Princess Alexandra Hospital
Centres for Health Research
Annual Review 2006

Research - Key to Health

Translating Science into Better Health
Leaders in Translational Research

Clinical Problem

Basic science &/or clinical research

Evaluation of efficacy of research results on clinical problem (including clinical trials)

Health Service Research (can the solution be applied to routine practice?)

Clinical Solution

PEOPLE INVOLVED

Scientists and Clinicians

Patients

Clinicians & Hospital / Health Managers

Regulatory Authority

Improved Medical Care
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message from the Clinical Chief Executive Officer</td>
<td>5</td>
</tr>
<tr>
<td>Chairman’s Report – Professor John Prins</td>
<td>6</td>
</tr>
<tr>
<td>Highlights 2006</td>
<td>8</td>
</tr>
<tr>
<td>Intensive Care Unit</td>
<td>11</td>
</tr>
<tr>
<td>University of Queensland at the Princess Alexandra Hospital</td>
<td>13</td>
</tr>
<tr>
<td>Clinical Research Fellowship Scheme</td>
<td>15</td>
</tr>
<tr>
<td>New Colleagues</td>
<td>16</td>
</tr>
<tr>
<td>Our Young Investigators</td>
<td>18</td>
</tr>
<tr>
<td>Postgraduate Research Students</td>
<td>20</td>
</tr>
<tr>
<td><strong>Committee Reports</strong></td>
<td></td>
</tr>
<tr>
<td>Research Committee</td>
<td>24</td>
</tr>
<tr>
<td>Allied Health Research Committee</td>
<td>25</td>
</tr>
<tr>
<td>Cancer Collaborative Group</td>
<td>26</td>
</tr>
<tr>
<td>Human Research Ethics Committee</td>
<td>29</td>
</tr>
<tr>
<td>PA Foundation</td>
<td>31</td>
</tr>
<tr>
<td><strong>Reports</strong></td>
<td></td>
</tr>
<tr>
<td>Academic Unit In Geriatric Medicine</td>
<td>34</td>
</tr>
<tr>
<td>Acquired Brain Injury Outreach Service</td>
<td>38</td>
</tr>
<tr>
<td>Aged Care Mental Health Service</td>
<td>41</td>
</tr>
<tr>
<td>Alcohol and Drug Assessment Unit</td>
<td>43</td>
</tr>
<tr>
<td>Anaesthetic Department</td>
<td>44</td>
</tr>
<tr>
<td>Audiology Department</td>
<td>45</td>
</tr>
<tr>
<td>Breast and Endocrine Surgery Unit</td>
<td>47</td>
</tr>
<tr>
<td>Cardiology Department</td>
<td>49</td>
</tr>
<tr>
<td>Cardiothoracic Surgery Department</td>
<td>52</td>
</tr>
<tr>
<td>Cardiovascular Imaging Research Group</td>
<td>53</td>
</tr>
<tr>
<td>Centre for Immunology and Cancer Research</td>
<td>58</td>
</tr>
<tr>
<td>Clinical Pharmacology Department</td>
<td>72</td>
</tr>
<tr>
<td>Dermatology Department</td>
<td>74</td>
</tr>
<tr>
<td>Diabetes and Endocrinology Department</td>
<td>75</td>
</tr>
<tr>
<td>Division of Diagnostic Radiology</td>
<td>82</td>
</tr>
<tr>
<td>Department</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Ear Nose and Throat Department</td>
<td>84</td>
</tr>
<tr>
<td>Emergency Department</td>
<td>87</td>
</tr>
<tr>
<td>Gastroenterology and Hepatology Department</td>
<td>90</td>
</tr>
<tr>
<td>Haematology Department – Clinical and Laboratory</td>
<td>94</td>
</tr>
<tr>
<td>Hypertension Unit</td>
<td>99</td>
</tr>
<tr>
<td>Infection Management Services</td>
<td>104</td>
</tr>
<tr>
<td>Intensive Care Unit</td>
<td>106</td>
</tr>
<tr>
<td>Internal Medicine Department</td>
<td>110</td>
</tr>
<tr>
<td>Liver Research Group</td>
<td>113</td>
</tr>
<tr>
<td>Medical Oncology Department</td>
<td>115</td>
</tr>
<tr>
<td>Nephrology Department</td>
<td>118</td>
</tr>
<tr>
<td>Neurosurgery Department</td>
<td>127</td>
</tr>
<tr>
<td>Nursing Practice Development Unit</td>
<td>129</td>
</tr>
<tr>
<td>Nutrition and Dietetic Services</td>
<td>131</td>
</tr>
<tr>
<td>Occupational Therapy Department</td>
<td>133</td>
</tr>
<tr>
<td>Ophthalmology Department</td>
<td>137</td>
</tr>
<tr>
<td>Pharmacy Department</td>
<td>138</td>
</tr>
<tr>
<td>Physiotherapy Department</td>
<td>140</td>
</tr>
<tr>
<td>Psychology in Division of Clinical Support Service</td>
<td>142</td>
</tr>
<tr>
<td>Queensland Clinical Trials Centre - Biostatistics</td>
<td>144</td>
</tr>
<tr>
<td>Queensland Health Pathology Service</td>
<td>146</td>
</tr>
<tr>
<td>Queensland Spinal Cord Injuries Service</td>
<td>152</td>
</tr>
<tr>
<td>Radiation Oncology Services</td>
<td>158</td>
</tr>
<tr>
<td>Respiratory and Sleep Medicine Department</td>
<td>165</td>
</tr>
<tr>
<td>Rheumatology Department</td>
<td>168</td>
</tr>
<tr>
<td>Social Work Department</td>
<td>169</td>
</tr>
<tr>
<td>Speech Pathology Department</td>
<td>171</td>
</tr>
<tr>
<td>Therapeutics Research Unit</td>
<td>174</td>
</tr>
<tr>
<td>Urology Department</td>
<td>178</td>
</tr>
<tr>
<td>Vascular Medicine Department</td>
<td>182</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>184</td>
</tr>
</tbody>
</table>

**Publications**

<table>
<thead>
<tr>
<th>Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal Articles</td>
<td>186</td>
</tr>
<tr>
<td>Book Chapters</td>
<td>202</td>
</tr>
<tr>
<td>Abstracts</td>
<td>204</td>
</tr>
<tr>
<td>Accepted for Publication (in press)</td>
<td>214</td>
</tr>
<tr>
<td>Abbreviations</td>
<td>218</td>
</tr>
</tbody>
</table>
Message from the Clinical Chief Executive Officer

The past year (our 50th) has been the most outstanding and momentous both for service delivery and for medical and health services research. Research performance, using accepted criteria as outlined in Professor Prins’ report, shows the continuing success of health and medical research at the Princess Alexandra Hospital.

We have come a long way since the Princess Alexandra Hospital Centres for Health Research was established in 1998 to foster and facilitate the research activity at the Hospital. Looking at the previous eight Research Reviews, what stands out is the continuing increase and strengthening of the research programs and the local, national and international collaborations that have occurred. The Centres for Health Research has been the impetus on the campus for this surge in research.

The most significant occasion in 2006 was the success of a colleague and friend, Professor Ian Frazer, Director of the University of Queensland Centre for Immunology and Cancer Research based at the Princess Alexandra Hospital, in bringing an effective cervical cancer vaccine to the world. A 15 year journey concluded with trials for the cervical cancer vaccine being 100% successful and the vaccine becoming commercially available in 2006 to young women worldwide. Professor Frazer was awarded the 2006 Queenslander and Australian of the Year – a great achievement by Ian and his team.

I wish to pay tribute to the work of the Human Research Ethics Committee and its Chair, Mrs Gwynneth Petrie. The volume and complexity of their work continues to increase. I would like to express gratitude for the significant contribution of all committee members who serve as volunteers and whose work is critical to the research activity in the Hospital.

This 2006 Annual Research Review showcases the research effort of the many groups based at the Hospital. I have pleasure in presenting to you the 2006 Princess Alexandra Hospital Centres for Health Research Review. It clearly depicts the collaborative research environment and the vibrancy and commitment of all researchers based at the Princess Alexandra Hospital to finding solutions for better health.

On behalf of myself and the Clinical Council, I congratulate Professor Prins and all of our researchers for an outstanding year in basic, clinical, translational and health services research within the Princess Alexandra Hospital.

Dr David Theile Snr
Clinical Chief Executive Officer
Princess Alexandra Hospital Health Service District
Research activity at the Princess Alexandra Hospital continued to grow in both quality and quantity in 2006, with the highest ever research income of over $20 Million, 122 PhD student enrolments and over 300 publications. Some key additional conjoint research/clinical appointments with three Universities in Nursing, Allied Health and Medical disciplines augur well for our continuing growth. Increased research activity was facilitated with the completion of the fitout of the ground floor of R-wing, co-funded by generous support from The University of Queensland and the Princess Alexandra Hospital Private Practice Trust Fund. This floor now houses thirty-five researchers in cancer and bone biology. It is a pleasure to highlight that the PA Foundation allocated funds of over $750,000 in 2006 for research (in 2007), again ensuring that opportunities for quality research are maintained.

Future growth of translational research has been well supported by the announcement by Premier Beattie of a grant of $100 Million from the State Government to build a state-of-the-art Translational Research Institute on the campus. This represents terrific support from the State for research on the campus. Planning for this facility is underway, with additional funds promised from a number of parties including the University of Queensland and Queensland University of Technology. The building will be sited at the current helipad, with direct research, teaching and clinical links to the Hospital. Along with the Hospital, the new Institute will be a centrepiece for a medical research precinct including the Mater Medical Research Institute, the Pharmacy Australia Centre of Excellence building and The University of Queensland campus via the Eleanor Schonell Bridge.

The Hospital celebrated its Golden Jubilee, and its 50th year research pedigree was highlighted with a well-attended research symposium during Princess Alexandra Hospital Week. The Centres for Health Research was a major sponsor of the 6th Annual Health & Medical Research Conference of Queensland, further highlighting and promoting our medical research presence.

The Hospital and Clinical Council support for research is also tangible, with the introduction of funding for a "Visiting Professor Scheme" and the ongoing (and rare in Australia) support for three Research Registrars each year. It is noteworthy that in a time of international concern for the fate of the clinician-scientist, the Hospital has twenty-seven medically qualified PhD students. This is an achievement to be proud of, and demonstrates the strength of our research environment and mentorship. It also secures our future by providing a pool of highly trained and committed individuals with clinical and research expertise to lead our Hospital in future years.

One should also highlight some of the key achievements of researchers on the campus. Professor Ian Frazer was, of course, named Queenslander of the Year and Australian of the Year and was the first recipient of the Premier’s Fellowship, in recognition of his work in developing a vaccine for cervical cancer. The commercial launch of the vaccine worldwide gave Princess Alexandra Hospital and The University...
of Queensland international recognition. The Queensland launch, by Deputy Premier the Honourable Anna Bligh, was held at the Princess Alexandra Hospital. The first round of the Smart Health Research Grant Program came in 2006, with grants awarded to Professor Darrell Crawford and Associate Professor Sandro Porceddu. Professor Tom Marwick headed up a successful application for a second round of five-year funding from the NHMRC for the prestigious Centre for Clinical Research Excellence program. Diabetes Researchers were awarded a record four Diabetes Australia Research Trust grants, and Dr Tony Russell headed a team that was awarded State Government funding for a research-based Chronic Diseases Management Centre for Diabetes at Inala.

Together, these and many other achievements demonstrate a vibrant and successful research culture at Princess Alexandra Hospital. The challenge is to maintain (and increase) the momentum despite the ever-present limitations on space and competition for research income. We can afford to be very optimistic about the future, however, with increasing numbers of active clinician-scientists, scientists and PhD students in all areas across the campus, plus the significant increase in available funding locally (via the PA Foundation), in the State (via the Smart State initiatives) and Nationally via government and non-government schemes, for which we continue to demonstrate our competitiveness.

In 2006 the Human Research Ethics Committee received 212 new ethics applications plus thirty-six quality assurance projects. I would like to thank the members of the Human Research Ethics Committee and the staff, under the Chairmanship of Mrs Gwynneth Petrie, for their contribution to the Princess Alexandra Hospital research efforts.

I would like to thank all those who contributed to making the research effort possible and acknowledge in particular, the efforts of the PA Foundation, under the Chairmanship of Mr Michael Wille, in raising funds to support the research.

Finally, thanks to Ms Areti Gavrilidis and all the staff at the Centres for Health Research for their tireless efforts.

Professor John Prins
Chair, Centres for Health Research
Princess Alexandra Hospital

“Together, these and many other achievements demonstrate a vibrant and successful research culture at the Princess Alexandra Hospital.”
The year has been the most significant and historic for research at the Princess Alexandra Hospital as well as internationally. A major international research breakthrough was the development of the world’s first cervical cancer vaccine by Professor Ian Frazer, Director of the University of Queensland’s Centre for Immunology and Cancer Research. The vaccine has been designed to help control cervical cancer by preventing infection with human papillomaviruses, the causative agents of this disease. Furthermore, it has the potential to eradicate cervical cancer within a generation. For this outstanding achievement and for his dedication to science, Professor Frazer received both the prestigious Australian of the Year Award and the Queenslander of the Year Award in 2006.

Professor Frazer was a joint winner of the 2006 William B. Coley Award for Distinguished Research in Tumour Immunology from the Cancer Research Institute, one of America’s premier cancer research groups.

Professor Frazer also launched human trials of an experimental therapy for genital warts in August.

Other key highlights included:

- The establishment by the Diabetes and Endocrinology Department, following a successful $1.8 Million innovation proposal, of a Chronic Disease Management Centre at Inala, the aim of which is to deliver tertiary level care in diabetes management in a primary care setting.
- The development by the Neurosurgery Department, in collaboration with Medical Oncology, Radiation Oncology, Radiology, Pathology, Palliative Care, Nursing and Neuropsychology, of the first multidisciplinary brain tumour clinic in Australia.
- The purchase by the Therapeutics Research Unit of a DermaInspect Multiphoton Confocal Microscopy system, suitable for non-invasive skin microscopy, the first of its kind in Australia.
- The award by the National Health and Medical Research Council of a Centre for Clinical Research Excellence grant, valued at $2 Million over five years, to Professor Tom Marwick (University of Queensland and Princess Alexandra Hospital) for research in to Cardiovascular and Metabolic Disease.
- The award by the National Health and Medical Research Council of a Research Fellowship to Professor Matthew Brown, The University of Queensland’s Centre for Immunology and Cancer Research.
- Eight project grants totalling approximately $3.6 Million.
Cervical Cancer Vaccine Launch
In August 2006 Professor Ian Frazer, Director of The University of Queensland Centre for Immunology and Cancer Research, administered the first shots of the cervical cancer vaccine, Gardasil, at the Princess Alexandra Hospital to the first teenage recipients. This vaccine was developed using technology for production of papillomavirus virus like particles, first developed in 1991 in the Centre by Professor Ian Frazer together with the late Dr Jian Zhou.

Warts Vaccine Trial
In 2006 Professor Frazer launched human trials of an experimental therapy for genital warts. Genital warts, which affect an estimated four per cent of Australians, are caused primarily by human papillomavirus (HPV). The vaccine, designed to attack forms of the human papillomavirus, HPV6 and HPV11, which commonly cause genital warts, is now being tested in humans. The vaccine is designed to kill cells infected by the virus and hence assist patients to get rid of their warts. The Princess Alexandra Hospital’s Sexual Health Unit, in partnership with Wenzhou Medical College in Zhejiang Province in China, is now half way through a program to recruit up to 480 men and women (aged between 18 and 65) with recurrent genital warts to trial the new vaccine. Results are expected towards the end of 2008.

Grant Success
National Health and Medical Research Council’s Centre for Clinical Research Excellence Grant
This multidisciplinary group, involving specialists in cardiology, renal disease, diabetes and obesity, liver disease, nursing, hypertension, exercise physiology and biostatistics, will undertake a series of unique studies aimed at understanding and preventing early cardiovascular complications of several metabolic conditions. Sensitive new cardiovascular imaging techniques will be used to detect preclinical abnormalities in the structure, function and metabolism of the heart and vasculature, facilitating the development of new strategies of exercise and lifestyle intervention to prevent these complications. This will build on the successful current Centre for Clinical Research Excellence in Cardiovascular and Metabolic Disease program, including multidisciplinary clinical research training, with major new directions in the interface between the liver and metabolic syndrome and strategies for community-based prevention.

NHMRC Project Grants
A successful round of NHMRC grants was announced in November 2006. Eight health and medical research project grants, a research fellowship and a Centre for Clinical Research Excellence grant totalling approximately $6.24 Million, have been awarded to University of Queensland investigators based at the Princess Alexandra Hospital. The grant projects were:

- Non-viral vectors for targeted delivery of RNAi nucleotides to cervical cancers (McMillan N, Davies N, Parekh H, McGeray R)
- Interaction between PTH and Y2 bone anabolic pathways (Gardiner E)
- Identification of clinically significant subtypes of head and neck cancer cells (Saunders N, Kaurm P)
- CDK4 activity in S/G2 phases influences mitotic fidelity (Gabrielli B, Grimmond S)
- Hepatocyte replicative arrest, hepatic progenitor cells and the ductular reaction in hepatice fibrogenesis (Jonsson J, Clouston A, Powell E, Olynyk J, Knight B)
- Randomised controlled trial of multimedia patient education approaches to preventing in-hospital falls (Haines T, Hill K, McKenna K, Brauer S, Oliver D)
- Validation of Cognitive Assessments using Telecommunication (Gray L, Flicker L, Wootton R, Loh P, Martin -Khan M, Edwards H)
- Exertional dyspnoea with increased filling pressure - Mechanisms and treatment strategies (Marwick T, Sharman J, Coombes J)
- Centre for Clinical Research Excellence in Cardiovascular and Metabolic Disease (Marwick T)

**Smart State Premier’s Fellowship**

Professor Ian Frazer was awarded the inaugural Smart State Premier’s Fellowship for 2006 – $1.25 Million (over 5 years). This fellowship will help Professor Frazer to continue his immunotherapeutic research, translating the immunotherapy success of the cervical cancer vaccine to other diseases.

**Smart Health Research Grants (Queensland Health)**

In February 2006, the Smart Health Research Grants Program was announced as part of Queensland Health’s Research Strategy. The Scheme in 2006 provided funding for five research proposals prepared by public sector employees, which were assessed as fundable but which just ‘missed out’ on funding under the National Health and Medical Research Council (NHMRC) Project Grants Scheme. Two of the five successful projects were awarded to Princess Alexandra Hospital investigators for research into liver disease and cancer:

- Professor Darrell Crawford, Gastroenterology and Hepatology. The pathogenesis of co-toxic liver disease. ($482,750 over three years).
- Professor Sandro Porceddu, Radiation and Oncology. Post-operative chemotherapy versus radiotherapy in high risk cutaneous squamous cell carcinoma (SCC) of head and neck. ($323,075 over five years).

**Princess Alexandra Hospital Week - Golden Jubilee**

**Research Symposium - “Translating Clinical Research – Converting Research into Clinical Outcomes”**

The theme of the Symposium was to highlight research undertaken at the Princess Alexandra Hospital which has direct application to improved patient outcomes. During the Princess Alexandra Hospital Week Research Symposium, some of the cutting edge research carried out by the clinicians and scientists in various fields including clinical service innovation, cancer, liver disease, cardiovascular and metabolic disease, obesity and diabetes was highlighted. The translation of research into the clinical setting of the cervical cancer vaccine, developed by Professor Ian Frazer and his team at The University of Queensland Centre for Immunology and Cancer Research, was a key highlight.
The Academic Department of Intensive Care at the Princess Alexandra Hospital is a part of the Division of Anaesthesiology and Critical Care, Southern School of Medicine, University of Queensland. The Director of Research, Professor Bala Venkatesh, has been involved with clinical and laboratory research for the last fifteen years. The Department also has a Professor of Nursing appointed through Griffith University, two Associate Professors, four Senior Lecturers and a Co-ordinator of Nursing Research, a Clinical Research Co-ordinator along with four PhD students, two of whom are clinicians.

