sleep apnoea syndrome. Am J Respir Crit Care Med. 2005, 1;171(5):500-5

Reviews

Published Abstracts

Public Service Relevant to Research

Associate Professor Charles Mitchell
Chair, Anti-Smoking Committee, Queensland Cancer Fund
Chair, Queensland Health Medication Safety Implementation Group
Clinical Chair, National Medication Safety Collaborative, Commonwealth Dept of Health & Ageing
Member, Clinical Examinations Committee, Australian Medical Council
Member, Queensland Health Drug Advisory Committee
Member, National Medication Chart Collaborative, Commonwealth Department of Health & Ageing

Professor M. C. Fong
Member, Clinical Examinations Committee, Australian Medical Council
Member, National Medication Chart Collaborative, Commonwealth Department of Health & Ageing

Dr Luke Garske
Chair, Anti-Smoking Committee, Queensland Cancer Fund

Mr Brenton Eckert
Member, National Medication Chart Collaborative, Commonwealth Department of Health & Ageing

Ms Skye McLennan
Regional Board Representative, ANZSRS
The Early Arthritis Clinic has been established through the Outpatient Department.

Current Research Activities

Clinical Trials

DE018 - A multicentre open label continuation study with subcutaneous D2E7 for patients with rheumatoid arthritis who completed a preceding study with D2E7

Ethics Committee Research Protocol 133/2000. Knoll/Abbott. Protocol No DE013: Prospective multi centre randomised, double blind, active comparator controlled parallel group study comparing the fully human monoclonal anti-TNFα antibody D2E7 given every second week with Methotrexate given weekly and the combination of D2E7 and Methotrexate administered over 2 years in patients with early rheumatoid arthritis (PREMIER)


Ethics Committee Research Protocol – April 2004 – 75/03 Extension. Abbott

Protocol M03-634 (not MO-364) – REALISE. Post-Marketing Observational Study (PMOS). A five year, post-marketing observational study to follow up patients with rheumatoid arthritis formally treated in Study MO2-497 (ReAct) and subsequently prescribed HUMIRA.


Financial Support

$2,920, Abbott, D2E7 in rheumatoid arthritis. (Phillip Vecchio)

$32,000, Bristol-Myers Squibb, BMS 188667 vs Methotrexate in rheumatoid arthritis. (P Vecchio)

$1,450, Abbott, Postmarketing observational study of Adalimumab in rheumatoid arthritis. (P Vecchio)

Wyeth, Oral TMI vs Methotrexate in rheumatoid arthritis. (P Vecchio)

$15,000, Merck, Etoricoxib in rheumatoid arthritis. (P Vecchio)

Publications

Journal Articles


The Social Work Department has continued to encourage all staff to pursue their research interests and present at relevant conferences throughout 2004.

The data collection component of the Outcome Directed Practice Model on Client Directed Outcomes Project—a three year joint research initiative between the School of Social Work and Applied Human Sciences, the Princess Alexandra Hospital, the Prince Charles Hospital and the Australian Association of Social Workers (Queensland Branch) was completed. The model is now being taught to social work students at the University of Queensland and there are plans to develop a training manual for use in other academic institutions and practice settings.

Current Research Activities

Clinical Trials

Psychosocial Assessment for Phase 1 Clinical Trial Spinal Cord Regeneration Project. Patricia Fronek

Other Research

The impact of implementing an Outcome Directed Practice Model on client outcomes. Findings from a comprehensive ARC Linkage study demonstrated that unplanned re-admissions could be reduced by utilizing a new model of social work practice. The research brought together practitioners and researchers to explore customary methods of practice, to discover and develop a new outcome focused method and finally to test the new method. A cluster randomized trial tested customary practice against the new model with 296 patients in two hospital settings. Results show improved patient outcomes for the experimental group in three of five domains; social, psychological and environmental (WHO-QOL); with fewer unplanned readmissions in the experimental group. No significant differences were found in patient satisfaction, with both groups scoring well above patient norms (CSQ).

SCI Sexuality Training, two year follow up study. (M Kendall, S Booth, P Fronek, D Miller, T Geraghty)

Spinal Cord Injury -How Do People Cope? A Ten Year Longitudinal Study. (Dr P Dorsett)

Exploration of Patients Needs for Information on arrival at a Geriatric and Rehabilitation Unit. (S McKain, Dr A Henderson, S Kuys, S Drake, L Kerridge, K Ahern)
Financial Support
$10,000 (Division of Clinical Support Services, Princess Alexandra Hospital Health Service District) to continue on the project “The Impact of Implementing an Outcome Directed Practice Model on Client Outcomes” originally funded for three years by the Australian Research Council /Department of Education, Training and Youth Affairs. (Dr M Shapiro)
Princess Alexandra Foundation, Spinal Cord Injury – How Do People Cope? A Ten Year Longitudinal Study. (Dr P Dorsett)

Publications

Journal Articles


Book Chapters

Articles Accepted for Publication

McKain S, Dr Henderson A, Kuys S, Drake S, Kerridge L, Ahern K, ‘Exploration of Patients Needs for Information on arrival at a Geriatric and Rehabilitation Unit’. (In press)

Lectures and Presentations


Centres for Health Research - Annual Review 2004
**Lectures**


Dorsett P, The psychosocial aspects of disability, for the Course: Physical Activity for People with Neuromusculoskeletal Impairments Lecture, University of Queensland, School of Human Movements, (Masters Level) October 2004. (Invited)


Tonge A. Assertiveness Training session provided to Hospital and Degree Course Chaplains, PAH, 19 May 2004.

Tonge A. Family-Centred Care in ICU. Paper presentation as part of day seminar, Guest panellist for “Open Visitation” panel discussion at same seminar, PAH, 21 July 2004.

**Presentations**


**Post Graduate Students**

**Patricia Fronek,**
Doctor of Philosophy

**Brooke Kooymans,**
Master of Social Work, Completed in 2004

**Jane Whelan,**
Master of Social Work

**Annette Ruzicka,**
Master of Social Work, Completed in 2004

**Jamila Trad-Padhee,**
Master of Social Work, Commenced in 2004

**Angela Tonge,**
Graduate Certificate in Health Studies, Commenced in 2004

**Public Service Relevant to Research**

**Patricia Fronek**
Appointment to Queensland Health’s Panel of External Expert Reviewers (PEERS) to assist Queensland Health Human Research Ethics Committees.
2004 has been a period of active research growth. Research activities continued to build on the two established main areas of research interest in acquired brain injury (in particular stroke, head injury, neurosurgery and Parkinson’s Disease) and in head and neck cancer specifically laryngectomy.

In addition there have been emerging new partnerships made with clinical units in the Princess Alexandra Hospital such as the Respiratory Unit, Speech Pathology Departments in other districts, states and internationally. New areas of clinical interest have included Chronic Obstructive Pulmonary Disease (COPD) and an increased focus on clinical trials in the Ear Nose Throat field. It has been pleasing that the range of research involvement has spanned the continuum of care from acute, rehabilitation to outpatients and has investigated new types of service delivery such as telerehabilitation and involvement of Speech Pathologists in the Emergency Department. Concurrently there has been a significant increase in the percentage of research projects initiated at Princess Alexandra Hospital, clinician involvement in research as well as in the number of post graduate students supervised and presentations at international conferences.

These developments have been led and coordinated by the conjoint research lecturer Dr P Cornwell who was appointed in late 2003 replacing the inaugural appointee Dr L Cahill. Dr Cornwell’s appointment has continued to strengthen the existing strong links and extensive collaborations with the University of Queensland’s Division of Speech Pathology in the School of Health and Rehabilitation Sciences and the affiliated on site Motor Speech Research Unit. Kelli Hancock and Maura Solley have also been recognised as advanced clinicians by Queensland Health partly on the basis of their research contributions. Speech Pathology Department staff also play a key role in allied health research planning and coordination for the Division of Clinical Support Services.

Current Research Activities

Clinical Trials
Evaluation of heat and moisture systems as a treatment option in pulmonary rehabilitation after total laryngectomy or pharyngectomy. (K Hancock, L Cahill, M Parkin, W Coman)

Feasibility and long-term efficacy study of a new non-indwelling voice prosthesis (Provox NID) and its accessories for tracheoesophageal voice restoration in laryngectomized patients. (K Hancock, B Houghton)

Other Research
Investigation of dysphagia in patients with Chronic Obstructive Pulmonary Disease: Prevalence, nature and intervention. (P Cornwell, B Riddle, C Hukins)

Physiological investigation of laryngeal dysfunction following carotid endarterectomy. (B Murdoch, J Lethlean, A Reilly, L Cahill, T McGahan, H Gibbs)
Quality of life, cost effectiveness, survival and functional outcomes following differential management of laryngeal cancer. (W Coman, L Cahill, K Hancock, L Ward, P Cornwell)