The Department has a number of Critical Care Research Groups:
- Endocrine group (Venkatesh B, Prins J, Cohen J)
- Sepsis group (Kruger P, Roberts M, Venkatesh B, Joyce C)
- Myocardial function assessment in sepsis (Venkatesh B, Marwick T, Joyce C, Sturgess D)
- Tissue oxygenation and apoptosis group (Venkatesh B, Morgan T, Gobe G)
- Burns group (Venkatesh B, Roberts M, Cross S)
- Intensive Care Outcomes Modelling Group (Cook D).

The Department has strong links both with the University, including Professor Tom Marwick (internationally acclaimed cardiovascular research programme), Professor Mike Roberts (Head of Therapeutics Research Unit) as well as well established groups internationally.

The Department is active in both Basic Science and Clinical Research. Two of its members, Drs Venkatesh and Kruger, are convenors of the Basic Science in Critical Care Medicine Symposium.

The Department has also set up an Experimental Intensive Care Facility which has a large clinical load (approximately 1900 admissions per year). The Department also has access to extensive laboratory facilities including HPLC, LCMS/MS Microdialysis, an experimental ICU facility, and well set up rodent models of sepsis and endotoxemia.

The Princess Alexandra Hospital Intensive Care Sepsis Research Group is leading an Australasian multi-centre study of the usefulness of statins in septic shock. This has been made possible through success in an NHMRC grant applied through the Clinical Trials Group of Australia and New Zealand Intensive Care Society.

The Princess Alexandra Hospital Intensive Care Endocrine Research Group has provided new insights into adrenal function in the critically ill and is now conducting an Australasian multi-centre study to advance the understanding further. The Unit is one of the international leaders in the area of “relative adrenal insufficiency syndrome” in sepsis.
The Department is actively involved in national multi-centre trials through the Clinical Trials Group of the Australian and New Zealand Intensive Care Society (ANZICS). The Director of the Department, Associate Professor Chris Joyce, is on the Executive of the Clinical Trials group of ANZICS. He is also on the Data Safety and Monitoring committee of the multi-centre Australasian Study on Aminophylline in Croup.

In addition, the Department has provided opportunities for:

- Infrastructure development enhancing the feasibility of clinical and laboratory studies
- Effective interaction of laboratory researchers and clinicians. Highlights to date include the:
  - Convening of a Critical Care Basic Science Symposium, the first of its kind in the Southern Hemisphere.
- Monthly joint research meetings with presentations by experts in each field, including saving all presentations in a common location, available to all members of the group
- Successful recruitment of PhD students.

To summarise our increasing role both locally and nationally:

- Success in two NHMRC Grants
- Success in five ANZCA Grants
- Appointment of a PAH Foundation Clinical Research Fellow
- Enrolment of two PhD students
- Development of an Experimental Intensive Care Facility
- Driving two national multi-centre studies
The University of Queensland has strong ties with research groups at the Princess Alexandra Hospital. The Faculty of Health Sciences at the University of Queensland (www.uq.edu.au/health) has seven Schools, encompassing all the health professions – Medicine, Nursing, Population Health, Pharmacy, Human Movement Studies, Dentistry and Health and Rehabilitation Sciences. There are many conjoint appointments and honorary academic appointments (clinical and adjunct) across the Princess Alexandra Hospital and the University of Queensland in each of these Schools. In exciting developments, the Faculty of Health Sciences will be collaborating with the new Diamantina Institute. The School of Pharmacy will also be increasing collaborations across the campus in the near future with the ongoing development of the Pharmacy Australia Centre of Excellence (PACE). Multidisciplinary research is a strength of the Faculty and increasing this research at the Princess Alexandra Hospital campus is part of our agenda.

A number of research centres of the Schools of the University of Queensland are located at the Princess Alexandra Hospital. These include the Endocrine Hypertension Research Centre and the Renal Research Centre. There is a wide range of less formal collaborations established to combine clinical expertise with patient focused research in ground breaking development activities. The innovation in research translates directly into optimal patient care from a number of these collaborations.

Looking to the future, the University of Queensland, and especially the Faculty of Health Sciences, seeks to continue to increase the research ties with this major hospital campus, with the focus on improving health outcomes through excellence in research.

The University of Queensland’s School of Medicine was founded in 1936 and today provides the majority of medical training places in Queensland. The main functions of the School are to deliver the graduate medical course and postgraduate courses for medical professionals, to undertake research and provide research-based postgraduate courses, to deliver clinical services and to integrate with hospitals, professional bodies and external research organisations. http://www.som.uq.edu.au/som/index.htm

The School continues to have a long and productive relationship with the Princess Alexandra Hospital with most of the 1178 medical students rotating through clinical placements at Princess Alexandra Hospital at some time during their four years of study. A large portion of their training at Princess Alexandra Hospital is led by University of Queensland academic title holders employed by Queensland Health.
The School offers opportunities and encouragement for staff members to engage in important research projects relevant to the communities served by the School and its graduates and to disseminate the results through national and international peer-reviewed journals. The clinical academics update their teaching in the MBBS program and postgraduate courses with the results of their research. Additionally, research into educational methods is conducted within the MBBS program, with publication of the results in national and international journals.

Clinical and scientific research undertaken within the School is subject to peer and community review and monitoring, through the Princess Alexandra Hospital’s and the University’s Human Research Ethics Committee systems, in accordance with the NHMRC’s National Statement on Ethical Conduct in Research Involving Humans (1999).

The Princess Alexandra Hospital site offers a unique environment for conducting research ranging from basic pursuit of knowledge to understand fundamental bodily processes, right through to applying that knowledge to improving clinical practice. Princess Alexandra Hospital offers a 700+ bed tertiary level facility with over 700 medical staff and visiting medical officers, many of whom hold joint positions or academic titles with the School of Medicine. Research activity at Princess Alexandra Hospital is enhanced by the active School presence and research activity at the nearby Greenslopes and Mater Misericordiae Hospitals, and by our proximity to the University of Queensland St Lucia campus on the other side of the Brisbane River. Planned developments of the Pharmacy Australia Centre of Excellence adjacent to the hospital and the Boggo Road Urban Village will further enhance the research hot spot at this site.

The School’s presence at the Princess Alexandra Hospital continues to grow. In 2006, 130 School of Medicine staff members were based at the Hospital, the largest campus on the south side of the Brisbane River. The researchers at the Hospital attracted $5.18 Million in competitive research funding in 2006. Past research efforts resulted in 178 peer-reviewed research publications from School members at the Princess Alexandra Hospital site in 2005 (most recent official data). Sixty-three of the School’s approximately 340 postgraduate research students in 2006 were based at the Princess Alexandra Hospital with five of the students at Princess Alexandra Hospital completing their higher degrees this year.

The research efforts at this site include Professor Michael Robert’s Therapeutics Research Unit where diverse studies into drug chemistry and quality of use, pharmacology and drug delivery will be enhanced by the recent acquisition of a multiphoton confocal microscope. This equipment will allow non-invasive skin microscopy in many collaborative research fields, including drug monitoring, dermatology, cancer, cardiovascular disease and hypertension.

Your attention is drawn to the many other School of Medicine groups which have contributed to this publication, including the Cardiovascular Imaging Group, the Academic Unit in Geriatric Medicine, the Centre for Diabetes and Endocrinology, the Endocrine Hypertension Research Centre, research groups in urology, liver research, ophthalmology and research activities in the clinical departments of gastroenterology & hepatology, intensive care, ear, nose & throat, the renal unit, and respiratory and sleep medicine.

An outstanding recurring feature quickly apparent from this Review is the diverse network of collaborations that have developed between the School of Medicine research groups and also between the groups and the Hospital’s clinical departments and other university groups. There are collaborative studies into heart failure and liver disease, schizophrenia and diabetes, geriatric medicine and psychiatry, hypertension and clinical pharmacology to name just a few. The Centre for Clinical Research Excellence in Cardiovascular and Metabolic Disorders brings together School groups including the Cardiovascular Research Group, the Centre for Diabetes and Endocrinology Research, the Endocrine Hypertension Research Centre, the Kidney Disease Research Centre and the Gastroenterology and Hepatology’s Liver Disease group along with other University of Queensland groups on site and Hospital clinicians. Collaborations from the Centre for Diabetes and Endocrinology have become so strong, and the research so dynamic, that this group will merge with the Centre for Immunology and Cancer Research to form a new stand-alone University of Queensland Institute, the Diamantina Institute, in 2007.

2006 has seen an increased emphasis on the creation of joint School and Hospital appointments, a move that has attracted some high level appointments to the hospital site and will enhance activities further in coming years. In particular, the School of Medicine is looking forward to Professor David McIntyre’s return to the Princess Alexandra Hospital fold in early 2007 as a conjoint Professor in Medicine and the School’s Head of Princess Alexandra Hospital campus, a development which will no doubt develop the already productive relationship with Princess Alexandra Hospital even further.
The Hospital continues its commitment to support clinical research through the award of three clinical research fellowships annually. A total of twenty-four fellowships have been awarded since the scheme began, allowing registrars in clinical training programs to undertake a year of supervised clinical research. The 2006 recipients of the award were Dr Cynthia Ong and Dr Nghi Mai.

**Dr Nghi Mai**

After gaining the Fellowship to the RACP in 2005, Dr Mai embarked upon a Clinical Research Fellowship at the Princess Alexandra Hospital to further his experience in Echocardiography and Clinical Cardiology. Under the supervision of Professor Thomas Marwick, he engaged in advanced techniques of echocardiography.

His research investigated right ventricular dysfunction in chronic lung disease (mainly COPD). Echocardiography was used to quantitate right ventricular function, pulmonary pressures and pulmonary vascular resistances. These echocardiographic indices to investigate the behaviour of the right ventricular and in chronic lung disease of varying severity. It was determined that the right ventricular is highly afterload dependent and that pulmonary vascular resistance is abnormal in early disease.

Dr Mai had the opportunity to present abstracts at local, national and international conferences.

**Dr Cynthia Ong**

Dr Ong, in her final year as an advanced trainee in Endocrinology, is completing a Clinical Research Fellowship at the Centre for Diabetes and Endocrine Research at the Princess Alexandra Hospital / University of Queensland.

There are important clinical implications for the appropriate identification of androgen deficiency in obese men. In the last twelve months as the Clinical Research Fellow, Dr Ong took on a project to establish the true prevalence of androgen deficiency and its clinical associations in obese men, to explore the regulation of the gonadal axis and examine the reversibility of androgen profile abnormality with weight loss. In the process, a robust and highly sensitive assay for the accurate biochemical analysis of serum testosterone has been developed. It is hoped that this assay will have wider clinical utility in the near future. The baseline results are intriguing and an abstract to a national endocrine meeting is planned.

Dr Ong, who has been awarded an NHMRC Medical Research Scholarship to commence in 2007, will be continuing with the above project as a PhD student. It is expected that this study will establish an algorithm to comprehensively assess androgen adequacy in obese men. Importantly, an established high prevalence of hypogonadism and a robust biochemical method for testosterone measurement will be expected to be the foundation for future randomised trials using testosterone therapy to treat androgen deficiency in obese men. It is foreseeable that improved body composition, energy levels, muscle strength and quality of life will lead to better compliance and success with weight loss treatment.

The study will also lead to valuable clues to the aetiology and disease mechanism of androgen deficiency and may lead to new research directions.
New Colleagues

Professor Mark Kendall

A joint appointment with The University of Queensland’s Australian Institute for Bioengineering and Nanotechnology, Centre for Immunology and Cancer Research and Faculty of Health Sciences, Professor Kendall recently returned to University of Queensland after eight years at the University of Oxford, where he was initially Postdoctoral Research Fellow and then concurrently Associate Director of the PowderJect Centre for Gene and Drug Delivery, a University Research Lecturer and Lecturer at Magdalen College.

In addition to working closely with his University of Queensland and other Australian colleagues, Professor Kendall maintains strong international research links, including with groups at the University of Oxford and Princeton University.

Since his return in March 2006, he has been awarded a three-year Queensland Government Smart State Senior Fellowship ($300,000) and $240,000 in cash and kind by biotech firm Coridon as industry sponsor. Other research grants awarded include an Australian Research Council Discovery Grant (jointly with Professor Michael Roberts) of $675,000 and a National Health and Medical Research Council Project Grant of $390,000.

Professor Kendall is researching and developing a nanopatch that can be used to deliver vaccines and other therapeutics directly to targeted cells. Each silicon patch has thousands of tiny projections, too small to see with the naked eye, which are coated with the vaccine. When the patch is pressed onto the skin the projections push into the cells themselves and the coating dissolves inside them. Prototypes of the product have already been developed and trialled without the vaccines on a handful of people with promising results. The advantage is improved, safer and pain-free vaccines. The techniques being developed by Professor Kendall will enable rapid and effective mass vaccinations with only one-thousandth of the vaccine required per patient. Work is underway to optimise the technology to further improve immune responses.
Dr Emma Duncan

Dr Duncan joined the Princess Alexandra Hospital in 2005. At the end of 2005 she was awarded two fellowships, one from The University of Queensland Fellowship for Women (50% fulltime load) and another from Priscilla Kincaid-Smith Award from the Royal Australasian College of Physicians. This gave sufficient support for a return to active research after a break due to caring for her children and clinical training. At the start of the year, her project mainly focussed upon the development of giant cell tumours and the role of a gene, \textit{SH3BP2}, in their development. Mutations in this gene are responsible for Cherubism, a disease in which giant cell tumours develop in the maxilla and mandible around the time of tooth eruption. The role of this gene, or of the pathway involved, in other non-cherubic tumours remained unknown. During 2006 she investigated a number of giant cell tumours available from the Tumour Tissue Bank at Princess Alexandra Hospital, and did not find mutations of \textit{SH3BP2}. However, other genes involved in this signalling pathway remain to be assessed.

Meanwhile, a new research focus in the anabolic control of bone developed as the year progressed. Dr Duncan has assessed the role of \textit{LRP5} in determining bone density in families and individuals with high bone mass; as well as \textit{LRP5} we hope to assess a number of other candidate genes involved in the anabolic control of bone (such as \textit{Wnt} and \textit{sclerostin}). Ultimately, she aims to a full genome association study in this family cohort. The first genome association study in osteoporosis, performed in a patient cohort with high and low bone mass will be completed early in 2007. These results will be pursued in further detail in a large osteoporosis cohort.

The study of Risedronate in Adults with Osteogenesis Imperfecta type 1 was completed in February and presented at the American Society for Bone and Mineral Research in September as a Plenary Poster and as an oral presentation at the Australian and New Zealand Bone and Mineral Society.

The Brisbane Bone Group was successfully re-instituted. The purpose of the group is to bring together basic scientists and clinicians involved in bone, providing a cross-fertilisation of ideas and a forum for collaboration. So far, Dr Duncan has been delighted with two very successful and well-attended meetings.

Dr Duncan was successful in attracting funding from the PA Foundation and from the ANZ Childhood Medical Trust and looks forward to support in the laboratory work from her new research assistant, Miss Kate Addison, who has been appointed to start in 2007.
Dr Ingrid Hickman

Dr Hickman came from a nutrition and dietetics background and gained a PhD investigating the effect of obesity on the development and progression of chronic liver disease. This research was the first to identify the benefits of lifestyle intervention as a treatment for chronic hepatitis C and non-alcoholic fatty liver disease.

The Centre for Diabetes and Endocrine Research offered her the opportunity to further develop this knowledge by linking with basic scientists and investigating potential mechanisms whereby weight loss and physical activity may impact on chronic disease.

Dr Hickman is an NHMRC Australian Clinical Research Fellow with the University of Queensland Diamantina Institute. Her major responsibilities include co-ordination of large-scale obesity interventions, investigation of the role of adiponectin in the development of obesity-related chronic disease and addressing liver-related outcomes in patients with type 2 diabetes. In 2006, Dr Hickman accepted an honorary position with the Princess Alexandra Hospital Liver Unit to carry on an ongoing collaboration with dietetic services to manage and audit weight loss outcomes in obese patients with liver disease. Her publication record in 2006 demonstrates varied collaborations with researchers across the Princess Alexandra Hospital campus including Nutrition and Dietetics, Renal Medicine, Hepatology, Intensive Care and the Centre for Diabetes and Endocrine Research basic scientists. The research fellowship continues until the end of 2008 and will further develop investigations into the role of obesity and dietary intake in the progression of chronic liver disease and build on knowledge gained to date concerning methods of improving weight loss outcomes in clinical obesity research.

Dr Hickman's future aspirations are to strengthen the collaboration between clinical and basic scientists in order to expand the expertise in nutrition research at Diamantina Institute.
After graduating in 1999 from the University of Technology, Sydney with a BSc and honours, Dr Moffitt went to the UK where she took up a post at the Oxford Centre for Diabetes, Endocrinology and Metabolism. She began a PhD under the tutelage of Dr Anne Clark, investigating the declining function of the insulin-secreting islet beta cells associated with type 2 diabetes.

In August 2005 Dr Moffitt returned to Australia to join the Hospital’s Cell Signalling Group at the Centre for Diabetes and Endocrine Research as part of a project investigating the role of inosine monophosphate dehydrogenase (IMPDH) in lipid accumulation and adipogenesis. The laboratory recently reported that IMPDH may play a previously unrecognised role in metabolism and accumulation of lipids, the dysregulation of which contributes to the metabolic complications associated with diabetes and obesity. Ongoing studies have been designed to determine whether reducing IMPDH activity represents an attractive approach to reverse the increase in fat mass associated with obesity and/or the associated metabolic complications such as type 2 diabetes.

In order to better understand the putative role of IMPDH in lipid metabolism, Dr Moffitt’s research has also taken a cell biology approach to investigate its regulation at the molecular level. Intriguingly, these studies have shown that regulation of IMPDH is disrupted by mutations that cause Retinitis Pigmentosa. The studies have also revealed that retina-specific splice variants exist and preliminary characterisation by the group suggests that these may be subject to additional levels of regulation. This work was presented at the Retina Australia Biennial Congress in Canberra and at several national and international meetings.

Dr Moffitt was awarded a University of Queensland Postdoctoral Fellowship commencing in 2006.
It is wonderful to see record numbers of postgraduate students supervised at the Princess Alexandra Hospital. Over one-hundred and fifty students were enrolled in PhD and Masters in 2006.

**Letitia Burridge**

Ms Burridge was awarded a PhD scholarship by the Princess Alexandra Hospital Cancer Collaborative Group to undertake her PhD on the *The experience of becoming a lay carer for a person with cancer*. Increasing cancer survival, coupled with finite health resources and increasing home-based care, means that willingness to fill the lay caregiving role is a vital aspect of cancer care. It is often assumed that family members are willing and able to take on this increasingly onerous task. A systematic review (Burridge, Winch and Clavarino 2007 in press) found that reluctance has adverse outcomes for carers, patients and service providers. Literature suggests that perceived lack of choice is a key indicator of reluctance to care. Perceived disruption to daily activities may also indicate reluctance.

In Phase I of this two part study, longitudinal survey data provided by a sample of cancer carers during the patients’ final year were analysed, focusing on variables measuring willingness, choice and disruption. The results suggest that spouses were more willing than non-spouses and valued the role more. Non-spouses felt less choice in taking the role. Male carers reported greater willingness than females, and valued the role more. Female carers felt less choice than males, and found caregiving more disruptive and stressful. These preliminary findings are limited by the potential for socially desirable responses, and the likely absence of reluctant carers from the final year sample. Such factors would result in an under-estimation of reluctance. In Phase II, qualitative data were obtained via in-depth interviews with key informants including lay carers of patients with recurrent cancer. Key themes were identified. Reluctance was apparent, and was influenced by the quality of the carer-patient relationship. Some committed carers experienced persistent reluctance, although spousal and non-spousal carers may continue caregiving for different reasons.

Caregiving reluctance is a complex phenomenon because of relational factors. It is a displaced issue because it is socially unpopular and morally required. For these reasons it remains under-explored. If successful, an NHMRC grant application will enable future work to focus on conceptualising caregiving reluctance. This will lay a foundation for developing a comprehensive measure of cancer caregiving reluctance, an important adjunct to interventions designed to recognise and reduce carers’ perceived lack of choice and disrupted lifestyle.
Dr Peter Kruger

Dr Kruger is a Senior Intensive Care Specialist, has a busy clinical practice and strong research interests centred on body fluid changes and drug behaviour in patients with sepsis. He is undertaking his PhD looking at ‘The assessment of pharmacokinetics and pharmacodynamics in critically ill patients’. This work began from clinical observations and an interest in drug pharmacology. It relates to fundamental questions about a better understanding of the alterations in drug pharmacokinetics and pharmacodynamics that may occur in patients with severe sepsis. The initial observation was that the neuromuscular blocking drug Cisatracurium didn’t seem to work effectively in some patients with severe sepsis. The problem seemed to be more general in that some drugs behaved unexpectedly in patients with severe sepsis. This project has evolved in two parts concerning “Drug Pharmacokinetics and Body fluid distribution” and “Statin therapy in patients with severe sepsis”. Dr Kruger completed the confirmation process in 2006 and as a result it has become clear the project will concentrate on one of these areas only.