The impact of cervical spinal injury on communication: A physiological, acoustic and perceptual analysis. (N MacBean, E Ward, L Cahill, T Geraghty, C Hukins, B Murdoch, M Bock, K Hancock)

High level language impairment following subarachnoid haemorrhage and surgical treatment of aneurysms. (A Thomas, B Murdoch, L Cahill, A. Nowitzke, J Matthew, L La Pointe)

Articulatory Function in Adults following Traumatic Brain Injury. (M Kuruvilla, B Murdoch, J Goozee, P Addis, R Hazelton)

The effects of pallidotomy surgery for Parkinson's disease on motor speech function. (J Lethlean, A Farrell, D Theodoros, B Murdoch, E Ward, P Silburn)

Assessing acquired neurogenic communication disorders online: A telerehabilitation application. (A Hill, D Theodoros, L Ward, T Russell; sponsor – K. Clark)

High level language impairments following primary cerebellar ischaemic lesions. (B Whelan, B Murdoch, L Cahill, G Hall)

Aphasia and information barriers in an acute care setting. (K Knight, L Worrall, T Rose; sponsor – Aimee Turner)

Written education materials for stroke patients and their carers: Perspectives and practices of health professionals. (C. Herd, S Wearing, T Hoffman; sponsor - Aimee Turner)

Language recovery patterns in left hemisphere ischaemia: Integrating ERP and MRI results. (A Faustmann, B Murdoch, D Coplan; sponsor - K. Clark)

Articulatory function in adults following cerebrovascular accident. (Y Chen, B Murdoch, J Goozee; sponsor - K. Clark)

Formatting written health information for people with aphasia. (T Rose, L Worrall; sponsor - W. McCallum)

A neurophysiological investigation of linguistic deficits associated with traumatic brain injury. (B Whelan, B Murdoch. (sponsors - B Houghton, P. Addis))

Dysphagia following laryngectomy: Clinical and physiological presentation. (S Kerle, L Ward, L Cahill; sponsor - K Hancock)

Significant Clinical Projects
Princess Alexandra Hospital - Hospital Wide Tracheostomy Management. (K Hancock, M Solley, B Houghton)

Financial Support
$1300, Garnett Passe/Rodney Williams Memorial Foundation. Quality of Life, cost effectiveness, survival and functional outcomes following differential management of laryngeal cancer. (Professor W. Coman)

$3500, PAH Research & Development Foundation. Allied health outcomes following acute stroke unit management. (Dr J. Lethlean)

$10,000, CONROD. Rehabilitation of articulatory dysfunction in adults following TBI using 3Dimensional graphic modelling of the vocal tract. (B. Murdoch)

$1700, Division CSS Allied Health Research Scholarship. Evaluation of heat and moisture systems (HME) as a treatment option in pulmonary rehabilitation after total laryngectomy or pharyngectomy. (K Hancock)

$4028, CDP/Qld Health CSEU. PAH Hospital Wide Tracheostomy Management. (M. Solley, K. Hancock)

Publications

Journal Articles


Articles Accepted for Publication


Lectures and Presentations

*Invited Presentations


Thomas A, Murdoch B, Cahill L & Noltizke A. Language function in adults following aneurysmal subarachnoid haemorrhage. Presented at the 26th World Congress of the International Association of Logopedics and Phoniatrics, Brisbane, August 2004.

Hancock K & Searles S. We have a voice – Life after Laryngectomy. Presented at the Otolaryngology Head and Neck Nurses Conference, Sydney, March 2004.


Whelan B, Murdoch B, Theodoros D, Cahill L & Cook M. Unravelling subcortical linguistic substrates: Comparison of thalamic versus cerebellar cognitive linguistic regulation mechanisms. Presented at the 26th World Congress of the International Association of Logopedics and Phoniatrics, Brisbane, August 2004.

Cook M., Murdoch B, Cahill L & Whelan B. Reconceptualising models of subcortical participation in language: Challenging the notion of a lateralised linguistics cerebellum. Presented at the 26th World Congress of the International Association of Logopedics and Phoniatrics, Brisbane, August 2004.

Theodoros D, Corman S, Baldock P & Hancock K. The effects of botox and voice therapy in the management of severe muscle tension dysphonia. Presented at the 26th World Congress of the International Association of Logopedics and Phoniatrics, Brisbane, August 2004.


Cornwell P, Murdoch B & Ward E. Motor speech impairment following surgical excision of cerebellar astrocytoma: The course of recovery. Presented at the 26th World Congress of the International Association of Logopedics and Phoniatrics, Brisbane, August 2004.