Matt Stephenson

Mr Stephenson is a 3rd year PhD student at The University of Queensland’s Diamantina Institute for Cancer, Immunology and Metabolic Medicine. He is investigating hepatic glucose metabolism and its response to various hormones and drugs. He is also studying the intracellular signalling pathways involved. Defects of hepatic glucose metabolism are associated with various diseases including type 2 diabetes, non-alcoholic fatty liver disease and hepatitis C infection.

Highlights of his research to date include the optimisation of primary rat hepatocyte isolation to achieve viable, responsive cells and development of functional assays to measure glucose output and glycogen synthesis.

Over the past year, Mr Stephenson has been studying the relationship between hepatocyte iron stores and insulin action and has also been investigating the effect of metformin, an anti-diabetic drug, on hepatic glucose metabolism. Future work will include studies into the action and signalling of adiponectin, a potent insulin sensitiser that primarily affects the liver. This may provide a greater understanding of the link between obesity, insulin resistance and type 2 diabetes.

Mr Stephenson’s project is likely to have clinical significance, given the importance of the liver in glucose homeostasis and the range of diseases resulting from its dysregulation. The data may identify possible targets for therapeutic interventions.
“Medical research is our investment in our children’s future.”

Professor Ian Frazer
2006 Australian of the Year
Committee Reports
The Research Committee continues to foster basic, clinical, translational and health services research within the Princess Alexandra Hospital Health Service District. The committee promotes and facilitates excellence in research. It provides advice on strategic and operational policy on research direction, management and reporting. In addition, the Committee provides input to research infrastructure and the effective management of the research facilities including the Biological Research Facility, and promotion of specific initiatives to facilitate research.

Some of the areas addressed and changes initiated during the year included:

- A process to review the wet-lab research space across the campus,
- The completion of fit-out of the ground floor of the research building and occupancy in 2006.
- Development of the publication “Princess Alexandra Hospital Medical Research – Translating Science into Better Health”

Thank you to Professor Ian Frazer for his enormous contribution to the Committee.

### Committee Members

**Chair**
Professor John Prins

**Members**
Professor Ian Frazer
Professor Tom Marwick
Professor Michael Roberts
Dr Devinder Gill
Dr Jennifer Lethlean
Dr Brian Gabrielli
Professor Leanne Aitken
Dr Sarah Winch
Dr Jon Whitehead
Anne-Louise Bulloch
David Brown-Rothwell
Meaghan Douglas
Gwynneth Petrie

**Ex-Officio**
Areti Gavrilidis
The allied health research group includes health professionals providing diagnostic, rehabilitative and clinical support to the Hospital and community through specialised services and generates research within medical and social disability models.

Throughout 2006 the Allied Health Research Committee continued to:

- Facilitate, encourage and support high quality research in allied health which has been nationally and internationally recognised and has contributed significantly to evidence based practice.
- Facilitate, coordinate and advocate for the dedicated allocation of resources to research in allied health.
- Provide the support to increase the number of research proposals, publications, presentations and successful grant applications in allied health.
- Increase the profile of allied health involvement in research at PAH and the community.
- Ensure allied health research needs are represented and considered in strategic planning.
- Encourage networking and collaborations with nursing and medical researchers.

Achievements

Achievements in 2006 included:

- Over one million dollars of funding awarded
- A significant increase in postgraduate research with more than ten doctoral students (with an additional six sponsored by allied health departments), seven masters students and seven honours students
- Over thirty-two publications in refereed journals, two book chapters and more than fifteen abstracts
- An increase in collaborative/multi-disciplinary research projects
- Cancer Collaborative Group PhD and Allied Health Research Scholarships awarded
- Provision of Allied Health Research & Quality Forums
- PAH Week 50th Jubilee session “Quality of Care Enhancing Quality of Life”.

Committee Members

Chair
Dr Jennifer Lethlean

Members
Dr Ruth Barker
Annette Broome
David Brown-Rothwell
Julie Connell
Judith Coombes
Dr Petrea Cornwell
Sue Cumming
Dr Jenny Fleming
Sue Foss
Dr Terrence Haines
Melissa Kendall
Kiley Pershouse
Angela Vivanti
The focus in 2006 was on strategic planning and building upon the existing research programs and research capacity based around the research and clinical strengths. The Princess Alexandra Hospital Cancer Collaborative Group continued to make significant progress in translational and clinical research.

**Research Program**

**Gene Profiling**

The group continued to make advances in their milestones with four projects to predict clinical outcomes.

1) B-Chronic Lymphocytic Leukaemia; a number of genes have been identified associated with a change from stable to progressive disease in 2006.

2) Osteosarcomas microarray screening was able to identify a gene that has the potential for metastasis, enabling prediction of chemotherapeutic response in osteosarcoma patients with 97% accuracy. Further trials are underway.

3) Acute Myeloid Leukaemia - The Haematology Department in collaboration with the University of Queensland Centre for Immunology and Cancer Research initiated preclinical and clinical trials to evaluate the effectiveness of combination therapy of valproate + cytosine arabinoside in elderly Acute Myeloid Leukaemia (AML) patients.

4) Head and Neck Cancer – preliminary data in 2006 shows valproate is an effective therapy for head and neck cancer.
Clinical Research

Forty-seven projects were submitted to the Princess Alexandra Hospital Human Research Ethics Committee during the year. Twenty-eight of these were clinical trials of which seven were investigator initiated.

Training & Mentoring Young Investigators

A further two Scholarships were awarded in 2006. In total five scholarships and one practitioner fellowship have been awarded since 2004 as a result of the Queensland Cancer Fund Collaborative Development Grant. Good progress has been made by all recipients.

Allied Health

Mr David Brown-Rothwell, Audiology Department: Prediction of Hearing Outcomes in Acoustic Neuromas Surgery: Correlation between Audiological Results, Magnetic Resonance Imaging, Surgical Findings, and Histopathological Appearance.

Ms Bena Riddle, Speech Pathology Department: Long-term Swallowing Outcomes in Head and Neck Cancer Patients Treated with Curative Intent Altered Fractionation Radiotherapy

Nursing

Ms Letitia Burridge, UQ School of Population Health: Gender Differences in Lay Caregiver Needs, Burden and Support while Caring for a Patient with Recurrent Cancer.

Science

Mr Fang Zhou, UQ, The Diamantina Institute for Cancer, Immunology and Metabolic Medicine (formally Centre for Immunology and Cancer Research, and Centre for Diabetes and Endocrine Research): The Molecular Mechanisms of Tumour Immunotherapy.

Ms Sarina Cameron, UQ, The Diamantina Institute for Cancer, Immunology and Metabolic Medicine (formally Centre for Immunology and Cancer Research and Centre for Diabetes and Endocrine Research): Treatment failure in Head & Neck squamous cell carcinoma may be due to biologically distinct tumour cell subtypes.

Practitioner Fellowship

Dr Alex Guminski, Medical Oncologist, Princess Alexandra Hospital. Significant progress has been made by Dr Alex Guminski who was awarded the Practitioner fellowship. Preliminary research data has been successful in identifying that valproate is an effective histone deacetylase inhibitor in patients with head and neck squamous cell carcinoma. This work is due to be presented by Dr Guminski at the American Association for Cancer Research meeting in Los Angeles in 2007.

Translating Research Outcomes

Cochrane Review

The Cochrane Review which began in 2004 on the Sequencing of chemotherapy and radiation therapy for early breast cancer has been completed and published in October 2006. The conclusion reached is that current practice (adjuvant CT prior to RT) for early breast cancer is not detrimental. The quality of this recently published review has been recognised by NICE; they intend to incorporate our review in their upcoming guidelines (http://www.nice.org.uk/) as well as by Health Behaviour News Service, who have further disseminated our results online acknowledging the PAH Cancer Collaborative Group contribution.

Ongoing Education

Professional and public education activities continued to be held throughout 2006. These included Bimonthly Cancer Collaborative Group Seminars and A Cancer Collaborative Group Community Lecture topics on Melanoma at Princess Alexandra Hospital – a fifteen year story and New Biological treatments for Cancer, to an audience of community members.

Publications

In 2006 over sixty peer review articles were published by members of the Princess Alexandra Hospital Cancer Collaborative Group. Additionally there was an increase in the number of published abstracts, and book chapters have resulted from the research activity.

New Initiatives

In 2006 there were a number of new initiatives including:

- the inaugural meeting New Directions in Leukaemia Research (April 2006)
- the funding of three registrar projects and two collaborative projects.
### Additional Achievements

During the course of the year members of the Cancer Collaborative Group successfully obtained additional sources of funding through competitive peer review including:

- **$400,125.** NHMRC Project Grant. “Non-viral vectors for targeted delivery of RNAi nucleotides to cervical cancers” (McMillan N, Davies, Parekh, McGregor)
- **$451,375.** NHMRC Project Grant. “Identification of clinically significant subtypes of head and neck cancer cells” (Saunders N, Kaurm P)
- **$511,500.** NHMRC Project Grant. “CDK4 activity in S/G2 phases influences mitotic fidelity” (Gabrielli B, Grimmond S)
- **$455,000.** NHMRC Career Development Award. “New viral and immune biomarkers are a powerful tool in the clinical management of patients with EBV-positive lymphomas” (Gandhi M, QIMR/Princess Alexandra Hospital).
- **$78,000.** QCF Project Grant. Viral and Immune markers in EBV+ Lymphomas. (Gandhi M, Gill D).
- **$50,000.** PA Foundation. (Mollee P).
- **$103,000.** Leukaemia Foundation of Queensland. (Mollee P).
- **$313,000.** ALLG Tissue Bank support from Leukaemia Foundation of Australia LFA and Price Waterhouse Cooper (Marlton P).
- **$75,000.** Queensland Cancer Fund. (Porceddu S).
- **$15,000 RANZCR, $8,000 PA Foundation, $10,000.** PAH Cancer Collaborative Group. (Porceddu S).
- **$323,075.** Queensland Health Smart Health Research Grant over five years. “Post-operative chemoradiotherapy vs. radiotherapy in high risk cutaneous squamous cell carcinoma of head and neck”. (Porceddu S).

### Committee Members

**Chair**

Dr Devinder Gill

**Members**

Professor Ian Frazer
Associate Professor Damien Thomson
Associate Professor Bryan Burmeister
Dr Jennifer Lethlean
Dr Terrence Haines
Professor John Prins
Elaine Beller
Charlotte Ng
Dr Alexander Guminski
Associate Professor Nicholas Saunders
Associate Professor Mark Smithers
Professor David Gotley

**Ex-Officio**

Areti Gavrilidis
Human Research Ethics Committee

The Princess Alexandra Hospital Human Research Ethics Committee is constituted according to and compliant with the National Health and Medical Research Council Guidelines and the National Statement. The function of the Committee is to ensure that all research practices relating to humans conducted within the Princess Alexandra Hospital, Queensland Elizabeth II, Logan-Beaudesert Health and Nambour Health Service Districts are conducted in an ethical manner in compliance with National Health and Medical Research Council guidelines and relevant legislation.

2006 was another busy year for the Princess Alexandra Hospital Human Research Ethics Committee. Mrs Gwynneth Petrie continued as Chair and was joined in October by Mrs Sheran Pavey as Acting Ethics Manager and Secretary to the Committee. Ms Anne Walsh was seconded for six months to the position of Acting Principal Policy Officer, Research and Ethics Unit, Queensland Health.

During the year, two additional medical members joined the Committee enabling broader support in areas of Paediatrics and Public Health. External reviewers, both on and off site, provided expert advice and support for Phase I and Phase II studies.

In December, Dr Richard Lim left the committee after two years of dedicated service. Dr Lim's intellect and wise counsel will be missed. Dr Derek Dickey continued to contribute to the Committee through his invaluable experience and expertise. Additional advice and support was provided by Dr John North, Deputy Chair, Human Research Ethics Committee.

Significant events and achievements included:

- The revision of the National Health and Medical Research Council “National Statement on Ethical Conduct in Research Involving Humans” (1999) continued in 2006 and the final draft will be presented to Parliament in 2007 with the expected launch thereafter.

- The consultation and development of a national ethics application form between the National Health and Medical Research Council and State jurisdictions including Queensland Health and other health organisations in Australia resulted in the launch of the National Ethics Application Form in September 2006.

- The pilot for the Queensland Health Mutual Acceptance Model for Multi Centre Research began in November 2006. An evaluation of the pilot will be undertaken in March 2007.

- The Human Research Ethics staff continued to provide education and support to researchers regarding submission and ethical approval.

- The attendance by Human Research Ethics Committee Chair at the 2006 Intensive Research Ethics Course in December, conducted by the Centre for Ethics in Medicine and Society, Monash University, Department of Medicine, Nursing and Health Sciences.
The Princess Alexandra Hospital Human Research Ethics Committee reviewed a total of 212 new submissions in 2006. It is a tribute to the commitment and industry of the volunteer committee that a workload of a peak of thirty-nine new studies in December 2006 was efficiently handled.

The Chair and the Committee extend appreciation to the staff for their continuous work towards improving and streamlining the processes for approval of new and amended research submissions.

Comments and feedback from research staff are always welcome.

Committee Members

Chair
Gwynneth Petrie, PH.C., FSHP

Members
Dr Richard Lim, MBBS, MD, MPhil, MRCP
Dr John North, MBBS, FRACS
Dr Robert Zubeshaw, MBBS, Dip RANZCOG

Kerri Holzhauser, RN, B.Health Sc. (Nursing) TNCC, CATN
Jan Maxwell, Cert.Teaching – Lay female
Judith Coombes, B Pharm, MSc Pharmacy
Dr Richard Roylance, B MEd Sc MBBS FRACP (since September)
Dr Alun Richards, MBBCh, MPH, FAFPHM, FAChAM (since September)
John Bennett, B.Com, LLB - Lawyer
Dr Derek Dickey, MBBS, FRACP

Staff
Anne Walsh, BSc, Grad Dip Arts (Prof. Ethics), MA (Philosophy) Ethics Manager (to October)
Sheran Pavey, Dip HRM - Acting Ethics Manager and Secretary (since October)
Helen Banks, Executive Support Officer

Apart from the Chair, Secretary (Ethics Manager) and Executive Support Officer, all members act in an honorary capacity.
The PA Foundation continued to expand during 2006, providing record funding of $520,000 for medical research on the Princess Alexandra Hospital campus for the year ending December 2006. For 2007 the Foundation anticipates being able to provide in excess of $800,000, and in excess of $1 Million for 2008.

The primary objective of the Directors, management and staff during 2006 was to increase current and future ability to financially support and encourage medical research at the Princess Alexandra Hospital. To that end, a number of new and productive strategies and actions have been undertaken, including the establishment of commercial ventures, the establishment of an Endowment Fund, workplace giving programs, and an increased emphasis on major gifts and bequests.

The PA Foundation continues to enjoy a strong relationship with the Queensland Hotels Association and the Mater Foundation in the form of Hotel Care Week. The event raised over $200,000, thus demonstrating the dedication of Queensland Hotels Association to give back to the community by supporting medical research. Another major corporate donor, Australian Liquor Marketers and its many customers, have contributed over $400,000 since 2002.

During the past year the PA Foundation was very pleased to be able to substantially increase the depth and breadth of the Board of Directors. New Directors include; Professor John Prins (Chair, Centres for Health Research), Professor Ian Frazer (Australian of the Year for 2006 and developer of the acclaimed Cervical Cancer vaccine), Dr David Theile Snr (Clinical CEO of the Princess Alexandra Hospital), Dr Richard Ashby (Director Elect – Executive Director of Medical Services at Princess Alexandra Hospital), Mr Andrew Griffiths (Company Director), and Ms Linda Lavarch, MP (Director Elect).
The PA Foundation is a separate statutory authority appointed under an Act of Queensland Parliament and is controlled and managed by an independent Board of Directors. Members of the Princess Alexandra Hospital Foundation Board are appointed by the Governor in Council and are drawn from the local business and medical community. The Foundation does not receive any funding from the State or Federal Governments and relies almost completely on donations from the general public and the business community.

**Board of Directors**

**Chairman**
Mr Michael T Wille BA (Hons.) Eng. Phil., Yale University, Company Director

**Deputy Chairman**
Mr William Deutrom OAM, PNA, FMA, FAICD, Company Director

Dr Richard Ashby (Director Elect), MBBS, BHA, FRACGP, FRCMA, FACEM, FIFEM, Executive Director of Medical Services, Princess Alexandra Hospital

**Directors**
Mr Richard Bowly AFAMI (Dip.), FAIA (Dip.), FAIM, Company Director

E Professor Ken Donald MBBS, PhD, FRCPA, MRAC Path., FRACMA, FRACS

Mr Gareth Evans BA (UQ), Retired

Mr Anthony N Ford ASIA, Retired

Professor Ian Frazer BSc. (Hon), MBChB, MD, Director, Centre for Immunology and Cancer Research, University of Queensland.

Mr Andrew Griffiths FAIM, MBA, BTRP, Company Director

Ms Lenore Guthrie FAIM, MHA, Grad.Cert.Crit.Care, BN, Chief Executive Officer, PA Foundation.

Ms Linda Lavarch MP (Director Elect), LLB.

Professor John Prins MBBS, FRACP, PhD, Chair, Centres for Health Research, Princess Alexandra Hospital, Professor of Endocrinology, University of Queensland, Director, Centre for Diabetes and Endocrine Research, University of Queensland.

Dr David Theile (Snr), AO, PhD(Hon), MBBS(Hon), MS, FRACS, FRCS (Ed)(Hon) FANZCA (Hon), Clinical CEO of Princess Alexandra Hospital

**Secretary**
Ms Heather Tyrrell Q Health Grad.Cert. Management, Manager Governance and District Executive Management Services, Princess Alexandra Hospital

**Research Committee**

Professor Ken Donald, MBBS, PhD, FRCPA, MRAC Path., FRACMA, FRACS, Chairman

Professor Ranjeny Thomas MBBS, MD, FRACP, Professor of Medicine, University of Queensland, Deputy Director, Centre for Immunology and Cancer Research.

Professor Thomas Marwick MBBS, PhD, FACC, FESC, FRACP, Professor of Medicine, University of Queensland.

Professor Leanne Aitken RN, ICCert, BHSc Nurs) Hons, GCert Mgt, GDip Sc Med (Clin Epi), PhD, FRCNA, Professor of Critical Care Nursing, Griffith University and Princess Alexandra Hospital.

Associate Professor Mark Smithers MBBS, FRACS, FRCS (Eng) Associate Professor of Surgery, University of Queensland, Director, Upper Gastro-Intestinal and Soft Tissue/Melanoma, Princess Alexandra Hospital.

Professor John Prins MBBS, FRACP, PhD, Chair, Centres for Health Research, Princess Alexandra Hospital, Professor of Endocrinology, University of Queensland, Director, Centre for Diabetes and Endocrine Research, University of Queensland.

**Foundation Staff**

Ms Lenore Guthrie, Director and CEO

Mr Nick Allen, Major Bequests and Gift Manager

Ms Anne Andrew, Director of Marketing

Ms Jennifer Cotter, Office Manager
The Academic Unit in Geriatric Medicine has had the most successful year to date. New research grants and contract income secured in 2006 exceeded $1.4 Million, which will underpin a robust research agenda for the next few years. Development work of software to support health planning and geriatric assessment is well advanced. New telemedicine techniques to enable reliable assessment and care of older people in provincial and rural settings have increased the Unit’s focus on the use of new technologies to improve care.

The Unit is helping the Princess Alexandra Hospital to establish itself as a “telegeriatrics” hub for Queensland. The Unit’s assessment system development is part of an international effort to improve the quality of care of older people when in hospital. This work is generating considerable interest among Queensland hospitals, where numerous demonstration projects are currently underway. (http://www.soms.uq.edu.au/augm).

Current Research Activities

Clinical Trials

Modelling the future: A policy flight simulator at the acute – aged care interface (L Gray, G McDonnell, T Broe, D Gibson). This project is developing a computer simulation of the interactions between acute, residential and community care to assist in service planning. Simulation models will be developed for application at national and regional levels. The trial, which is scheduled for completion in 2007, is funded by AHMAC / National Health and Medical Research Council.

Hospital Service Delivery Model for South-East Queensland (L Gray, G McDonnell, C Travers). This project is exploring options for the delivery of hospital based health care services in South-East Queensland over the coming decade. The means of
delivery is via a computer simulation method to evaluate the potential impact of increasing the number of hospital beds in one region of South-East Queensland. At least two strategies are being considered and the potential impact of each approach is being examined in terms of a number of variables including the dollar cost and the effect on hospital waiting times. This is supported by funding from Queensland Health.

**Validation of the interRAI-AC for detection of delirium: Agreement with clinician assessment** (J Endecott, M Khateeb, J Morris, L Gray). This project is developing and testing a screening tool for delirium using items within the interRAI Acute Care schedule.

**Dementia Research Mapping Project** (H Bartlett, C Travers, L Gray). The main aim of this project was to review, summarise and catalogue leading national and international dementia research across key areas including epidemiology, aetiology, risk factors, diagnosis and assessment, treatment and management, dementia care, and support for people with dementia and their carers.

**Development of clinical guidelines for delirium** (C Brand, T Snell, L Gray). This project has developed clinical guidelines for best practice assessment and management of people with delirium and their care needs in a hospital, across the acute – aged interface, and residential or home based aged care.

**Geriatric outcomes study in hospital** (L Gray, J Hirdes, A Wilson, E Beller, I Scott, P Ramritu, et al). This is a prospective study aiming to identify predictors of adverse outcomes in hospital (delirium, falls, functional decline, pressure ulcer, etc) among older medical patients. It is aimed to develop an omnibus screening strategy that will risk profile patients at admission with an aim to better target prevention and treatment strategies. In addition, there will be “validation” of the inbuilt screeners for dementia, delirium, depression and malnutrition. This project is partly funded by the JO and JR Wicking Trust.

**Reliability and validity of the interRAI Acute Care protocol** (L Gray and the interRAI Collaborative). Professor Gray coordinated this eight nation study to test the reliability and validity of the revised interRAI Acute Care assessment schedule. This study was completed in 2006.

**Development of Remote Assessment Strategies using Telemedicine** (L Gray, P Varghese). This work is developing and testing techniques for conducting inpatient geriatric screening and assessment in remote and provincial settings which lack geriatric medical or gerontic nursing expertise. This work is supported by Queensland Health.

**Application of e-health strategies to support remote geriatric assessment and care planning** (L Gray, R Wootton, S Margolis, P Scuffham). This project involves application of a comprehensive geriatric assessment instrument at the Mater Rockhampton Hospital that is then accessed remotely by a geriatrician for assessment and feedback/comments to the treating doctor and hospital staff on the patient condition. This work is supported by the Department of Veterans Affairs.

**Piloting Comprehensive Geriatric Assessment in a Teaching Hospital** (P Varghese, A Siller, L Gray, V Casey, P Matthews, et al). An integrated approach is being trialled to improve geriatric evaluation and management through the use of a simplified referral and assessment process using a single point of contact and accountability for rehabilitation, residential care and community based aged care programs (eg
transition). This should improve integration and linkages/professional relationships between hospital and community based services. This work is supported by project funding from Queensland Health Strengthening Aged Care.

The Development and Validation of a Comprehensive Geriatric Telemedicine Service Model (L Gray, P Varghese, D Theile, C Thorburn, P Bristow, J March, et al). This project aims to enhance the Geriatric Medicine and Rehabilitation services of a hospital without current access to geriatric medical expertise, using a variety of e-health and telemedicine strategies. It will pilot and validate a model of service delivery for “distance” geriatric services which will have applicability throughout Queensland. This work is supported by project funding from Queensland Health Strengthening Aged Care.

Validation of Cognitive Assessment using Telecommunication (L Gray, L Flicker, RWootton, PK Loh, M Martin-Khan). This project assesses the use of video conferencing to enable geriatricians to assess and diagnose memory problems including dementia. Establishing the reliability of diagnosis and other related assessments, and identifying which functions can confidently be carried out via video conferencing, is one step towards extending the availability of this service to rural and remote communities. The Memory Disorder Clinic at Princess Alexandra Hospital has been used for the pilot in this study. This project has received approval for funding from the National Health and Medical Research Council and the main study will commence in 2007.

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). This international multicentre randomised control trial is examining the effects of a nerve growth factor on patients with mild to moderate Alzheimer’s disease as add on treatment to cholinesterase inhibitor therapy. This study is funded by the Sanofi Synthelabo pharmaceutical company.

Ambulatory monitoring of elderly patients in a rehabilitation setting (L Gray, V Cheung, M Karunanithi, C Yelland). This project has been developed to determine if patient activity can be monitored by an accelerometer device on a long-term basis in a rehabilitation hospital setting. The aim of the research is to collect acceleration data to assess the accuracy and practicality of an activity classification algorithm in detecting the position and movement of elderly patients with an accelerometer device attached to their waist. If the activity classification algorithm is proved to be accurate in measuring functional status and mobility of older patients and the accelerometer device is considered to be practical in clinical settings, then it could be useful to improve clinical monitoring and patient management, particularly in assessing and prescribing activities in rehabilitation programs.

Transition Care: Evidence and Innovation (I Cameron, M Crotty, L Gray, S Kurrle, M Luscz, P Scuffham, et al). This project will evaluate the efficacy of transition care models from a variety of clinical, economic and consumer perspectives. The Unit is one of three lead agencies in this 5 year National Health and Medical Research Council Health Services Research Program.

## Financial Support

### Grants

- **$139,875** Health Services Research Program Grant. Transition Care: Evidence and Innovation. Research Program Grant (Cameron I, Crotty M, Gray L, Kurrle S, Luscz M, Scuffham P, et al.) University of Sydney, Flinders University.
- **$70,000** Queensland Health. Distance comprehensive geriatric assessment. Strengthening Aged Care Grant (Gray L, Varghese P, Scuffham P, Martin-Khan M) Toowoomba and Mount Isa Hospitals.
- **$32,000** Queensland Health. Geriatric online assessment (Gray L, Wootton R). Centre for Online Health.
- **$71,043** Department of Veterans’ Affairs. E-health strategies to support remote geriatric assessment and care planning. Grant (Gray L, Wootton R, Margolis S, Scuffham P) Mater Mackay & Mater Rockhampton Hospitals.
- **$1,500** Department of Health and Ageing. Dementia Research Mapping Project. Tender (Bartlett H, Gray L, Byrne G).
- **$5,000** Department of Health and Ageing. The development of clinical guidelines for delirium. Tender (Brand C, Snell T, Gray L).
Other Support
$40,000 Sanofi Synthelabo. Study of the efficacy of Xaliproden in patients with mild to moderate dementia of the Alzheimer’s type (Varghese P, Lie D).

Publications
1 journal article
8 abstracts
3 article in press

Lectures and Presentations
Professor Len Gray
Planning for long term care and interactions with the hospital system in Australia. Invited Keynote Address Fourth World Congress on Long Term Care in Chinese Communities. October, Macau, China. (Invited speaker).

Post Graduate Students
Prabha Ramritu, PhD, in progress
Melinda Martin-Khan, PhD, in progress
Vivian Cheung, PhD, commenced

Public Service Relevant to Research
Professor Len Gray
Member, Ministerial Implementation Taskforce. This group is overseeing the implementation of the most recent national aged care reforms, on behalf of the Minister for Ageing.
Associate Editor, Australasian Journal on Ageing.
Fellow and Board of Management, interRAI Consortium. interRAI is an international working group of aged care researchers that develops assessment protocols, data sets and quality tools for aged care and related fields.

Dr Paul Varghese
Member, Clinical Reference Group advising the 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.
Chair, Falls Injury Prevention Committee, State-wide clinical network funded through the Patient Safety Centre.
Co-Chair, Southern Area Health Service Aged Care Clinical Network.
Co-Chair, Division of Medicine – Princess Alexandra Hospital.
The Acquired Brain Injury Outreach Service is a specialist community rehabilitation service for people with acquired brain injury, their carers and service providers. The primary aim of the Service is to facilitate successful community integration for people with acquired brain injury. Training and consultancy to service providers and carers was also provided, as well as research and development activities to improve outcomes for people with acquired brain injury and their families.

The Acquired Brain Injury Outreach Service research highlights during the year have centred on the development and evaluation including:

- The successful funding of a new project to develop and evaluate community-based rehabilitation models for Aboriginal and Torres Strait Islander Queenslanders with Acquired Brain Injury.
- Expansion of an existing collaborative with the Mater ROBIN team to also include the Queensland Paediatric Rehabilitation Service in developing and evaluating models of transition care for young people moving from paediatric to adult brain injury rehabilitation services.

Current Research Activities

Improving community-based rehabilitation for Aboriginal and Torres Strait Islander Queenslanders with Acquired Brain Injury: Identification of key dimensions to enhance service suitability.

An investigation of the service and support needs of individuals with acquired brain injury and their families and carers during and after transition from hospital to the community.

Developing and implementing a model of transition care for young people moving from paediatric to adult community-based brain injury services.
Exploratory cluster analysis of community rehabilitation outcome among individuals with spinal cord injury and acquired brain injury.

Self management support networks for people with stroke and brain injury after hospital discharge: Development and evaluation.

Predicting care needs in the community for people with brain injury.

Identifying the parenting needs of people following acquired brain injury.

**Financial Support**

$96,448 Community Rehabilitation Research Scheme, Community Rehabilitation Workforce Project. Improving community-based rehabilitation for Aboriginal and Torres Strait Islander Queenslanders with Acquired Brain Injury: Identification of key dimensions to enhance service suitability. Project grant (Gauld S, Smith S, Kendall M).

$48,177 Disability Services Queensland. An investigation into the service and support needs of individuals with acquired brain injury and their families during the transition from hospital to community. Research Tender (Worrall L, Fleming J, Cornwall P, Haines T, Kendall M, Chenoweth L, Ownsworth T).

**Lectures and Presentations**

**Susan Gauld, Sharon Smith**


**Melissa Kendall**

Exploratory cluster analysis of community rehabilitation outcome among individuals with spinal cord injury and acquired brain injury. Allied Health Research Forum, Brisbane, April.

Exploratory cluster analysis of community rehabilitation outcome among individuals with spinal cord injury and acquired brain injury. Australasian Faculty of Rehabilitation Medicine 14th Annual Scientific Meeting, Cairns, May.

Transition from Hospital to Home. Bridging Gaps in the Rehabilitation Continuum. University of Queensland, School of Health and Rehabilitation Sciences. Brisbane, August and November. (Invited lecture).

**Areti Kennedy, Ray Quinn**

Skills to Enable People and communities (STEPS): Pilot findings of a Queensland-wide program for adults with stroke, ABI and TBI. Poster presented at the Inaugural Brain Injury Australia Conference, Gold Coast, June.

**Elissa Morriss, Areti Kennedy, K Ingwersen**


**Elissa Morriss, Sharon Smith**


**Elissa Morriss**


**Ray Quinn**


**Lynne Ridgway**

Rehabilitation of acquired brain injury clients with severe challenging behaviours. University of Queensland Neuropsychology Department, May. (Invited lecture).

**J Roser, Suzanne Wright, Susan Gauld, Sharon Smith**

The Brain Crew: A continuous quality improvement initiative to support children who are related to an adult with acquired brain injury. Oral paper presented at the Inaugural Brain Injury Australia Conference, Gold Coast, June.

**Post Graduate Students**

**Melissa Kendall, PhD, in progress**

**Lynne Ridgway, PhD, in progress**

**Awards**

**Melissa Kendall**

Allied Health presentation award for paper presented at the Australasian Faculty of Rehabilitation Medicine 14th Annual Scientific Meeting, Cairns, May.
Public Service Relevant to Research

Melissa Kendall

Member, Princess Alexandra Hospital Allied Health Research Committee.

Review Panel, Princess Alexandra Hospital Allied Health Research Scholarships.

Member, Queensland Spinal Cord Injury Service Research Committee.

Steering Committee Member, Outcome Measures Project for Community Based Rehabilitation Teams.

Convened and conducted Research Seminar Series presentations to all allied health, medical and nursing staff working in spinal cord injury and acquired brain injury rehabilitation at Princess Alexandra Hospital.

Reviewer, Disability and Rehabilitation.

Reviewer, Brain Injury.

Reviewer, Clinical Rehabilitation.

Reviewer, Spinal Cord.
Aged Care Mental Health Service

The Aged Care Mental Health Service is the psychogeriatric service within the Princess Alexandra Hospital. Psychogeriatrics is a subspecialty of psychiatry that centres on 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 Service continues to provide educational expertise especially to trainees in geriatric medicine and psychiatry.

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 staff assisted in a pilot study looking at the feasibility of dementia diagnostic services through telemedicine run by the Department of Geriatric Medicine.

Highlights included the funding of a Phase 1 from the National Institute of Clinical Studies which allowed continuation of the Dementia Evidence Implementation Network through 2005 and the development of a behavioural emergencies guideline for medical and surgical wards. The Aged Care Mental Health Service was also selected as one of eight psychogeriatric services from five States participating in the National Mental Health Benchmarking Forums across 2006-07. The forums assist in developing the quality use of clinical and operational information within public mental health services.

In May-June the service coordinated the Statewide Older Persons’ submission to Queensland Health’s Mental Health Action Plan for 2006-11.

The service will host the Queensland Node of (National Framework for Action on Dementia funded) Dementia Clinical Research Consortium II. Research on prevention, promotion and early intervention in dementia funded through the consortium, under the auspice of the University of Queensland is anticipated in 2007.

Staff

Dr David Lie,
Director
Carolyn Coombes, Darina Rich, and Vicki Green
acted as Team Leaders
Annette Broome,
Senior Psychologist, Division of Mental Health
Janet Meadows,
Nurse Unit Manager

Visiting Medical Officers
Dr Jeannette Best
Dr Sandra Thomson
Dr Pam Van Der Hoef

Research Assistants
Natasha Squelch,
Clinical Trial Coordinator (part-time)
Orla Fox,
Occupational Therapist, Benchmarking Project Officer

Dr David Lie and Team

Translating Science into Better Health
Current Research Activities

Clinical Trials
Trial of xaliproden in mild to moderate Alzheimer’s disease (for funding refer to Academic Unit in Geriatric Medicine report).

Other Research
National Benchmarking Forums for Public Mental Health Services.

Financial Support
$110,000 Australian Government (The National Mental Health Information Strategy Committee). National benchmarking forums for public mental health services. Project grant (Dr D Lie, O Fox).

Lectures and Presentations

Dr David Lie

Community Care Seminar, Aged Care Queensland. The role of public Mental Health services in dementia care. Brisbane, September.
Alcohol and Drug Assessment Unit

This is a multidisciplinary clinical service which has developed to improve the identification, assessment and treatment of alcohol, tobacco and other drug problems which occur both within the Princess Alexandra Hospital and amongst patients referred by community health practitioners. Cognitive and Behavioural therapy with adjunctive pharmacotherapy are the main treatments offered. The Unit is also involved in the Queensland Illicit Drug Diversion Initiative.

Current Research Activities

- The application of cognitive and behavioural techniques in the treatment of addictive disorders and its effect on psychosocial function and health perception.
- The impact of cognitive and behavioural therapy on alcohol and cannabis related expectancies.
- The application of machine learning techniques to clinical decision making in alcohol dependence treatment.
- Psychometric and psychosocial outcomes amongst liver transplant recipients in whom alcohol contributed to liver disease.
- The development of valid and reliable measures of craving.

Financial Support

$10,000 PA Foundation. Machine learning techniques in the prediction of alcohol treatment outcomes (Connor JP, Feeney GFX, Young R, Symons M).

Publications

3 journal articles

Post Graduate Students

M Symons, PhD, in progress
M Grieve, MClinPsy, completed
Anaesthetic Department

**Staff**

- Dr Peter Moran, Director
- Dr Joe Power
- Associate Professor Norris Green
- Dr P Sivalingam

**Current Research Activities**

**Clinical Trials**

The effect of anaesthetic technique on the outcome from cardioversion.

**Other Research**

- The use of work domain analysis in simulation of cardiopulmonary bypass emergencies.
- Application of Lee’s Index as a benchmarking tool in an anaesthetic department.
- The role of nitric oxide and VGEF in the cardiac state associated with liver failure.
- Optimal fluids for use as a priming solution in cardiopulmonary bypass.

**Publications**

- 3 journal articles
Audiology Department

The Audiology Department continues to provide national leadership in the area of intraoperative cranial nerve monitoring. A strong translational research focus is reflected by projects that impact directly on the management of patients with acoustic tumours and other skull base lesions.

Ongoing collaborative research includes studies conducted with the Ear Nose Throat Department comparing patient outcomes of different surgical approaches in terms of hearing and facial nerve function, and with the Physiotherapy Department evaluating the post-operative treatment of balance dysfunction. Close links have also been fostered with patients through support groups to facilitate long-term follow-up.

Current Research Activities

Developing a single index measure of hearing preservation following acoustic neuroma surgery.

Developing a simple classification of facial nerve outcomes following acoustic neuroma surgery.

Establishing a role for balance and mobility measures as part of the usual conservative management of patients with acoustic neuromas.

Multi-centre study of bone anchored hearing aids for single-sided deafness.

Staff

Evelyn Towers,
Director

David Brown-Rothwell,
Senior Audiologist and PhD student

Megan Haynes,
Audiologist

Tracey Ross,
Audiologist

Jillian Sellars,
Audiologist

Katie Stapleton,
Audiologist

Dr Wayne Wilson,
Visiting Lecturer
Financial Support


Publications

1 journal article

Lectures and Presentations

Ben Panizza & David Brown-Rothwell

Acoustic Tumours: Small Steps and Giant Leaps. Princess Alexandra Week, August.

Acoustic Tumours. Queensland Branch Audiological Society of Australia, November.

David Brown-Rothwell
Neuroaudiology and Acoustic Neuromas. Audiology Students, University of Queensland, September.


Post Graduate Students

David Brown-Rothwell, PhD, in progress

Public Service Relevant to Research

Evelyn Towers
Member, Steering Committee State Services for Deaf and Hearing Impaired.

Jillian Sellars
Queensland President, Audiological Society of Australia.

David Brown-Rothwell
Member, Allied Health Research Committee
Member, Princess Alexandra Hospital Research Committee.
Patron, Acoustic Neuroma Association.
Breast and Endocrine Surgery Unit

The Breast and Endocrine Surgical Unit provides a comprehensive world-class tertiary surgical service for the management of breast and endocrine surgical conditions within a multi-disciplinary setting. Over one hundred and thirty newly diagnosed breast cancers were treated in 2006. Breast cancer is managed in conjunction with the Medical Oncology and Radiation Oncology Units. Surgeons met weekly with clinicians from the other disciplines in a combined breast oncologic multi-disciplinary clinic to ensure the provision of ‘state of the art’ breast cancer treatment in keeping with nationally accepted best practice guidelines. A multidisciplinary endocrine meeting was held monthly between Surgeons, Endocrinologists and Radiologists to discuss and streamline management of patients with endocrine disorders.

The respective surgeons also work closely with the Breast Screen 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 was involved in data collection for the Royal Australian College of Surgeons National Breast Cancer Audit of all breast cancers treated at the Princess Alexandra Hospital.

The Unit continued to play a role in both undergraduate and post-graduate teaching of breast and endocrine surgical conditions.

Current Research Activities

Clinical Trials

An international multicentre study of anastrozole versus tamoxifen in post-menopausal women with hormone sensitive Ductal-Carcinoma-in-Situ. (Coordinated by Australian New Zealand Breast Cancer Trials Group. Chief Investigator Associate Professor Ian Bennett).
An international multicentre study of anastrozole versus placebo in post-menopausal women at increased risk of breast cancer. (Co-ordinated by Australian New Zealand Breast Cancer Trials Group. Chief Investigator Associate Professor Ian Bennett).