Post Graduate Students

M. McAluliffe, PhD, Completed in 2004
A. Farrell*, PhD, Completed in 2004
A. Hill, PhD
N. MacBean#, PhD
A. Thomas#, PhD
M. Kuruvilla#, PhD
T. Rose, PhD, Commenced in 2004
Y. Chen, PhD, Commenced in 2004
C. Jones, Hons, Completed in 2004
K. Knight, Hons, Completed in 2004

* Staff member
# Students supervised mainly at the Princess Alexandra Hospital

Awards

Paula Addis
Queensland Health Allied Health Research Scholarship for research into the traumatic brain injury population.

Public Service Relevant To Research

P Cornwall
Reviewer for the Asia Pacific Journal. (The Asia Pacific Journal of Speech, Language and Hearing)

Program committee member for the 26th Congress of the International Association of Logopedics and Phoniatrics, Brisbane.

J Lethlean
Member of Queensland Health’s Panel of External Expert Reviewers
Surgical Oncology (Metastasis Research) Laboratory

Cancer metastasis is the spread of tumour cells to distant sites in the body from a primary tumour, and establishment of new tumour growths at these sites. Metastasis remains the principal cause of death in cancer, since most primary cancers can be successfully treated with surgery or other modalities. The Metastasis Research Laboratory seeks to understand the biological and molecular mechanisms of tumour cell metastasis with the ultimate goal of designing novel therapeutic agents for metastatic disease.

The Laboratory also houses the Princess Alexandra Hospital Tumour Tissue Bank. This Bank is a repository of tumour tissues and matched clinical information from donor patients for the benefit of basic and clinical researchers pursuing cancer research projects. The repository has existed since 1991 and is the largest of its type in Australia, with currently over 3,000 patients having contributed to the Tumour Bank.

Current Research Activities
The Metastasis Research Laboratory is currently focussed on the role of the family of CD44 molecules in metastasis. CD44 is a gene from which many molecules may be derived by alternative splicing, and it is the larger of these molecules, specifically containing exons v3 and v6, that are associated with metastasis. The program in CD44 has existed for ten years and remains funded by NHMRC project grants, which were renewed for 3 years commencing in 2003. The research program is in two parts:

i) to determine the molecular mechanisms by which CD44v3 and v6 mediate metastasis

ii) to develop methods of targeting CD44v3 and v6 to inhibit metastatic tumour growth that may be applicable in the clinic for future treatment strategies

The group have determined that CD44 splice variants containing v3 and v6 have multiple mechanisms of action in promoting metastasis involving both the extracellular domain via effects on the local tumour microenvironment, and by intracellular signalling activity. In our models of tumour metastasis we have been able to inhibit metastatic tumour growth by targeting CD44v3 and v6 using firstly anti-sense technology, domain specific antibodies, and more recently, with a range of peptides designed to interfere with CD44 function in vivo.

Staff
Professor David C Gotley, Head
Professor Jonathan Fawcett
Dr Trina Yeadon
Jenny Reeder
Bridget Douglas

Tumour Tissue Bank
Betty Menzies
Dr Emma Woodhall
Financial Support

NHMRC Grants

$140,000, NHMRC, Mechanisms of CD44v2-10 induced metastasis. (D Gotley)

$70,000, NHMRC, CD44v3 and v6 as targets for metastasis therapy. (D Gotley)

Other Grants

$400,000, Queensland Cancer Fund, Princess Alexandra Hospital Cancer Collaborative Group Initiative

Other Sources

$US240,000, Schering Plough, PAH Tumour Tissue Bank. (D Gotley)

Publications

Journal Articles


Accepted for Publication


Book Chapters


Lectures and Presentations

Professor David Gotley.

Inugural Vellar Lecture, University of Melbourne, March 2004.


Public Service Relevant to Research

Professor David Gotley

NHMRC Grant Review Panel 8a

Board of Research of the Royal Australasian College of Surgeons

Executive of the Surgical Research Society of Australasia

Editorial Boards of British Journal of Surgery and Australian and New Zealand Journal of Surgery

Australian Society for Ultrasound in Medicine
The Therapeutics Research Unit has had an active research year. In 2004, work has continued in the group’s areas of interest, namely drug design, drug delivery, pharmacokinetics, quality use of medicines, and natural products. Two of the unit’s current National Health and Medical Research grants concern targeting of drugs to the skin and drug metabolism by diseased livers. The acquisition of a liquid chromatography tandem mass spectrometer system in February 2005 will significantly accelerate the rate of purification and characterization of novel drugs. In addition, collaborative projects between the Unit and other groups utilizing liquid chromatography tandem mass spectrometer instrument involve research into cancer (Centre for Immunology and Cancer Research), cardiovascular disease, hypertension, diabetes & endocrinology (Adipogen, Centre for Diabetes and Endocrine Research) and drug monitoring of intensive care patients (Princess Alexandra Hospital and Royal Brisbane Hospital Intensive Care Units). The latter project has a particular emphasis on improving outcomes for patients with burns and/or sepsis.