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 (Royal Australian College of Surgeons SNAC Trial).

Role of harmonic scalpel in thyroidectomy: an on-going clinical audit.

Ultrasound guided excision of impalpable breast lesions: an on-going clinical audit.

Publications
1 journal article
1 abstract

Lectures and Presentations

Associate Professor Ian Bennett


Results from an Australian Familial Breast Cancer Screening Clinic For High Risk Women. 30 September. (Invited Speaker).

Paper presentation: Results from an Australian Familial Breast Cancer Screening Clinic for High Risk Women. Queensland Cancer Oncology Group Meeting at Queensland Cancer Fund, Gregory Terrace. 31 October. (Invited Speaker).

Public Service Relevant to Research

Associate Professor Ian Bennett
Chairman, Breast and Endocrine Surgical Unit, Princess Alexandra Hospital.


Member, BreastScreen Qld State Accreditation Committee.

BreastScreenQueensland,TrainingCommitteeRepresentative. 1993 – current.


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

Dr Neil Wetzig
Chairman, Royal Australian College of Surgeons, Section of Endocrine Surgery.

RACS Representative, Quality Management Committee BreastScreen Queensland.

Co-Chairman, Royal Australian College of Surgeons SNAC Trial Management Committee.

Chairman, Queensland Co-operative Oncology Group Breast Group.

Executive Member, Queensland Co-operative Oncology Group.


Member, Ministerial Advisory Council on Cancer Control Queensland Health.
The Cardiology Department is a tertiary referral unit offering a comprehensive cardiac service including electrophysiology, invasive intervention and echocardiography. The Department consists of a Coronary Care Unit, a Procedure Ward, Cardiology Step-Down Ward, three Cardiac Catheter Laboratories, ECG Department, Echocardiography Department, Outpatient Clinics, Preadmission Clinics and Research Department. Supporting the medical officers are registered nurses, specialists in Cardiology Rehabilitation, Cardiac Resuscitation, PACing and Electrophysiology, Heart Failure and Cardiac Research, as well as Cardiac Scientists involved in echocardiography, pacemakers, ECG, holter recordings, exercise and pharmacological stress testing.

Funding has been received to provide a Cardiology Outreach Service to rural areas in the west and south of the district: Roma, Goondiwindi, Kingaroy and Cherberg. These visits will be staffed by Princess Alexandra Hospital cardiology personnel and will consist of a Cardiologist, Sonographer and Cardiac Nurse providing clinical services, staff and patient education. Each rural region will receive a visit from each of the cardiology specialties annually - heart failure, resuscitation, cardiology and electrophysiology. The Department also offers ‘Introduction to Cardiology Nursing Workshops’ covering the Acute Coronary Syndrome and related care and ‘Cardiac Critical Care Nursing Workshops’ covering myocardial infarction, acute heart failure and pacemakers conducted by the nursing and medical staff of Princess Alexandra Hospital Cardiology. In all, thirty-eight nurses from the Princess Alexandra Hospital, Redlands, Logan and Toowoomba Hospitals attended.

The broad expertise of the Department has over the past sixteen years secured many clinical trials from a variety of pharmaceutical companies, the National Health and Medical Research Council, the National Institutes of Health and investigator-driven research. A new multicentre electrophysiological clinical trial will begin in 2007 with Dr Gerald Kaye as Study Chair and Professor Tom Marwick as Echocardiography Laboratory Core Chair. Collaboration between the Cardiac Surgery Department and the Cardiology Department has initiated many advances in the practice of cardiology at Princess Alexandra Hospital.

### Staff

**Dr Paul Garrahy,**
MBBS (Hons), FRACP, Director

**Professor Tom Marwick,**
MBBS (HONS), PhD, FRACP, FACC, FESC, Professor of Medicine, UQ

**Dr John Hill,**
MBBS, FRACP, DDU, Director of Cardiac Pacing and Electrophysiology

**Associate Professor Gerald Kaye,**
MBChB, MD, FRCP (UK), Cardiologist

**Dr Richard Lim,**
BS, MD, MPhil, FRCP (London), FACC, FESC, Senior Cardiologist

**Dr Sudhir Wahi,**
MBBS, MD, FRACP, Cardiologist

**Cindy Hall,**
BSc, MSc (Hons) Clinical Physiology, RN, Manager Clinical Research Coordinator

**Clem Lee,**
B.Nurs, RN, Clinical Research Officer

**Tom Christensen,**
B.Nurs, RN, Clinical Research Officer

**Natalie Gerns,**
B. Nurs, RN

**Desiree Gifford,**
EN

**Fiona McCosker,**
RN, Coronary Care

**Robyn Peters,**
RN, Heart Failure

**Rosemary Robinson,**
RN, Cardiac Rehabilitation

**Visiting Medical Officers**

**Dr Robert Fathi,**
MBBS, FRACP, Visiting Cardiology Interventionalist

**Dr Stephen Cox,**
MBBS, FRACP, Visiting Cardiology Interventionalist

**Dr Jeffrey Franco,**
MD, Visiting Cardiology Interventionalist

**Dr Paul Garrahy and Team**
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 clinical trials are implemented in their entirety as well as being able to participate in substudies utilising specific diagnostic tools.

Research areas include coronary artery disease, cardiac arrhythmias, cardiac devices, acute and chronic and systolic and diastolic heart failure, coronary angiography and percutaneous transluminal coronary angioplasty, cardiac echocardiography, cardiac magnetic resonance imaging and cardiac surgery. Implementation of Good Clinical Research Practice is paramount in all the clinical research undertaken by the Department.

Current Research Activities

Clinical Trials

Registry of acute coronary syndrome patients (Sanofi-Aventis). Dr Paul Garrahy, Principal Investigator.

Atrial fibrillation (Sanofi-Aventis and Bristol Meyers Squibb). Dr Paul Garrahy, Principal Investigator.

Stable coronary artery disease and left ventricular systolic dysfunction. (Servier). Professor Tom Marwick, Principal Investigator.

Anterior/lateral myocardial infarctions randomised to CPR or home automatic defibrillators (National Institutes of Health). Professor Tom Marwick, Principal Investigator.

Heart Failure with diastolic dysfunction (Bristol Meyers Squibb), Professor Tom Marwick, Principal Investigator.

Myocardial infarction with occluded coronary artery > 3 days old (National Institutes of Health). Dr Paul Garrahy, Principal Investigator.

Novel thienopyridine vs clopidogrel in acute coronary syndrome undergoing a percutaneous transluminal coronary angioplasty (Eli Lilly and Quintiles). Dr Paul Garrahy, Principal Investigator.

Comparison of new drug-eluting stent vs TAXUS™ Express2™ Paclitaxel-Eluting Coronary Stent System in de novo coronary artery lesions (Abbott Laboratories). Dr Paul Garrahy, Principal Investigator.

Publications

6 journal articles
3 articles in press

Associate Professor Gerald Kaye

Pacemaker optimisation in heart failure. Medtronic symposium on devices in heart failure. April, Gold Coast.

Cindy Hall

Staff Retention, Cardiac Society of Australia and New Zealand Annual Scientific Meeting (invited speaker).

Strategies for Performing and Maintaining Excellence in a Large Clinical Trial Unit, 14th International Seminar on Global Clinical Trial Management and Logistics, Melbourne (invited speaker).

Fiona McCosker

Comparison of complications in percutaneous coronary intervention patients mobilised at 6, 4 and 3 hours following femoral arteria; sheath removal. Cardiac Society of Australia and New Zealand Annual Scientific Meeting (Poster Presentation).

Robyn Peters

Clinical research and the Nurse Practitioner position. University of Queensland School of Nursing annual symposium.

Models of care and setting up a heart failure program. Statewide Heart Failure Hospital to Home workshops.

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.

Associate Professor Gerald Kaye

Literature Review Panel, European Journal of Heart Failure.
Dr Richard Lim
Member, Princess Alexandra Hospital Human Research Ethics Committee.
Reviewer, Annual Scientific Mtg, Cardiac Society of Australia & New Zealand.
Reviewer, International Journal of Cardiology.
Faculty Member, China Interventional Therapeutics / Transcatheter Cardiovascular Therapeutics Meeting, Beijing, April.

Cindy Hall
Executive Member, Cardiac Nurses Working Group, The Cardiac Society of Australia and New Zealand.
Study Coordinator Advisory Board Member, Association of Regulatory and Clinical Scientists.
Member, Queensland Health Annual Scientific Steering Committee.
Studies undertaken by the Cardiac Surgery Department of patients with endocarditis progressed well during the year. The study on examination of the economic costs of treating endocarditis is nearing completion.

### Current Research Activities

#### Clinical Trials

The Department collaborated with the Department of Cardiology and the Department of Intensive Care in a number of trials including:

- Latent left ventricular dysfunction in patients with asymptomatic mitral regurgitation. Dr S Wahi.
- Assessment of the effect of oral fish oil supplements on postoperative atrial fibrillation and heart rate variability. Associate Professor K Kostner and Professor D Colquhoun.
- Use of echocardiography of left ventricular preload during anaesthesia and ventilation. Dr D Sturgess.

#### Other Research

Dr Peters has received a grant from the Gallipoli Research Foundation to study the role of alpha B Crystallin as a biomarker of prognosis in lung cancer.

### Publications

4 journal articles

### Public Service Relevant to Research

**Dr Peters**

Reviewer, Journal Clinical & Experimental Physiology & Pharmacology.

**Dr Mundy**

Reviewer, Journal Heart, Lung and Circulation.
Cardiovascular Imaging Research Group

The Cardiovascular Imaging Research Group continues to provide 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 Cardiology Department and image processing area in the University of Queensland, Department of Medicine.

Resources include data acquisition with four research echo/vascular ultrasound machines (including two 3-dimensional echo systems), equipment for exercise and pharmacologic stress testing and VO2 analysis. Some of these devices carry developmental software that is being developed in tandem with industry partners. The Group has 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.

There are postgraduate students and staff from Australia and overseas. The Group offers research opportunities for Cardiology trainees (MPhil or PhD), 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 activities should be directed to Professor Tom Marwick by email tmarwick@soms.uq.edu.au or visit http://www.soms.uq.edu.au/cig/.

Staff

Professor Tom Marwick, 
MBBS, PhD, FRACP, FACC, FESC
Associate Professor Karam Kostner, 
MD, PhD
Dr Sudhir Wahi, 
MD, FRACP
Dr James Sharman, 
PhD, NHMRC Post-doctoral fellow
Sonographers
Brian Haluska, 
MSc, RDMS, Senior Research Officer
Rodel Leano, 
BSc, Research Officer
Carly Jenkins, 
MSc, Research Officer
Leanne Jeffriess (Short), 
MSc, Research Officer
Joseph Brown, 
BSc, Research Assistant and database supervisor
Research Nurses
Helen Branagan, 
RN
Melody Downey, 
RN, BNS
Azette Rafei, 
RN, BN, MPH
Diane Carey, 
RN, Ad Dip N
Valda Cross, 
RN
Rowena Braaksma, 
RN

Professor Tom Marwick and Team
Current Research Activities

Clinical Trials
Clinical Centres of Research Excellence in Cardiovascular and Metabolic Disease – studies of cardiovascular effects of lifestyle and specific therapies for diabetes, hypertension, renal failure and obesity.

A study of strategies to identify and manage cardiac risk at noncardiac surgery. STRATIFY study.

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.

Raised LV filling pressure and hypertensive response to exercise – a study of echocardiographic and biochemical responses to anti-fibrotic therapy in LVH.

ONTARGET study and magnetic resonance imaging substudy co-investigator. 2002 Boehringer-Ingelheim.


Other 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 cardiomyopathy of diabetes and obesity, pre-clinical changes consistent with fibrosis in hypertensive patients, and evidence of ischemia. 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.

Quantification of echo techniques for detection of myocardial ischemia, using tissue Doppler and speckle tracking techniques to measure myocardial strain and velocity.

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. Two large-scale interventional studies that examine factors influencing vascular function and thereby progression of atherosclerosis have been recently completed. This work interfaces with Dr Kostner’s 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.

Patents
“Apparatus and method for early detection of Cardiovascular Disease using Vascular Imaging” Provisional patent 2003904100. Submitted for national registration in USA, EU and Japan.

Financial Support

Current NHMRC Grants
$400,000 National Health and Medical Research Council of Australia. Clinical Centre in Research Excellence. (Marwick TH, Prins, Johnson, Beller, Stowasser, Coombes).


$120,000 National Health and Medical Research Council of Australia. Efficacy and mechanisms of exercise training in diastolic heart failure. (Marwick TH, Hare, Prior, Haluska).

Other Grants
$60,000 National Heart Foundation of Australia. Impact of perhexilene in viable myocardium. (Marwick TH).

$50,000 National Heart Foundation of Australia. Echo substudy of the IDEAL trial. (Marwick TH).

$45,000 National Institutes of Health. HAT study. (Study group) (Marwick TH).

$17,000 RBH Foundation. TARGET LDL. (Hoenig M, Kostner K, Scott I, Atherton J, Parsonage W).

$60,000 Pfizer. Illuminate study. (Kostner KM).

$10,000 PA Foundation. The continued administration of Atorvastatin in critically patients with sepsis. (Kruger P, Kostner K, Venkatesh B).

$6,000 Astra Zeneca. UNIVERSE study. (Study group) Marwick TH.
$10,000 Bristol-Myers Squibb. I-PRESERVE study. (Study group) Marwick TH.

$33,000 Boehringer-Ingelheim. ONTARGET study and MRI substudy. (Study group) Marwick TH.

$49,000 Acusphere. Acusphere. (Study group) Marwick TH.

$29,558 University of Queensland. Contribution of Blood Viscosity to Large Artery and Myocardial Function. (Sharman JE, Marwick TH).

Other Support
$27,000 Pfizer. Gemini study. (Kostner KM).

$30,000 Pfizer. FH- Torcetrapib. (Kostner KM).


Publications
31 journal articles
28 abstracts
8 book chapters
15 articles in press

Lectures and Presentations
“Clinical feasibility and benefits of live 3D echo”; “Live 3D echo application for heart failure management” (Invited speaker). Indian Academy of Echocardiography, Bangalore, February.


“Recent advances in echocardiography” (Keynote lecture). “Advances in stress echocardiography” (Invited speaker); “Quantitative echo techniques in the diagnosis of heart failure” (Fireside session). Japan Circulation Society, Nagoya, Japan, March.

“Diastolic heart failure – Epidemic or Myth”. (Invited speaker) National Heart Foundation Scientific meeting, Sydney, March.

Queensland Cardiology Research Symposium (Organizer), Gold Coast, April.

“Stress echocardiography – Training or technology”; “New Echocardiographic Techniques for the assessment of heart failure” (Invited speaker), Japanese Society of Echocardiography, Saitama, Japan, April.

Advanced Echo Symposium (Organizer), Sydney, April.


“Cardiac screening – Is it ever justified” (Invited speaker). Controversies in Cardiology weekend, Gold Coast, May.

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


“Drug treatment for subclinical disease”; “Risks of noncardiac surgery” (Invited speaker); “Beta blockers for cardiac risk management during noncardiac surgery” Session moderator. World Congress/European Society of Cardiology, Barcelona, September.

“Use of atherosclerosis imaging to individualize risk assessment and optimize primary prevention” (Invited speaker). Australian Atherosclerosis Society, Gold Coast, October.


“Clinical practice – Cardiac Care” (Moderator), “Relevance of clinical trials” (Clinical trials workshop), 6th Annual Health and Medical Research Conference of Queensland, Brisbane, November.


Moderator, Contrast Echocardiography – Global Council meeting. Bristol Myers Squibb, Prague, December.

Post Graduate Students
Dr Dhrubo Rakhit, PhD, awarded
Dr Stuart Moir, PhD, submitted (decision pending)
Dr Chiew Wong, PhD, submitted (decision pending)
Dr Graham Stephenson, PhD (co-super), submitted (decision pending)
Dr David Sturgess, PhD (co-super), in progress
Dr Carolyn van Eps, PhD (co-super), in progress
Dr Lizelle Hanekom, PhD, in progress
Dr Jonathan Chan, PhD, in progress
Dr Brian Haluska, PhD, in progress
Dr Nghi Mai, PhD, in progress
Dr James Hare, PhD, in progress

**Awards**

**Professor Tom Marwick,**
RT Hall Award, 2006

**Dr James Sharman,**
National Health and Medical Research Council Fellowship, 2006-2009

**Dr Lizelle Hanekom,**
National Health and Medical Research Council Scholarship, 2004-2006

**Dr Stuart Moir,**
National Health and Medical Research Council Scholarship, 2005-2006

**Dr Chiew Wong,**
National Health and Medical Research Council Scholarship, 2005-2006

**Dr Jonathan Chan,**
National Health and Medical Research Council Scholarship, 2005-2007

**Public Service Relevant to Research**

**Professor Tom Marwick**
*Grant/Promotions Reviewer*
National Health and Medical Research Council, Grant Reviewer
Chair, National Heart Foundation Research Committee

**Committees**
Scientific Committee, Cardiac Society of Australia and New Zealand
Echo guidelines committee, Cardiac Society of Australia and New Zealand
Chair, Research committee, National Heart Foundation
Cardiovascular Health Advisory group, National Heart Foundation
Medicare Services Advisory Committee, Department of Health and Aged Care
Cardiac Imaging group, Department of Health and Aged Care

**Dr David Sturgess**
Health Sciences Faculty Research Committee

**Dr Lizelle Hanekom**
*Editorial reviewer*
Annals of Internal Medicine
American Journal of Cardiology
American Journal of Medicine
American Heart Journal, Editorial Board
Heart, Editorial Board
Circulation
European Heart Journal
European Journal of Echocardiography, Editorial Board
Journal of the American College of Cardiology, Editorial Board, Elite reviewer
Journal of the American Medical Association
Journal of the American Society of Echocardiography, Editorial Board
Internal Medicine Journal
Korean Journal of Cardiovascular Disease Editorial Board
Annual Scientific Sessions Reviewer
American College of Cardiology
American Heart Association
American Society of Echocardiography
American Heart Association
Cardiac Society of Australia and New Zealand
European Society of Cardiology

**Associate Professor Karam Kostner**
*Grant/promotions Reviewer*
National Health and Medical Research Council, Grant Reviewer

**Committees**
Chair, Scientific Committee, German Clinical Lipidology Society 2003
Scientific Organizing Committee, German Clinical Lipidology Society 2004
Scientific Organizing Committee, World Congress Clinical Nutrition, Brisbane, 2004
Austrian Society Cardiology, founding and nucleus member of section: Atherosclerosis Thrombosis and Vascular Biology
Editorial Reviewer
Eur J Clin Investigation Editorial Board
Atherosclerosis
Atherosclerosis Thrombosis Vascular Biology
European Heart Journal
Journal of Lipid Research
Clin Chim Acta
Heart
Lipids
Journal of Lipid Research
Austrian Journal of Cardiology Editorial Board

Annual Scientific Sessions Reviewer
European Society of Cardiology
German Society Clin Lipidology
World Congress Clinical Nutrition
This has been a year of major achievements for the Centre for Immunology and Cancer Research, notably the release of the world’s first cervical cancer vaccine developed by Professor Ian Frazer and his team. Professor Frazer has received numerous accolades for this work, including the prestigious Australian of the Year Award for 2006, the CSIRO Eureka Prize for Leadership in Science 2005 and the internationally-respected William B. Coley Award for Distinguished Research in Tumour Immunology for 2006 from the Cancer Research Institute in the US.

Professor Frazer was awarded the inaugural $1.25 Million Smart State Premier’s Fellowship for 2006 which will help continue his immunotherapeutic research. Other members of the Centre also did exceptionally well with funding. These include Professor Gonda and Dr Gabrielli in collaboration with Dr Grimmond (IMB, UQ) and Dr Barry (University of Adelaide) who obtained over $3 Million in funding from the National Health and Medical Research Council and Australian Research Council to establish an automated arrayed retroviral expression platform for functional disease gene discovery and Professor Kendall who was appointed jointly to the Centre for Immunology and Cancer Research and the Australian Institute for Bioengineering and Nanotechnology this year and won a competitive three year Queensland Government Smart State Senior Fellowship ($300,000) to continue his work pioneering nanotechnology to deliver drugs accurately.