The Therapeutics Research Unit has research interests along the therapeutics continuum from new drug development to the quality use of medicines by people taking the medicines. The unit’s Quality Use of Medicine research has centred on the delivery of health services to maximise the benefits and minimise the risk associated with taking medicines. Other studies in the Therapeutics Research Unit concern some traditional treatments for inflammatory diseases and an extract of an Australian venom on stemming the bleeding in surgical procedures and trauma. The Unit is very honoured that Professor Michael Whitehouse has been invited and then appointed as a joint adjunct Chair in Medicine and Science at Griffith University.

**Current Research Activities**

Targeting drugs by topical application and risk assessment of xenobiotics absorbed through the skin.

Interrelationship of physiology, liver disease and drug structure in relation to drug therapy involving the liver.

Improving therapeutic outcomes in intensive care by relating therapeutic response to underlying pathophysiology – especially in burn patients and in sepsis.

Using microdialysis to define tissue levels in patients – selective cancer chemotherapy delivery to head and neck tumours, assessing antibiotic delivery to burn tissue, regional perfusion of melanoma.

Optimising drug design for effective antithrombotic therapy without side effects (Thrombostat).

Optimising drug design and related formulations for targeting regions in skin (with Pfizer).

In planning phase, to do a multicentre prospective study with Princess Alexandra Hospital and other Hospital’s Accident and Emergency and Geriatric Departments to define drug related causes for admission of elderly patients to hospital with a goal of feeding the information back to community practitioners.
Evaluation of the Quality Care in Pharmacy Program for the Commonwealth.

Assessment of value of dose administration aids in improving elderly patients for the Commonwealth.

Evaluation of quality of medication care outcomes in elderly people in residential care institutions and in community.

Pharmacokinetic modelling of drug delivery and disposition.

Identification and characterisation of defence proteins found in human skin.

Financial Support

Currently Held Grants
$190,000, NHMRC (142914) Targeted drug delivery by topical application. (sole chief investigator).

$150,750, NHMRC (143137) Continuing Research Fellowship. (Includes NHMRC #252903 Fellowship Support Enhancement Option).

$145,000, NHMRC (252871) Effect of liver pathophysiology on hepatic pharmacokinetics (with D Crawford).

$263,236, NHMRC Equipment Grant & The University of Queensland Major Equipment and Infrastructure Grant. Estimation of drugs, peptides and metabolites using HPLC- Mass-spectrometry - microdialysis. Centre for Immunology & Cancer Research, PAH Intensive Care Unit & RBWH Burns, Trauma and Critical Care Research Centre, Royal Brisbane and Women’s Hospital, University of Queensland, RBWH Perinatal Research Centre, Department of Diabetes and Endocrinology, Princess Alexandra Hospital).

Other Support
$30,000, UQ Research Development Scheme. Dialysis-assisted Fibre-Optic Spectroscopy for monitoring drug concentration in situ (with Dr A Zvyagin and Dr Y Anissimov).

$98,500, Thrombostat. (with Dr D Hung).

$420,818, Quality Medication Care Pty Ltd. Quality of Medication Care Group support.

$238,357, Pfizer. Predicting of drug structure determinants of percutaneous absorption.

$35,000, Interderm Pty Ltd. Facilitating topical drug delivery.

Publications

Journal Articles


Published Abstracts


Mills PC, Magnusson BM, Cross SE. The use of microdialysis to provide conclusive evidence of local direct deep tissue and synovial fluid penetration of a topically applied NSAID. International Journal of Clinical Pharmacology and Therapeutics. 4th International Symposium on Microdialysis, June 18th-19th, 2004, Vienna, Austria, p410.


Book Chapters


Articles Accepted for Publication


Lectures and Presentations

Professor Michael Roberts


Topical discussion on “Consumer Product Risk Assessment” at Perspectives in Percutaneous Penetration, La Grande Motte, France 13th-17th April 2004 (with K Brain and J Heylings).