This year signals the end of the Centre and the beginning of a new University Institute in 2007. The Centre for Immunology and Cancer Research and the Centre for Diabetes and Endocrinology Research will merge to form the Diamantina Institute for Cancer, Immunology and Metabolic Medicine. The Institute will hopefully be housed in a new research building in the near future. (http://www.cicr.uq.edu.au/)
Dr Saparna Pai,
Research Officer

Dr Sebastien Bertin-Maghit,
Research Officer

Linda Bradbury,
Research nurse, Senior Research Assistant

Dr Kerri Clark,
Research Assistant

Emily Duggan,
Research Assistant

Anita Gibson,
Research Assistant

Claire Hyde,
Research Assistant

Craig Moore,
Research Assistant

Angus Thompson,
Research Assistant

Caroline Sturm,
Compliance Research Assistant

Matthew Harrison,
Compliance Research Assistant

Dr Jennifer Ng,
Casual Research Nurse

Current Research Activities

Immunotherapy Group

A Phase 1b multicentre study of CICRVax6 HPV 6L1 VLPs as therapy for genital warts.

A Phase 1b multicentre study of CICRVax6 HPV 6L1 VLPs as therapy for recurrent respiratory papillomatosis.

Dendritic Cell Biology Group

A Phase I clinical trial of autologous modified dendritic cells exposed to citrullinated peptides (Rheumavax) to induce antigen specific tolerance in patients with rheumatoid arthritis (in preparation).

Molecular Virology Group

Valproic acid and cytarabine therapy for elderly or relapsed acute myeloid leukaemia.

Epithelial Pathobiology Group in conjunction with the Princess Alexandra Hospital Cancer Collaborative Group

Clinical trial of valproate + cytarabine in elderly patients with AML (ongoing). This project is funded by a recent grant from the Queensland Leukaemia Foundation.

Clinical trial of Valproate in advanced head and neck squamous cell carcinoma (ongoing).

Use of microarrays to predict clinical response in patients with osteosarcoma (ongoing). This project is funded by the Wesley Research Institute.

Nanotechnology Group

Influenza clinical trial using gene guns conducted by PowerMed stemming from Professor Kendall’s listed patents and research.

Other Research

Immunotherapy Group

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.

Musculoskeletal Genetics Group

Genomewide association mapping in AS. The Group is part of the Wellcome Trust Case-Control Consortium (http://ccc.sanger.ac.uk/). This study will initially investigate 15,000 non-synonymous and MHC tagging SNPs in 1000 AS cases and 1500 controls, giving unprecedented data regarding genetic influences on AS-susceptibility and severity.

The Group is leading the genetics arm of an international study, the ‘Australo-Anglo-American Spondyloarthritis Consortium’, and is performing a genomewide association study in AS involving approximately 3 billion genotypes. All genotyping is being performed in the laboratory at the Centre for Immunology and Cancer Research.

IL-1 genetics. The confirmed identification of the IL-1 gene complex as a major contributor to AS-susceptibility is arguably the most exciting finding in AS pathogenesis since the report of the association of HLA-B27. Further research by the Group in this area includes both genetic and functional studies into the role of
IL-1 variants in AS.

The Group is coordinating an international prospective meta-analysis of IL-1 genetic variants as part of the International Genetics of Ankylosing Spondylitis Consortium, and pursuing further mapping in ethnically diverse populations to pinpoint the true disease-associated variants.

The Group is using mouse models of AS to investigate genes involved in human AS, starting with the IL-1 gene cluster.

**Cell Cycle Biology 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 Oncogenesis Group**

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

Role of Myb in estrogen 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)).

Role of NF-κB in myeloid proliferation and differentiation.

**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.

**Dendritic Cell Biology Group**

Induction of antigen-specific tolerance through inhibition of RelB function in dendritic cells.

Role of RelB in pathogenesis of autoimmunity.

Particulate systems for the co-delivery of antigen with immunomodulator for the treatment of autoimmune disease.

Atherosclerotic disease in early rheumatoid arthritis.

Pathogenesis of type 1 diabetes.

**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; and to exploit this knowledge in the development of novel therapeutic strategies. Projects include:

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.
Molecular Virology
Dr Nigel McMillan,
Senior Research Fellow, BSc (Hons), PhD
University of Otago, NZ (Group Head)
Dr Wenyi Gu,
Research Officer
Dr Annika Antonsson,
Research Officer
Dr Jiezhong (Jason) Chen,
Research Officer
Associate Professor Surong Sun,
Visiting Scholar
Rachel Murphy,
Compliance Research Assistant
Melinda Burgess,
Research Assistant, Cancer
Collaborative Group program
Ning Huang,
Research Assistant
Denise McMillan,
Research Assistant
Epithelial Pathobiology
Associate Professor Nicholas A
Saunders,
BSc (Hons), PhD University of Western
Australia (Group Head)
Dr Liliana Endo-Munoz,
Postdoctoral Fellow
Dr Rafael Erlich,
Postdoctoral Fellow
Dr Claudia Popa,
Postdoctoral Fellow
Dr Jennifer Walshe,
Senior Research Officer
Alison L Dahler,
Compliance Research Assistant
Danny Rickwood,
Research Assistant
Ngari Teakle,
Research Assistant
Dr Zoulika Kherrouche,
Visiting Research Fellow
Dr Alexander Guminski,
Senior Research Fellow (Adjunct appointment)

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.

Nanotechnology
Building and recruiting a new research group for nanotechnology.
In vivo multi-photon microscopy imaging.
Key fabrication and preclinical milestones hit for micro-nanoprojection patch
project.

Patents
Modified Papilloma Virus L2 Protein and VLPs Formed Therefrom.
Papilloma Virus Vaccine.
Papillomavirus Polyprotein Constructs.
Recombinant Papilloma Virus L1.
Subunit Papilloma Virus Vaccine and Peptides for Use Therein.
Variants of Human Papillomavirus Antigen.
Nucleic acid sequence & method for selectively expressing a protein in a target cell
or tissue.
Treatment of papillomavirus infections.
Polynucleotide and method for selectively expressing a protein in a target cell or
tissue of a plant.
Method and polynucleotides for determining translational efficiency of a Codon.
A method for nucleic acid sequence analysis.
Novel compositions and uses therefor.
Expression system.
A Method for Optimising Gene Expression.
Immunomodulating compositions and uses therefor.
Immunomodulating compositions, processes for their production and uses
therefore.
Diagnostic agents and uses thereof. (Provisional).
Compositions and methods for modulating immune responses. (Provisional).
Delivery device for delivering bioactive material or other stimulus to internal site
in body, has solid projections that can penetrate body surface to deliver bioactive
material or stimulus to required site and that has delivery end section. (Kendall M).
Evaluation of delivery of particles by needleless injection device in human or animal
tissue, comprises imaging target site using multi-photon microscopy after particle
delivery. (Kendall MAF, Mulholland WJ).
Needleless syringe has silencer with effective venting area whose mass flow rate of
gas is equal to or greater than corresponding flow of gas in effective bleed-hole area.
Needleless syringe, useful for transdermal delivery of drug, vaccine, diagnostic agent, comprises macroprojectile which is injection molded in plastic material. (Kendall MAF, Carter FV).

Particle delivery apparatus for delivering powdered drug compounds to the skin, comprises combination of needleless syringe and particle velocity reducing device selectively deployable in the syringe. (Bellhouse BJ, Kendall MAF, Quinlan NJ).

Particles dosage accelerating method for needleless syringe, involves producing primary shock wave travelling in downstream direction in duct, establishing quasi steady flow of fluid and accelerating particles. (Kendall MAF, Brown G).

**Financial Support**

Professor Mark Kendall has gained substantial funding in 2006 but it is administered by the Australian Institute for Bioengineering and Nanotechnology and therefore not included in this financial summary.

**Current NHMRC Grants**

- $100,000. The role of CD4+ T cells in the tumour killing by CD8+ memory T Cells. Project (Germain Fernando).
- $87,000. Matching between Codon usage and tRNA abundance determines the expression of targeting genes in mammalian cells. Fellowship (Kong-nan Zhao).
- $103,500. Research Fellowship (Brian Gabrielli).
- $656,993. Immunological therapies for cancer and autoimmunity Program (Ian Frazer, CICR staff, Geoff Hill).
- $30,600. Medical Postgraduate scholarship-Optimising immunotherapy for chronic viral infection. Scholarships (Jennifer Broom).
- $35,000. Determining the role of Rel/NF-kB Transcription Factors in Myeloid (Kendall MAF).
Differentiation. Project (Thomas Gonda, Steve Gerondakis).


**Other Grants**

$150,000. Arthritis Foundation Australia. (Ranjeny Thomas).

$115,000. ARC. Function of the unique mitotic form of MEK. Project (Brian Gabrielli, John Hancock).

$165,000. GPRWMF. Developing E2F inhibitors as a potential therapeutic strategy for the treatment of head and neck squamous cell carcinoma. Fellowship (Nicholas Saunders).

$65,000. LIONS. Improving vaccines against Viruses and Tumours: Optimising the cytotoxic T lymphocyte response. Fellowship (Graham Leggatt).

$150,000. PAH Cancer Collaborative Group: QCF Collaborative research grants funds. Project (Nicholas Saunders).

$167,588. CRIUSA. A phase IB trial of virus like particle immunotherapy for HPV associated infection. Project (Ian Frazer).

$68,000. LIONS. Targeting Cell Cycle Checkpoints to treat Cancer Fellowship (Heather Beamish).


$73,700. QCFN. The role of NKT and CD8 cells in tumour immunotherapy using epithelial tumour models. Project (Graham Leggatt, Ian Frazer).

$73,700. QCFN. Optimising immunotherapy in tumour antigen experienced host. Project (Graham Leggatt, Ian Frazer).

$5,952. UQ. Expression and function of the Tumour Suppressor KLF6 in Prostate and Breast Cancer. Project (Dennis Dowhan).

$156,961. WELLAU. Study of HPV 6L1 virus like particles as therapeutic vaccine for genital warts and recurrent respiratory papillomatosis. Project (Ian Frazer, Jieqiang Lu, Bobei Chen, Lifang Zhong).


$88,000. ARC. Function and regulation of the Schlafen gene family: novel regulators of blood cell proliferation and function. Project (Thomas Gonda, Shunsuke Ishii).

$16,000. ARHR. The protective effect of G82S RAGE on cardiovascular events in rheumatoid arthritis. Project (Ranjeny Thomas, Yueh Sheng Chen).

$15,000. ARTHFA. The Role of AIF1 in Rheumatoid Arthritis. Project (Matthew Brown).

$50,000. ARTHFA. Arthritis Foundation Australia (Queensland). (Ranjeny Thomas).

$15,000. EDMRF. The role of human papillomavirus in the development of prostate
cancer. Project (Annika Antonsson).

$15,000. GSK. Australia postgrad support grant-Congress of Immunology Conference attendance. (Jennifer Broom).

$219,785. JDFINT. Interleukin 1 and tolerance in type 1 diabetes. Project (Ranjeny Thomas).

$50,000. PAH Gene expression studies in inflammatory arthritis. Project (Matthew Brown).

$10,000. PAH In Search of Cancer Stem Cells. Project (Nigel McMillan).

$25,000. PAH Immunology Programme. Program (Ranjeny Thomas, Ian Frazer).

$100,000. PCFA The role of human papillomaviruses in the development of prostate cancer. Fellowship (Annika Antonsson).

$75,000. QCFN Molecular mechanisms of regulatory expression of human papillomavirus L1 genes in keratinocytes. Project (Kong-nan Zhao).

$75,000. QCFN The molecular basis for the initiation of squamous differentiation. Project (Nicholas Saunders).

$75,000. QCFN Role, and potential for therapeutic targeting, of transcriptional co-regulators in transformation by the MYB oncogene. Project (Thomas Gonda).

$14,400. UNIQUEST Pathfinder funding-FROG-1-a novel approach to elevate bone formation in skeletal disease. Project (Gethin Thomas).

$25,000. UNIQUEST IL-10 inhibitors. Project (Ian Frazer).

$130,000. UQ Three and four dimensional Fluorescent microscope Facility. Equipment (Brian Gabrielli, Ranjeny Thomas, Tom Gonda, Jon Whitehead, Edith Gardiner).

$30,000. UQ How CAPER-alpha and CAPER-beta function to regulate transcription and RNA processing. Project (Dennis Dowhan).

$200,000. UQ Microarray and Gene-expression Analysis Facility. Equipment (Matthew Brown).

$165,000. UQ Enhanced flow cytometry facilities for the Princess Alexandra Hospital Research Campus. Equipment (Ranjeny Thomas, Ian Frazer, Matt Brown, Tom Gonda, Nick Saunders).

**Publications**

47 journal articles
5 abstracts
4 book chapters
4 articles in press

**Lectures and Presentations**

**Professor Ian Frazer**

Talk for Ron Jones, February, New Zealand.

19th International Symposium, February, Tokyo.

Talk on the HPV vaccine, Women’s Health Conference, February, Gold Coast.


Examining the new Cervical Cancer vaccine breakthrough, AFR’s 8th Annual Health Congress, March, Sydney.

“Harnessing the Immune system to control cervical cancer”, Biotech March, Pune, India.

India - Hyderabad, Biotech, Lecture, March, India.

Talk about Leadership, Payne Road State School, March, Brisbane.

“Immunology of allergy, School of Medicine”, March, Brisbane.

Talk about research and career path, Undergraduate Science Students, March.


HPV Vaccine development, WHSHC, March, Sydney.

After dinner speaker around the theme of “Finding a better way”, Annual Health Leaders Dinner, April, Sydney.

“Talk about how you saw an opportunity and worked through it to make a medical breakthrough,” GSK award for excellence 2006, April, Sydney.


Ironside School, Breakfast meeting/talk, April, Brisbane.

The challenge of being an Australian Citizen Medico-Legal Society of Queensland, April.

Talk about how Lions have assisted in conducting the important research and work into developing a vaccine for cervical cancer leading to achievement of AOV, The Lions Club of Daisy Hill, After Dinner speaker – April, Brisbane.

“HPV Vaccine”, GP Paediatrics Update, April, Brisbane.

“Being a good Australian in the 21st Century”, Address to the Press Club, April, Brisbane.

“Vaccines to prevent and to treat HPV infection and cervical cancer”, 5th Discovery Science and Biotechnology meeting, Special Plenary – Australian of the Year May, Melbourne.
AAS Dinner address, After Dinner Address May, Canberra.

“Future of Cancer Therapy”, HOTT Conference, Closing Keynote Speaker, May, Melbourne.

GHD, Inspirational Breakfast talk, May, Brisbane.

Immunology Lecture, May, School of Medicine.

“Australia as a knowledge based economy: earning social credit and a positive balance of trade in the 21st Century global village” Keynote address, Future Summit 2006, May, Brisbane.

JDRF, Kids in the house luncheon, May.

Keynote presentation “Quality and leadership – what it means and why it is important” May, Hobart.

Fundraisers Talk to fundraisers at Cocktail party, ACRF, May.

“The HPV vaccine story”; Ausbiotech Conference, May, Gold Coast.

May, Lions Gold Coast Convention.

“What it means to be Australian, leadership, community and medical research” Lilliana Munoz School, May, Brisbane.

Presentation to Advisory Group of Gardasil Advisory Board, After dinner talk, May, Sydney.

“Where we are at as a nation, what role we can play in Australia’s future, and why we should “Celebrate what’s great” about Australia” Corporate Breakfast for Australia Day Council of NSW, May, Sydney.

Talk on Papillomaviruses and Cancer, May, Brisbane, School of Molecular & Microbial Sciences.

Talk about the importance of research in Australia with specific mention of funds in this area, Australian Palliative Care Fund, May.

“Work, life and leadership journey, NRSC Leadership Alliance Forum, May, Brisbane.

May, Presentation to Senate.

“The Development of an HPV Vaccine to prevent Cervical Cancer”, Oncology Meeting, After Dinner talk May, Melbourne.

“Defining correlates of immunity for HPV”, Australian Vaccines Immunotherapeutics Development meeting, May, Melbourne.

Breakfast for Rotary Club, Talk about experiences of being Australian of the year and also discuss research, June, Brisbane.

“What we need for a healthy Biotechnology Industry”, AICD Members Evening, May.

“What will Life Science products be like in the year 2030”, 2030 S2F Space Odyssey, June, Noosa.

‘Harnessing the Immune system to control Cervical Cancer”, May, ASMR XVth Annual Scientific Meeting.


June, Vaccine Development.

“Preventing Cancer in the 21st Century: it’s largely in our control, One day Lecture Series at GTAC, June, Melbourne,

Presentation on HPV work, Health professionals Forum, June, Adelaide.

Ferny Grove High School, Address Year 12 students June, Brisbane.

“Immune response and long term protection with quadrivalent HPV vaccine: what we know now and what we will know later”, MSD/SPMSD symposium at the International Congress on Infectious Diseases, June, Portugal.


AOY Roadshow, Talk with year 10-12 students, June, Launceston.

PA Foundation function, Luncheon address, June, Brisbane.

Annual fundraising event for Redcliffe Hospital Foundation, Talk about research, June, Redcliffe.

CRI New York Award Ceremony, Keynote Talk, June, New York.

National Association of Australian University College Conference, Lecture, July, Brisbane.

Zonta Service Club, Talk on research and its implications, July, Brisbane.


Scots Australian Council Annual Dinner, Reflections of a Scot on the idiosyncrasies of Australian life and Scottish medical research versus Australian medical research, July, Sydney.

“How can a Scientist survive in academia in the current economic climate”, Herdsa Conference, Keynote July, Perth.


Australian of the Year Roadshow, July, Alice Springs.

Motivation/passion that leads to the most important area of research and on life since becoming AOY, Hilda des Artes Footprints Awards, July, Ipswich.
The Gap Chamber of Commerce, Experiences of being Australian of the Year, July, Brisbane.


“How can we shift away from the short term, insular management to honour our long term responsibilities”, Earth Dialogues Conference, July.

“Leading the charge on Vaccine R&D”, Biotech Summit, Keynote Opening address July, Sydney.


Hotel Care Week, Talk about the importance of medical research, August, Sydney.

2nd Annual Twilight Science Evening, Science in Society Forum, August.

Progen Industries, Talk about the development of the vaccine, August, Brisbane.

Royal Flying Doctor Service – Gala Dinner and Dance, Guest Speaker, August, Toowoomba.

Ferny Grove State School, Student of the Month Parade, August, Brisbane.

Kenmore Probus Club, Ian’s work and experiences in his field of Medical research, August, Brisbane.

Lecture, University of Sunshine Coast, August, Sunshine Coast.

“Beyond research” GAIN Cocktail Party, August, Perth.

Leadership panel discussion with West Coast Eagles coach, August, Perth, Daffodil Day launch breakfast.

“Using vaccines to prevent cervical cancer” Talk to GPs, August, Perth.


National Science Exhibition Week, Talk about the HPV vaccine + the importance of science and encouraging children, August, Brisbane.

Science Colloquium – press style dinner for Primary and Secondary teachers, Talk about research which lead to the vaccine’s development and new avenues of research, August.

Lecture and meet with Scientists at WEHI, Lecture, August, Melbourne.

Gardasil National Sales Conference, Keynote Speaker, August, Hayman Island.

Australia Museum – Eureka Awards Dinner, Announcement of Eureka Winner’s choice prize, August, Sydney.

Talk to students to stimulate their interest in science, Holland Park State School, August, Brisbane.

Dinner for UQ, After dinner speech, August.

“Hospital based basic and clinical research: asset or liability”, A Hospital, Kurt Aaron Oration, August, Brisbane.

Gardasil Launch Event, August, Sydney/Brisbane.

U3A Conference, Talk about cancer research and experiences of being Australian of the Year, August, Bundaberg.

Bundaberg East Rotary, Guest Speaker, August.

‘Human Papilloma virus vaccines in prevention of cervical cancer: Development and Future Role’, Western Diagnostic Pathology - General Practitioner Education Session, August, Darwin.

Accord Meeting, Opening Address, September, Sunshine Coast.

“Vaccines to help prevent cervical cancer – the good news and the challenges” Rotary Club of Jindalee, After Dinner speaker, September, Brisbane.

AOGIN Conference, Various, September, Cebu – Philippines.

Staff and Graduates Club, Inspirational talk about how the road to success was not always easy, September, Brisbane.