Dr Yuri Anissimov, Dr Sheree Cross

Professor Michael Roberts

Invited lecturer – Perspectives in Percutaneous Penetration Pre conference course on “Skin Structure and Function” at Perspectives in Percutaneous Penetration, La Grande Motte, France 17-19th April 2004

Dr Julie Stokes, Dr Sheree Cross

Developing Wound Care service quality indicators in a novel setting, Community Pharmacy. 2nd World Union of Wound Healing Societies Meeting. 8th – 13th July 2004, Paris, France.

Dr Julie Stokes, GJ Duncan, Dr Sheree Cross

Defining best practice for wound care services provided by community pharmacies. 2nd World Union of Wound Healing Societies Meeting 8th-13th July 2004, Paris France.

Dr Sheree Cross


Dr Julie Stokes

Nurses Know Your Medicines, Ausmed Conferences Pty Ltd, 14th-15th October 2004, Brisbane, Australia.

Summary of quality of medicines studies conducted by the Therapeutics research
Unit including studies related to residential care facilities, domiciliary medication review, dose administration aids, wound care and accreditation in community pharmacy.

German Pharmacy Association - Centre for Drug Information and Pharmacy (ZAPP), ABDA – Federal Union of German Associations of Pharmacists, 29th July 2004, Berlin, Germany.

WoundCare: Be Active. APP Community Pharmacy’s Premier National Conference, 20th March 2004, Gold Coast, Australia.

**Post Graduate Students**

Chapman J, PhD

Craft J, PhD, Completed in 2004

King M, PhD, Completed in 2004

Peachey K, PhD, Completed in 2004

Dissanayaka N, PhD, Commenced in 2004

Fanning K, PhD, Commenced in 2004

Kruger P, PhD

McFarlane B, PhD

Mo Y, PhD

Newton K, PhD

Siebert, G, PhD

Golmohammadi A, MMedSci

Pennisi, R, MMedSci

**Awards**

**Professor Michael Roberts**

Australasian Pharmaceutical Science Association inaugural Lecture (together with Prof LN Sansom AO)

Australasian Pharmaceutical Science Association Achievement award “for outstanding achievements in pharmaceutical science”

**Dr Sheree Cross**

Jack Jacobs Award for best presentation at the Annual Conference of the Australian Society of Cosmetic Chemists

**Public Service Relevant to Research**

Presentations to Lions Medical Research Foundation on Sunday mornings in February (Miss Personality) and in July (Board of Governors) as a speaker on our research achievements

Demonstration of our research by a tour of our laboratories and comments by our staff in February and July.

Presentations to individual Lions clubs eg Lions Aspley/Ashgrove 2004 and assistance to them in giving interviews on medical research for local suburban newspapers

Presentation to RBWH Auxiliary Brisbane 2004

Scientific Discipline Involvement

Roberts M. Member, Scientific Advisory Board, 9th International Conference, Perspectives in Percutaneous Penetration, La Grande Motte, France April 2-5, 2004

Roberts M, Stokes JA. Building synergy between clinical pharmacology and pharmacy in patient medication management, 8th World Congress on Clinical Pharmacology & Therapeutics, 1st – 6th August, 2004, Brisbane.

**Journal Editorial**

Roberts M. Associate Editor. Skin Pharmacology and Physiology

Roberts M. Editorial Board of Journal of Pharmacokinetics and Pharmacodynamics

Roberts M. Editorial Board of Current Drug Delivery

Roberts M. Editorial Board of Clinical Pharmacokinetics

**Adjunct Chairs**

Whitehouse M. Griffith University (Science & Medicine)

Roberts M. University of Canberra (Pharmacokinetics)

**Commonwealth Responsibilities**

Roberts M. Elected Member, Pharmaceutical Subcommittee (PSC) of the Australian Drug Evaluation Committee (ADEC)
The Princess Alexandra Hospital Department of Urology continues to provide comprehensive health care for persons with acute and chronic urological disorders and urological malignancies. Occasions of service provided by this department range from medical consultation, urodynamics investigations, continence advisement, minor and major urological surgery. The service provided by the Department is supported by a strong commitment to ongoing research and education of graduate medical students, allied health professionals extending to both hospital and community nursing and medical officers for the improvement of the individual and community. The Department participates in and initiates collaborative progressive research with the University of Queensland and Queensland University of Technology. These collaborations being with The Urology Research Group, formed within the University of Queensland’s School of Medicine (Southern Clinical Division), the Centres for Health Research Team at Princess Alexandra Hospital and the Queensland University of Technology Hormone Dependant Cancer Laboratory.

The main research outcome of the Urology Department is to improve the outcomes and quality of life of patients with urological complications and malignancies. The Department participates in national and international multicentre clinical trials assessing interventions that may inhibit disease progression, assessment of the safety and efficacy of drug therapy ranging from symptom relief medication and disease progression. The Urology Research Group, under the direction of Dr. David Nicol, has a strong interest in urological malignancies, including cancers of the kidneys, bladder, testes and prostate gland. For patients diagnosed with such tumours, current treatment options may either be ineffective or associated with significant side effects. The Urology Research Group is involved in scientific research focused on finding new, effective and less toxic means of treating patients with urological malignancies. The Department has also has continued and expanded international collaborations with UK based research group Onyvax Ltd and Queensland University of Technology based on the success of establishing stable cell lines that will lead to the development of therapeutic vaccines for urological malignancies.

**Current Research Activities**

**Clinical Trials - Urology**


A phase III extension study of the safety and efficacy of 10mg Atrasentan in men with non-metastatic, hormone-refractory prostate cancer.

A phase III, randomised, double-blind, placebo-controlled study of the safety and efficacy of 10mg Atrasentan in men with metastatic, hormone-refractory prostate cancer.

A randomised, double-blind, placebo-controlled, parallel group study of the efficacy and safety of Dutasteride 0.5mg administered once daily for four years to reduce the risk of biopsy-detectable prostate cancer.
A phase III, parallel group, randomised, double-blind, double-dummy, placebo and active-controlled multicentre trial to investigate the efficacy, tolerability and safety of Fesoterodine sustained release in subjects with overactive bladder syndrome.

Trial comparing chemoradiotherapy vs radiation in the treatment of bladder cancer.

Other Research

The Effects of Hormonal Manipulation in Human Testicular Cancer.

Molecular and phenotypic analysis of primary cell lines established from urological malignancies.

Prostate specific antigen and tissue kallikrein variants as antigenic stimulants for dendritic cell therapy in prostate cancer.

Assessment of a human-specific bone metastasis model in SCID mice and Assessment of the functional role of prostate specific antigen (PSA) and other kallikreins in prostate bone metastasis.

Financial Support

$810,000 Onyvax Pty Ltd (UK): Molecular and phenotypic analysis of primary cell lines established from urological malignancies. (D Nicol, J Clements)

$200 per patient visit Astra Zeneca Pharmaceuticals: A randomised, double blind, parallel group trial comparing Cosudez 150mg daily with placebo in patients with non-metastatic prostate cancer. (D Nicol)

$715 per patient visit Abbott Pharmaceuticals: A phase III, randomised, double-blind, placebo-controlled study of the safety and efficacy of 10mg Atrasentan in men with metastatic, hormone-refractory prostate cancer. (D Nicol)

$715 per patient visit Abbott Pharmaceuticals: A phase III extension study of the safety and efficacy of 10mg Atrasentan in men with non-metastatic, hormone-refractory prostate cancer. (D Nicol)

$8,000 total per completed patient Glaxo Smith Kline: A randomised, double-blind, placebo-controlled, parallel group study of the efficacy and safety of Dutasteride 0.5mg administered once daily for four years to reduce the risk of biopsy-detectable prostate cancer. (D Nicol)

$5,300 total per completed patient Schwarz Pharma: A phase III, parallel group, randomised, double-blind, double-dummy, placebo and active-controlled multicentre trial to investigate the efficacy, tolerability and safety of Fesoterodine sustained release in subjects with overactive bladder syndrome.

$190,000 NHMRC: Trial comparing chemoradiotherapy vs radiation in the treatment of bladder cancer. (Gogna, Duchesna, Berry, Nicol, Walpole, Beller)

The CSL/AUF Grant Urological Society of Australasia 2004 - Prostate specific antigen and tissue kallikrein variants as antigenic stimulants for dendritic cell therapy in prostate cancer

NHMRC Enabling Grants Special Facilities Australian Prostate Cancer Collaboration Bio-Resource (Currently known as “The Commonwealth Bank Australian Prostate Cancer Bio-Resource in partnership with Andrology Australia”). (J Clements, Queensland University of Technology; P Gardiner, Royal Brisbane Hospital; D Nicol, Princess Alexandra Hospital; J Aitken, Queensland Cancer Fund; B Newman, Queensland University of Technology; S Steginga, Queensland Cancer Fund; P Swindle (MHS)

Publications

Journal Articles


localised prostate cancer: a randomized controlled trial. BJU Int, 93(7): 975-9.