Health Leaders Dinner, Guest Speaker, September, Sydney.


“Preventing cervical cancer in the 21st century”, Mater Health Services GP Education Session, September, Brisbane.

“What we can do to reduce our risk of cancer”, Tom Fitzsimmon Memorial Lecture, Clairevaux Mackillop College, September, Brisbane.

Australian College of Health Services Executive, Breakfast talk, September, Brisbane.

“Celebrating successes in the public sector”, Queensland Regional Head Forum, September, Brisbane.

“Harnessing the immune system to prevent and to treat cancer”, HMRI Conference – Public lecture, September, Newcastle.
Public Forum on Stem Cell Research, Public Forum, September, Brisbane.

Health Leaders Dinner, After dinner speaker, September, Melbourne.

Internal GSK presentation, HPV vaccine, September, Melbourne.

RACP 49th Annual Scientific Conference, Dr William Arnold Connolly Oration, October, Brisbane.

Cervical Cancer prevention in the 21st century, Plenary Session, October, Brisbane.

Talk about what it is like being Australian of the Year, Lioness Forum – Q3 convention, Lions Dinner, Guests, October, Brisbane.

“Cancer prevention in the 21st century – where are we heading”, Nancy Millis Lecture, October, Melbourne.

“Closing the gap between Researchers and General Practitioners”, Sunshine Coast division of General Practice, Keynote speaker October, Sunshine Coast.


“Cancer Prevention – what is in store?” Frontier in Science October, Brisbane.

“Your journey to where you are today” CWS Rural Women’s Breakfast in aid of the rural crisis, October, Brisbane.

Justin O’Connor foundation – Cancer in the Bush, Guest, October, Canberra.

Australian of the Year Tour of Honour, Panel Discussion “Influencing life’s outcomes – turning ideas into actions”, October, Ipswich.

“God’s gift to women” Queensland Police Services – Inspirational Leadership Conference, October, Brisbane.

Burnett Oration, Burnett Institute, October, Melbourne.

Education session for Royal Australasian College of medical administrators, Talk about collaborations in research across states/areas, public/private and the impact of these on research on HPV and the vaccine, October, Brisbane.

“Can we call ourselves Doctors if we are not doing medical research?”, 65th National Scientific Congress of the Australian Society of Anaesthetists, Opening address, Kester Brown Lecture, October, Coolum.

Life Savers for Cancer Research charity Ball, Talk about 20 year journey researching cancer, October, Ballina.

“What goes wrong in autoimmunity”, Lecture for School of Medicine, October, Brisbane.

Overview of the development of the HPV vaccine, how the idea was conceived and the journey towards final outcome, Keynote address, Innovation Series 2006, October.

Presentation on serving others, October, Mansfield State High school prize giving.

Seminar at IMVS, Seminar, October, Adelaide.

ASI Retreat, October, Adelaide.

“Harnessing the immune system to prevent cancer”, Lecture at Royal Society of New South Wales, November, Sydney.

Sydney Cancer Centre 10 year celebration, 30 minute presentation, November, Sydney.

“The potential for the HPV vaccine to prevent cancer”, November, Sydney.

After dinner speech, November.

RANZCO, Occasional Address, November, Sydney.

James Cook University Medical Students Association, Talk about your medical training and then the basics of research and the vaccine, November, Townsville.

AMA Queensland Branch, Sandford Jackson Lecture (talk about Ian’s work and the recent breakthrough in cervical cancer treatment), November.

Australian Healthcare Association Congress, Ron Tindale Oration, November, Brisbane.

“What is necessary to grow a healthy biopharmaceutical industry in Australia”, AICD End of Year Dinner, November.


29th Annual Queensland Cancer Fund Oncology Nurses Group Conference, The Australian of the Year on Cancer Control and the future, November, Brisbane.

The commercialization journey of the HPV vaccine, funding issues facing Health/Medical Research and a call to action, Research Function, November.

Talk about plans to ensure that the cervical cancer vaccine will reach those women and girls living in poverty around the world, November, Zonta Club (Brisbane North).

“Gardasil and prevention of Cervical Cancer”, GP Breakfast session, November, Sydney.

“Why do we go to School”, Brisbane Grammar School – Annual speech night and prize giving ceremony, November, Brisbane.


Local Hepatologists, Talk about IM862 and the HCV trial, November, Brisbane.
PDN Leadership Breakfast and talk, Science Education – the key to informed application of research and technology in society, November, Brisbane.

Science Dinner for Sunshine Coast District, Guest Speaker, November.

“The HPV vaccine story – training, research, translation and practice”, 6th Health and Medical Research Conference, Keynote Speaker, November, Brisbane.

“Using the immune system to control infection associated cancer”, 1st Monash University Department of Biochemistry Research Conference, November, Melbourne.


“The future of cancer research in Australia”, COSA, Plenary Session November, Melbourne.

State School, Guest Speaker at Leadership Day.

Year 7 Graduation Ceremony for Patrick’s Road State School, Talk about the choices the students will face in life, November.

“What we can do to prevent Cancer”, Monthly BrisScience Talk, December, Brisbane.

“A few of our Favourite things” Exhibition – State Library, Talk about the “favourite things” that Ian has chosen, December, Brisbane.

“Researching the link between papilloma viruses and cancer”, Rotary Club, December.

UQ Medical School Graduation Dinner, Motivational Speech, December, Brisbane.

Professor Matthew Brown
‘Modern Management in Rheumatology’, National Update Conference for Rheumatologists, Kingscliff, NSW.

European Calcified Tissue Society, Prague.

Australian Rheumatology Association Annual Scientific Meeting, Perth.

Asia-Pacific League against Rheumatism (APLAR), Kuala Lumpur.

Brisbane Immunology Group Annual Scientific Meeting.

International Spondyloarthritis Congress, Ghent.

Australian and New Zealand Bone and Mineral Society/International Osteoporosis Foundation Annual Scientific Meeting, Cairns.

Genetics for Epidemiologist and Epidemiology for Geneticists Australian Workshop, Melbourne.

Dr Brian Gabrielli
6th Hunter Cell Biology Meeting, March.

AACR 97th Annual Meeting, Washington DC, USA, April.

Ludwig Institute for Cancer Research, Austin Hospital, Melbourne, May.

Hanson Cancer Institute/IMVS, Adelaide, May.

University of Utrecht, Netherlands, September.

St Vincent’s Institute for Medical Research, Melbourne, October.

Queensland Institute of Medical Research Cancer Program Seminar, November.

Professor Thomas Gonda
COMBIO, Brisbane, Queensland.

Lorne Cancer Conference, Lorne, Victoria.

Boden Conference on Epithelial Stem Cells and Cutaneous Regeneration, Stradbroke Island, Queensland.

Progen Industries Ltd, Brisbane, Queensland.

Queensland Institute of Medical Research, Brisbane, Queensland.

Queensland Brain Institute, University of Queensland, Brisbane, Queensland.

Sir Albert Sakzewski Centre for Virus Research, Brisbane, Queensland.

Princess Alexandra Hospital Cancer Collaborative Group.

Dr Nigel McMillan
New Directions in Leukaemia Research, Sunshine Coast.

RNAi 2006 – Boston (given by PhD student, Lisa Putral).

RNAi Europe.

Australia Health and Medical Research Conference,.

Johnson and Johnson, Sydney.

Griffith University, Gold Coast.

Aarhus University, Denmark.

University of Madison-Wisconsin, USA.

Professor Ranjeny Thomas
Cancer Institute seminar, Bangalore, India, January.

Queensland Institute of Medical Research Institute seminar, Brisbane, February.

James Cook University seminar, Townsville, May.

WA Institute of Medical Research seminar, Perth, October.
Associate Professor Nicholas Saunders
Development of therapies for the treatment of squamous cell carcinoma. Children's Cancer Institute, Sydney, May.


Molecular aspects of squamous cell carcinoma. 13th International Congress of Oral Pathology & Medicine, June, Brisbane. (Invited Speaker).


Engineering approaches in delivering genes and drugs to skin dendritic cells. 8th Annual MMRI Symposium, July, Brisbane, Australia.

Micro-nanoprojections on patches for targeted delivery of genes and drugs to the skin. Invited lecture. 2006 International Conference On Nanoscience and Nanotechnology, July, Brisbane, Qld, Australia.

Targeting skin cells with micro-nanoprojections on patches for immunotherapeutics. Invited lecture. AVID 2006. 1st Australian Vaccines and Immunotherapeutics Development Meeting, May.


Using micro-nanostructures for targeted gene and drug delivery to the skin. University of Pennsylvania School of Medicine, December.

Micro and nanostructures for delivering genes and drugs to skin cells: engineering meets biology. Australian Institute for Bioengineering and Nanotechnology, Inaugural Lecture, May.


Micro-nanostructures for the delivery of genes and drugs to epidermal cells. School of Pharmacy Seminar Program, University of Queensland, August.

Needle-free vaccines to skin with micro-nanostructures: engineering meets biology. Queensland Institute of Medical Research, Immunology Invited Lecture, October.

Using micro-nanostructures for targeted gene and drug delivery to the skin. School of Biomedical Sciences, The University of Queensland, August.

Using micro-nanostructures for targeted gene and drug delivery to the skin. University of Pennsylvania School of Medicine, December.

Professor Mark Kendall
Fluid mechanics considerations of gene and drug delivery to skin and immune responses in the body. Keynote Lecture, Fifth International Conference on Computational Fluid Dynamics in the Process Industries, December, Hilton on the Park, Melbourne, Victoria, Australia.


Post Graduate Students

Thomas Fothergill, PhD, completed
Daniel Clarke, PhD, in progress
Aaaron Irving, PhD, in progress
Lisa Putral, PhD, in progress
Shammal Narayan, PhD, in progress
Robyn Warrener, PhD, in progress
Fang Zhou, PhD, in progress
Lisa Carroll, Mphil, in progress
Rachel Dekluyver, PhD, in progress
Brent Neumann, PhD, in progress
Nichole Giles, PhD, in progress
Suad Hannawi, PhD, in progress
Dora Chan, PhD, in progress
DiWakar Pattabiraman, MPhil, in progress
Usir Ansyah, MSc, in progress
Nor Malia Abd Warif, PhD, in progress
Salvatore (Sam) Fiorenza, MBBS/PhD, in progress
Yueh Sheng Chen, PhD, in progress
Puji Astuti, PhD, commenced
Azad Rahinpour, PhD, commenced
Jennifer Broom, PhD, commenced
Vanessa Oakes, PhD, commenced
Alice McNally, PhD, commenced
Yvette Drabsch, PhD, commenced
Sarina Cameron, PhD, commenced
Kim Hanchard, PhD, commenced
Matthew Harrison, PhD, commenced
Norliana Khairrudin, PhD, commenced

Public Service Relevant to Research

Professor Ian Frazer
Chair, Program Grants Committee, National Health and Medical Research Council.
Member, Research Committee, National Health and Medical Research Council.
Board, Diabetes Vaccine Development Centre, National Health and Medical Research Council/JDRF.
Chair, Scientific Advisory Board, JDRF Islet Transplant Program.
Vice President, The Cancer Council Australia.
Editorial Board, Virology.
Editorial Board, Human Vaccines.

Professor Matthew Brown
Research Subcommittee, and Development Committee, of the Arthritis Research Campaign (UK).
National Health and Medical Research Council Review Panel.
Project grant genetics panel member.

Dr Brian Gabrielli
Member, Editorial Board for Molecular Cancer Therapeutics.
Member, NHMRC Oncology Grant Review Panel.
Member, Princess Alexandra Hospital Research Committee.
Member, CICR Board.

Professor Thomas Gonda
Member, National Health and Medical Research Council Cell Biology project grant review panel.
Expert (external) Member, National Health and Medical Research Council Program Grant Review Panel.
Symposium Co-convenor: New Directions in Leukaemia Research, (held April/May).

Dr Nigel McMillan
Institutional Biosafety Committee.
Reviewer for the following journals: Journal of Virology; Archives of Virology; Journal of Leukocyte Biology; Journal of Molecular Medicine; The International Journal of Biochemistry & Cell Biology; Breast Cancer Research; International Journal of Cancer; Expert Opinion on Investigational Drugs.
Grant reviewer for the following: National Health and Medical Research Council; Australian Research Council; Queensland Cancer Fund; Health Research Council of New Zealand; International Union Against Cancer; Research Grants Council of Hong Kong.
Organising Committee for the conference New Directions in Leukaemia Research 2006.

Professor Ranjeny Thomas
National Health and Medical Research Council Grant Review Panel.
Pfizer Fellowship panel.
PA Foundation assessment panel.
Journal Editorial team: Arthritis Research and Therapy.

Associate Professor Nicholas Saunders
2002-present, CICR representative on Faculty of Health Sciences Research Committee.
2003-present, Editorial Board, “Cancer Genomics and Proteomics”.
2005-present, Editorial Board Member, “Recent patent reviews on anti-cancer drug discovery”. Bentham science Publishing.

Professor Mark Kendall
Reviewer, Journal of Biomechanics.
Reviewer, Medical Journal of Australia.
Reviewer, Journal of Controlled Release.
Reviewer, Journal of Chemical Engineering Science.
Reviewer, Trends in Biotechnology.
Committee Member, AIBN early career fellowships.
Grant Reviewer, AIBN readership program.
Public lecture at the Brisbane Exhibition.
Television Children’s science program “Scope”, Channel 10 (National, December 4), and interview with “Channel 10 News” (National, April 12).

Newspaper articles in “The Australian” (October 5 and October 21), “The Courier Mail” (Brisbane, April 12).


Article in AusBiotech Magazine.
Articles in University of Queensland “Graduate Contact” (Summer, Autumn).
The Clinical Pharmacology Department continued to provide an improved routine tacrolimus monitoring service for the transplant centres throughout the State, with faster turnaround of results and increased numbers of tests. At the same time the Department has maintained an active research program. Numerous collaborations have been established as outlined below, including a collaborative research agreement with Waters Corporation to investigate measurement of endogenous steroids. The latter is linked with the acquisition of the latest mass spectrometer technology.

Drug utilisation and pharmacovigilance studies have included drotrecogin alpha, novaseven, ticarcillin, heparin-induced thrombocytopenia, agranulocytosis associated with terbinafine and drug-induced acute renal failure.

**Current Research Activities**

**Clinical Trials**

Development and evaluation of high-throughput HPLC-MS/MS methods for immunosuppressant drugs.

Development and evaluation of new HPLC-MS/MS methods for aldosterone.

Ongoing drug utilisation and pharmacovigilance studies

**Other Research**

Investigation of a relationship between free mycophenolic acid and toxicity early post renal-transplant. (Collaboration with Department of Renal Medicine, Princess Alexandra Hospital and The School of Pharmacy, The University of Queensland).

Improved analysis of immunosuppressant drugs by HPLC-tandem mass spectrometry. (Collaboration with Dr Frank Rooney, Applied Biosystems, Melbourne).
Lectures and Presentations

Paul Taylor


Mass spectrometry in the clinical laboratory. Asia Therapeutic Drug Monitoring Seminar, Hong Kong, June.

High-throughput HPLC-MS/MS methods suitable for the monitoring of tacrolimus and everolimus. Franklin ME, Pillans PI. Asia Therapeutic Drug Monitoring Seminar, Hong Kong, June.

Therapeutic drug monitoring of immunosuppressant drugs: HPLC-MS/MS or immunoassays? Therapeutic Drug Monitoring Seminar, Hong Kong, June.

Therapeutic drug monitoring of immunosuppressant drugs: HPLC-MS/MS or immunoassays? Therapeutic Drug Monitoring Seminar. Singapore Transplant Society, Singapore, June.

Financial Support

Grants

$47,000 Golden Casket Foundation. Optimizing detection of curable hypertension by the development of a highly accurate method for measuring aldosterone concentrations in human blood and urine. (Stowasser M, Gordon RD, Taylor PJ)

Other Support

$280,000 Waters Corporation. Development of HPLC-MS/MS assays of clinical significance and utility (Taylor PJ, Cooper DP, Morris MR).

$130,000 Waters Corporation. Development of HPLC-MS/MS assays of clinical significance and utility (Taylor PJ, Cooper DP, Morris MR).

Public Service Relevant to Research

Paul Taylor

Councillor, Board of The International Association of Therapeutic Drug Monitoring and Clinical Toxicology

Editorial Board, Therapeutic Drug Monitoring

Associate Professor Peter Pillans

Australian Adverse Drugs Reactions Advisory Committee

Australian Drug Evaluation Committee

Queensland Hospitals Drugs Advisory Committee


Publications

9 journal articles
4 abstracts
4 book chapters
1 article in press
Dermatology Department

Staff

Dr John Auld,
Director

Dr Greg Siller,
Research Co-ordinator

Dr Megan Andrews,
Supervisor of training

Visiting Medical Officers

Dr Michael Freeman
Dr Portia Miller
Dr David Francis
Dr Karen Lun
Dr Victoria Shepherd

The Dermatology Department provides outpatient, inpatient and day care services relating to general medical and surgical dermatology. The Visiting Medical Officers are supported by three full time Registrars, one part time Registrar and a Resident Medical Officer. Sub specialist clinics include a pigmented lesion clinic, laser surgical clinics and specialist dermatologic surgical clinics.

Current Research Activities

The Department completed a five year study into the efficacy and safety of Imiquimod 5% cream applied to superficial basal cell carcinomas.
The Diabetes and Endocrinology Department continues to provide 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 Mount Isa Base Hospital.

The Department has undergone some changes during the past twelve months. The previous Director, Professor John Prins has been appointed to the position of Chair, Centres for Health Research, and Dr Anthony Russell has been appointed as Director of the Diabetes and Endocrine Department. Three new part time consultants were appointed in December – Drs Duncan, Hendrich and Mackenzie. A separate consultant is now responsible for inpatient diabetes care consultations in an attempt to improve inpatient diabetes management.

An innovation proposal, for $1.8 million, submitted by Dr Russell to establish an Inala Chronic Disease Management Centre, with the aim being to deliver tertiary level care in diabetes management in a primary care setting, was successful. The Department is now utilising an electronic health record for management of its outpatients which will assist with establishing databases to assist in the running of clinical trials.

The Department is closely aligned with the Centre for Diabetes and Endocrine Research (http://www.som.uq.edu.au/research/cder/). In 2006, approximately fifty researchers, students and support staff worked in the Centre for Diabetes and Endocrine Research. An important research highlight during the year was the gaining of four Diabetes Australia Research Trust grants.

Many of the consultants and senior registrars 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 Randomized, Double-Blind, Placebo-Controlled Study to Determine the Efficacy and Safety of SYR110322 (SYR-322) When Used in Combination with Sulfonylurea in Subjects with Type 2 Diabetes.

A Multicentre Randomized, Double-Blind, Placebo-Controlled Study to Determine the Efficacy and Safety of SYR110322 (SYR-322) When Used in Combination with Pioglitazone in Subjects with Type 2 Diabetes.

A Multicentre, Randomized, Double-Blind, Placebo-Controlled Study to Determine the Efficacy and Safety of SYR110322 (SYR-322) Compared with Placebo in Subjects with Type 2 Diabetes.

A Multicentre Randomized, Double-Blind, Placebo-Controlled Study to Determine the Efficacy and Safety of SYR110322 (SYR-322) When Used in Combination with Insulin in Subjects with Type 2 Diabetes.

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

A Randomised, Double-Blind, Placebo-Controlled Study to Assess the Safety, Tolerability and Efficacy of L-001037536 (Cathepsin-K Inhibitor) in the Treatment of Postmenopausal Women with Osteoporosis.

A Randomised, Double-Blind, Two-Arms, Placebo-Controlled, Parallel-Group, Multicentre Study of Rimonabant 20mg/day in the Treatment of Atherogenic Dyslipidemia in Abdominally Obese Patients.

The Long Term Efficacy and Safety Assessment of a Three Year Oral Administration of S12911 in Osteoporotic Postmenopausal Women having Participated either in Spinal Osteoporosis Therapeutic Intervention "SOTI" Study or Treatment of Peripheral Osteoporosis "TROPOS" Study.

A Double-Blind, Randomised, Placebo-Controlled, Phase 3 Study to Determine the Efficacy of Arzoxifene 20mg/day to Reduce the Incidence of Vertebral Fractures and Invasive Breast Cancer Incidence in Postmenopausal Women with Osteoporosis or with Low Bone Density Without Osteoporosis.