Book & Book Chapters

Published Abstracts

Articles Accepted for Publication

Lectures and Presentations
Burke P. Fournier’s gangrene and advanced malignancy Prostate Cancer Collaboration Meeting combined with the Northern Section of the Urological Society of Australasia Meeting 15-19 September 2004.
Cartmill R Learn the Answers to questions about impotence Greenslopes Private Hospital June 2004.
Malone G, Learn the Answers to questions about impotence Greenslopes Private Hospital June 2004.
Nicol D, Predictors of renal function a 6 months post transplantation in recipients of kidneys from live donors. Princess Alexandra Hospital Week August 2004.

Awards
Keith Kirkland Award for research in a clinical environment by Urological Trainees – Simon Wood Urological Society of Australasia Annual Scientific Meeting 7-11 March 2004.
The department of Vascular Medicine provides a clinical service in the diagnosis and management of arterial, venous and lymphatic diseases. Research activities include investigation of vascular diagnostic techniques and participation in clinical trials. Teaching activities include teaching of medical students, FRACP part 1 candidates, radiology and vascular surgery registrars and vascular scientists.

Current Research Activities

Clinical Trials

NHMRC: ASPIRE - (ASPIrin to prevent REcurrent venous thromboembolism). A multi-centre, randomized, double-blind, placebo-controlled clinical trial examining the efficacy and safety of low-dose aspirin after initial oral anticoagulation to prevent recurrent venous thromboembolism.

Sanofi-Synthelabo Recherche: Van Gogh DVT Extension Trial - A multicentre, international, randomized, double-blind, study comparing the efficacy and safety of once-weekly subcutaneous SR34006 with placebo in the long-term prevention of symptomatic venous thromboembolism in patients with symptomatic pulmonary embolism or deep-vein thrombosis who completed 6 months of treatment with vitamin K antagonist or SR3406.

Sanofi-Synthelabo Recherche: Van Gogh DVT trial - a multicentre, international, randomized, open-label, assessor-blind, non-inferiority study comparing the efficacy and safety of once-weekly subcutaneous SR3406 with the combination of (LMW) heparin and vitamin K antagonist (VKA) in the treatment of acute symptomatic deep vein thrombosis.

Sanofi-Synthelabo Recherche: CHARISMA - Clopidogrel for high artherothrombotic risk and ischemic stabilization, management and avoidance. (2002 to current)

Adventis Pharma: EXCLAIM - A double-blind, placebo controlled, parallel, multicentre study on extended VTE prophylaxis in acutely ill medical patients with prolonged immobilization. (2002 to current)

Other Research

Quip Funded Project: Identifying Issues for Compression Therapy Non-concordance in Patients With Venous Leg Ulceration within the Princess Alexandra Hospital Outpatient Wound Management Clinic.

QUT Project: The Response of Cells to Chronic Wound Fluid in Combination with IGF:VN Complexes Prior to and Following Treatment with Compression Bandaging.
Financial Support
Quip, Identifying Issues for Compression Therapy Non-concordance in Patients With Venous Leg Ulceration within the Princess Alexandra Hospital Outpatient Wound Management Clinic. (Dr H Gibbs)
$26,433.00, Adventis Pharma, Exclaim Clinical Trial. (Dr H Gibbs)
$18,368.18, Sanofi-Synthelabo, Charisma Clinical Trial. (Dr H Gibbs)
$29,700.00, Sanofi-Synthelabo, Van Gogh DVT Trial. (Dr H Gibbs)
$2,574.00, Sanofi-Synthelabo, Van Gogh DVT Extension Study. (Dr H Gibbs)
$800.00, NHMRC, Aspire Clinical Trial. (Dr H Gibbs)

Publications
Journal Articles

Lectures and Presentations
The preoperative assessment of patients undergoing noncardiac surgery. The Cardiac Society of Australia and New Zealand Scientific Meeting, Brisbane, August 2004.

Public Service Relevant to Research
Dr Harry Gibbs
Reviewer for Internal Medicine
Editorial board for Primary Intention
Bringing Research to Life

The Princess Alexandra Hospital Foundation raises funds for over 160 scientists who are members of the PA Research Team. The PA Research Team conducts medical and scientific research to help alleviate human suffering and find cures for disease and illness.

Your donation to the Princess Alexandra Hospital Foundation is greatly appreciated.

For further information contact the Princess Alexandra Hospital Foundation:

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