A Phase 2B, Randomised, Double-Blind, Placebo-Controlled Study to Assess the Efficacy, Safety and Tolerability of 24 Weeks Treatment with Different Doses of AOD9604 Tablets on Weight Loss in Obese Adults.

A One-Year, Open, Randomised, Parallel, Three-Arm Study Comparing Exubera (Insulin, Dry Powder Pulmonary Inhaler) Vs Avandia (Rosiglitazone Maleate) and an Add-On Therapy Vs Exubera Substitution of Sulphonylurea in Patients with Type 2 Diabetes, Poorly Controlled on Combination Sulphonylurea and Metformin Treatment.

A 24-Week Randomised, 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 Randomised, 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.

Trial to Reduce Cardiovascular Events with Aranesp Therapy.
A six month study, the effect on glycaemic control after once daily administration of liraglutide in combination with glimepiride monotherapy versus glimepiride and rosiglitazone combination therapy in subjects with Type 2 diabetes.

Diabetic Retinopathy Candesarten Trials.

International study of prediction of intra-abdominal adiposity and its relationships with cardiometabolic risk / intra-abdominal adiposity.

Other Research

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

Role(s) of each of the four FGF receptors in the replication, priming and differentiation phases of human adipogenesis.

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.

Investigations into the links between obesity and blood clotting.

Identification of novel targets for bone anabolic therapies.

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 11β-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 effects 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.

**Patents**

Differentiation modulating agents and uses thereof. (Granted). US Patent PCT/AU03/00826

Differentiation modulating agents and uses thereof. (Granted) Australian Patent PCT/AY2005/000008

Metabolism modulating agents and uses therefore. (Granted) US Patent 60/601797

**Financial Support**

**Current NHMRC Grants**

$400,000 Centre of Clinical Research Excellence in Cardiovascular Disease and Metabolic Disorders. (Marwick T, Prins J, Shaw J, Stowasser M, Johnson D, Beller E, Coombes J).


$152,000 Adiponectin multimerisation, secretion and action. (Whitehead J, Macdonald G, Prins J).

$163,250 Bone anabolic gene pathways. (Gardiner E, Eisman J).

$152,000 IMPDH and lipid accumulation. (Whitehead J, Prins J).

**Other Grants**

$65,000 Lions Senior Medical Research Fellowship. Investigation into Insulin Action and Insulin Resistance. Fellowship (Whitehead J).

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

$45,000 Diabetes Australia Research Trust. Mechanisms of corticosteroid-induced insulin resistance. (Prins J).

$45,000 Diabetes Australia Research Trust. The Regulation and Action of Placental Growth Hormone in Diabetic Pregnancies. (Russell A).

$55,000 Pfizer. Cardiovascular Fellowship (Sullivan C).

$55,000 Diabetes Australia Research Trust. (Sullivan C).

$30,000 UQ. Early Career Research Grant (Hickman I).

$10,000 PA Foundation. (Hickman I).

$50,000 PA Foundation. Metabolic complications of liver transplantation. New Appointment Grant (Macdonald G).

$10,000 PA Foundation. (Richards A).

$45,000 Diabetes Australia Research Trust. Mechanisms of corticosteroid-induced insulin resistance. Project Grant (Prins J, Whitehead J)

$19,000 The George Weaber Foundation Trust. Molecular Co-ordination of IRS-1 function. (Whitehead J)

$100,000 Adipogen. Validation of IMPDH as a target in obesity. (Whitehead J).


**Other Support**

$5,165. Astra Zeneca. Gallant 7 (Prins J)

$4,820. Astra Zeneca. Gallant 8 (Prins J)

$69,925. Astra Zeneca. Gallex 1 (Prins J)

$14,597. Servier. Strontium (Prins J)

$163,434. Metabolic Pharma. Options (Prins J)

$21,155. Sanofi-Aventis. Adagio (Prins J)

$17,737. Amgen Australia. Amgen 162 (Prins J)

$19,671. MSD. Cat K (Williamson M)

$7,650. Quintiles. GJAD (Williamson M)

$6,972. Bristol Myers Squibb. BMS (Prins J)

$13,752. Servier. SOTI & TROPOS (Prins J)

$33,636. Pfizer. Exubera (Prins J)
$6,004. Amgen Australia. Treat (Prins J)
$1,250. MSD. BPP (Prins J)
$22,803. Icon. Direct (Prins J)
$10,475. Sanofi-Aventis. Inspire (Prins J)
$19,130. Novo Nordisk. Lead (Russell, A)
$1,258. PPD. Takeda (Prins J)

Publications
27 journal articles
25 abstracts
1 book chapter
7 articles in press

Lectures and Presentations

Dr Emma Duncan
Osteoporosis Queensland/Arthritis Australia Healthy Bones Week 2006 “Current trends for the prevention and management of Osteoporosis”, Wesley Hospital, August.
Invited Speaker at Special Interest Group in Genetics as part of European Calcified Tissues Society Meeting, Prague.

Dr Edith Gardiner
“Vitamin D-Wnt pathway interactions in skeletal and non-skeletal cells” Invited symposium presentation at the Australian Endocrine Society Annual Scientific Meeting, August, Gold Coast, Queensland.
“Central control of bone mass” Invited plenary presentation at the 3rd International Osteoporosis Foundation Asia-Pacific Regional Conference on Osteoporosis and 16th Annual Meeting of the Australian and New Zealand Bone and Mineral Society, October, Port Douglas, Queensland.
University of Rochester, Rochester, New York, September.
Yale University School of Medicine, New Haven, Connecticut, September.
Medical College of Georgia, Augusta, Georgia, September.

Dr Ingrid Hickman
Queensland Hepatitis C Council, Brisbane, March “Diet and Liver Disease”.
GP Education Weekend - Coolum, May “Myths and Marvels in the dietary treatment of obesity”.

Dr Louise Hutley

Dr Trisha O’Moore Sullivan
Driving and Diabetes. Invited Symposium Presentation. 32nd Annual Scientific Meeting of the Australian Diabetes Association. Gold Coast, September.
Modern Management of Obesity. Redcliffe Hospital Grand Rounds, April.
Drug Trials in the Centre for Clinical Research Excellence. PAH Week, September.

How do we get fatter: a molecular and cellular perspective. Queensland Institute of Medical Research, April.

Associate Professor Graham Macdonald
Australian Gastroenterology Week, Adelaide, SA. Australian Liver Association Workshop “Ursodeoxycholic acid for PSC – the case against”, October.

Associate Professor David McIntyre
Endocrine Society of Australia Seminar Meeting. Lorne. DAFNE - an approach to insulin replacement therapy in Type 1 diabetes. April.
Australasian Diabetes in Pregnancy Society, Gold Coast. Type 1 diabetes: When to deliver? Falling insulin requirements in pregnancy, August.
Mater Health Services Centenary Scientific Meeting. Islet Transplantation in the Future at Mater Health Services, August.

Dr Trisha O’Moore Sullivan
Driving and Diabetes. Invited Symposium Presentation. 32nd Annual Scientific Meeting of the Australian Diabetes Association. Gold Coast, September.
Modern Management of Obesity. Redcliffe Hospital Grand Rounds, April.
Drug Trials in the Centre for Clinical Research Excellence. PAH Week, September.
Management of Obesity in the Intellectually Disabled Adult.
Invited Presentation. Queensland Centre for Intellectual and
Developmental Disability, Mater Hospital, October.

Saving the Beta Cell Debate. Invited Presentation. Educational
Symposium for Endocrinologists, Brisbane, August.

Diabetes: Approach and Management. Invited Lecture. Post-
Graduate Pharmacy Course, July.

Diabetes Update. Department of Rheumatology. Princess
Alexandra Hospital, July.

Obesity Management for the Basic Trainee. Brisbane, March.

Professor John Prins
International Congress of Obesity: Plenary Lecture - “Lifecycle
of the Human Adipose cell”

Dr Anthony Russell
“Calcium and Vitamin D in Osteoporosis” GP Education Week-
end, Sanofi-Aventis, Gold Coast, April.

“Diabetes: An Update” FRACP Basic Trainees Lecture
Programme. Brisbane, April.

“Practical Management of T2DM” GP Education Session, GSK.
Mackay, May.

“The Four “B’s”; Brain, Blood Vessels, Beta-cell and Blubber”.
Eli Lilly National Future Directions Meeting, Sanctuary Cove,
May.

Chair workshop on “Screening for Cardiovascular Disease in
Diabetes”. Beyond meeting, GSK, Sydney.

“How Does Pituitary Disease Present”, Pituitary Foundation,
Princess Alexandra Hospital, July.

“Obesity in Queensland Opening Talk”, Princess Alexandra
Hospital Week, August.

“Calcium and Vitamin D: Its role in Osteoporosis”, Educational
Session for Obstetricians and Gynaecologists, Sanofi Aventis,
August.

“Osteoporosis: Who to Treat, When to Start, What Drug to
Use and When to Stop?” Osteoporosis Australia and ANZBMS
Health Professional Education Symposium, Convention
Centre, Brisbane, October.

“An Update on Diabetes” Masters GP Programme. Med-E-Serv,
Brisbane, December.

Dr Clair Sullivan
“New thoughts in Diabetes and Perioperative Steroids” 2006
Australian Society of Anaesthetists Annual Scientific Meeting.
Invited Presentation.

Dr Jon Whitehead
The Queenstown Signal Transduction (QueST) Meeting -
Queenstown, NZ.

ComBio, September, Brisbane, Australia.
The Australian Health and Medical Research Congress
(AHMRC) - Melbourne, Australia.
Invited lecture - University of Auckland, NZ.

Post Graduate Students

Janet Warner, PhD, completed
Sarah Good, B Med Sci, completed
Felicity Newell, PhD, submitted
Louise Smith, PhD, submitted
Trisha O’Moore-Sullivan, PhD, in progress
Hayley Charlton, PhD, in progress
Alison Sweet, PhD, in progress
Matthew Stephenson, PhD, in progress
Yang Zhe, PhD, in progress
Elaine Thomas, PhD, in progress
Hua Su, PhD, in progress
Sherry Ngu, PhD, in progress
Leonie Callaway, PhD, in progress
Carolyn Lang, PhD, in progress
Pengeheng Li, PhD, in progress
Leah Worton, PhD, in progress
Janelle Nisbet, PhD, in progress
Stephanie Levasseur, MSc, in progress
Rachel Colley, PhD, in progress
Thien Nguyen, MSc, commenced
Dalveer Singh, B Med Sci, commenced

Awards

Elaine Thomas
Received a travel award for the Queenstown Signal
Transduction Meeting, Queenstown, New Zealand, September.

Dr Edith Gardiner
Chair, Program Organising Committee for 16th Annual
Meeting of the Australian and New Zealand Bone and Mineral
Society.
Dr Ingrid Hickman
Queensland Health Allied Health Research Scholarship Committee.


Dr Louise Hutley
Australian representative, organizing committee for Satellite Meeting 3 (Recent Progress in Adiposcience), International Conference on Obesity, Hamilton Island Australia, September.

Reviewer for Diabetes Australia Research Trust (DART) Project Grants.

Reviewer for American Journal of Physiology, and Diabetes, Obesity and Metabolism.

Associate Professor Graeme Macdonald
Convenor, 5th Australasian Hepatitis C Conference, Sydney, February.

Associate Professor David McIntyre
Grant reviewer for Diabetes Australia Research Trust, Royal Women's Hospital Melbourne, John P Kelly Foundation – Mater Health Services, National Institute for Health Research UK, Medical Research Council, UK.


Dr Trisha O’Moore Sullivan
Reviewer for European Journal of Clinical Investigation and Internal Medicine Journal.


Princess Alexandra Hospital High Cost Drug Committee.

Professor John Prins
Princess Alexandra Hospital Research Committee.

NHMRC Grants Review Panel.

Dr Anthony Russell

Grant reviewer for Diabetes Australia Research Trust, National Health and Medical Research Council.

Journal Reviewer for Medical Journal of Australia, Clinical Endocrinology (Oxford), Diabetologia.


Dr Jon Whitehead
Princess Alexandra Hospital Research Committee.

National Health and Medical Research Council Grants Review Panel.

Journal of Endocrinology - Editorial Board.

The Biochemical Journal - Advisor to Editorial Board.
The Division of Diagnostic Radiology reaped the benefits of their persistent efforts over the 2005-2006 period with a total of twenty-one publications (up 20% from 2005), both accepted and published in 2006, in high impact factor international Radiology journals. The group is one of the leading departments in Australia in this regard and all those involved deserve congratulations. The research skills base continues to widen and the group looks forward to a productive 2007.

**Current Research Activities**

**Clinical Trials**
The Division is involved in several dozen collaborative projects with various units within the Princess Alexandra Hospital and welcomes further such enquiries.

**Other Research**
The Radiology Division has many ongoing research activities, both intradepartmental and collaborative. The current Princess Alexandra Hospital initiatives include: the value of routine cervical spine MRI in possible demyelination; can FLAIR reduce preoperative imaging in the patient with a solitary enhancing lesion; the use of CT in first episode of psychosis; MRI request mandatory safety sections – compliance rate in the non-audited practice. The Division continues to be involved in many international trials e.g. carotid and renal artery stenting trials, and polycystic kidney disease progression as measured by MRI.

**Publications**

- 19 journal articles
- 6 abstracts
- 9 articles in press
Translating Science into Better Health

Lectures and Presentations

Kenneth L Manthey
Data Mining. Invited Faculty Member to PACS Stream at CT/MRI Conference, Conrad Jupiters, Gold Coast, Queensland, July.

Dr David Leggett
Invited Faculty Member. Hands on Ultrasound Guided Intervention course. RSNA, Chicago.

Dr Lawrence Sim
PACS and the Electronic Medical Record; Monitors for Soft Copy Reporting; Future technologies for PACS.
Invited Faculty Member to PACS Stream at CT/MRI Conference, Conrad Jupiters, Gold Coast, Queensland, July.

Dr Lawrence Sim, Kenneth Manthey, B Keir
Soft Copy Radiology – Which Monitor to Use. ACPSEM/IBME/SMBE Joint Local Symposium, Brisbane.
Testing Monitors for Soft Copy Radiology. EPSM06, Noosaville, Queensland.

Public Service Relevant to Research

Dr Lawrence Sim
Chair, Radiology Informatics Workshop at EPSM06 Conference, Australis Lakes Resort, Noosaville, Queensland, September (Invited).
Member, Editorial review Board for the Journal of Australasian Physical and Engineering Sciences in Medicine.

Associate Professor Stephen Stuckey
Associate Editor, Australasian Radiology.
Reviewer, Australasian Radiology.
Reviewer ISMRM (International Society of Magnetic Resonance in Medicine) 2007 abstracts.

Post Graduate Studies

Associate Professor Stephen Stuckey. University of Melbourne Doctor of Medicine program.

Awards

The Ear Nose and Throat Department of the Princess Alexandra Hospital services the community nationally and internationally. The well established Head and Neck Cancer Clinic caters for patients from all over Queensland, interstate and internationally.

The Department has built its reputation on its ability to obtain good results in patients with advanced head and neck cancer. It recently expanded its clinical expertise by the development of skull base surgery through Dr Ben Panizza, the development of the Voice Clinic through Dr Scott Coman and its outreach into Island and native communities through Dr Chris Perry.

With all this expertise it has been a very good place for The University of Queensland’s medical students to receive good teaching. The Fellowship program has further been helpful in getting overseas knowledge and exposure to the up and coming generation of doctors.

Current Research Activities

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 at the Hospital has been in treating patients who suffer with head and neck cancer.

This Clinic 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 now sees over 300 new patients and many, many more old patients per year who suffer with head and neck cancer.
Clinical Trials
Laser resection radiotherapy in head and neck cancer.
Molecular markers in head and neck cancers.

Other Research
Research Associated with University of Queensland
Associate Professor Nick Saunders who works in the Cancer Collaborative Group at this hospital has been working with this department and using clinical material from patients with head and neck cancer to study the molecular biology of the cancer, in particular E2F, in the progression of tumours. It is hoped that the outcome of this research may be a method whereby the reversal of the cancer process may be achieved in tumours that are susceptible. He has also developed a raft of growing tongue cancers from the clinic specimens. This will allow experiments to be carried out on which tumours may be sensitive to chemotherapy. In addition, it will allow the investigation of those more malignant tumours which are thought to arise from stem cells.

Collaboration with Queensland Institute of Medical Research
The Department has collaborated with Queensland Institute of Medical Research in the provision of important material in tumours of the nasopharynx and has initiated a unique study in the identification of the Epstein Barr virus in these tumours. This study has had several interesting outcomes. Firstly, it has lead to the development of an adoptive vaccine which may be useful in treating those tumours which are recurrent following surgery or radiotherapy. At present there are more than twenty-five patients enrolled in this study and a test trial of a vaccine is being undertaken. In addition 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. This study has been undertaken with Professor Dennis Moss, Dr Joanne Davis, Dr Azgary, Dr Brent McMonagle, Dr David Hall, Dr David Chin and Dr Michael Elliot at the Queensland Institute of Medical Research.

Gene Arrays in Head and Neck Cancer
This study is being undertaken with Dr David Chin, Dr Glen Boyle and Professor Peter Parsons at the Queensland Institute of Medical Research. Materials from patients seen at the Head and Neck Clinic have 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 work is being done to identify the proteins by immuno-histochemical means and hopefully this will lead to several conclusions. Firstly, it may lead to the development of a serum or salivary test for tumours. Secondly, tumour from a metastasis may be able to be used by doing a gene array to identify the primary site. Thirdly, it is hoped that eventually by using either a virus or peptide a genetic protein reversal may be effected to halt tumour growth. These studies offer great promise and the results so far are most encouraging.

Parotid Markers and Dr Kelvin Lim
The research project investigates a cohort of approximately 138 patients who underwent excision of the parotid salivary gland at the Princess Alexandra Hospital between 1991 and 2001. These patients had either primary or metastatic tumours of the parotid. The aims of the project are (1) to identify molecular characteristics and biomarkers in primary and metastatic parotid tumours, and (2) to determine the correlation between immunohistochemical profile and diagnosis, prognosis and clinical outcome. Identification of novel biomarkers (a “molecular signature”) may facilitate and improve diagnosis and disease classification, predict aggressive tumour behaviour and response to treatment, as well as aid selection of appropriate targeted therapy. The emphasis of the research will be on cutaneous squamous cell carcinoma metastatic to the parotid and lymph nodes of the neck.

Collaboration with Griffith University
Collaboration with Griffith University is being undertaken with Professor Allan MacKay-Sim and his department. 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 is being carried out in a human paraplegic patient at Princess Alexandra Hospital.

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 Wister rat. 70% of those rats that had olfactory ensheathing material used regenerated the sciatic nerve compared to 0% in the controlled rats.
Clinical Prospective of Randomised Control Study on Laser versus Radiotherapy and for T1, T2 Laryngeal Cancer

This is a multi-national study where patients enrolled in the study will be treated with either one modality, i.e. 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. In addition the costs of these various treatments will be measured. At the present time there are many international centres collaborating with this study and from the Head and Neck Clinic forty-eight patients have enrolled.

Publications

3 journal articles
2 book chapters

Lectures and Presentations


Evolution of Larynx and T1, T2 Laryngeal Cancer. Royal Marsden Hospital, London - May.


Australian Rhinological Society Meeting: Guest Presenter. October, Medical Management of Chronic Rhinosinusitis. Barossa Valley, October.

Royal Australasian College of Surgeons, Brisbane. October, Winding Down From surgical Practice: View to Retirement.

Guest Visitor; Peter MacCallum Cancer Centre. Melbourne, November.


As a part of The University of Queensland Academic activity, Professor Coman arranges conferences and courses for ENT doctors and nurses every year. These seminars attract doctors from interstate and overseas. Several highly reputable ENT surgeons have visited and shared their experiences. Conferences included:

International ENT Meeting – Campitello, Italy, January.

Head and Neck Course – held at The University of Queensland, Brisbane, July.

Rhinology / FESS Course – held at The University of Queensland, Brisbane, July.

International Thyroid Conference, November.

Post Graduate Students

Dr Ben Wallwork, MPhil, in progress
Dr Kelvin Lim, MPhil, in progress
Dr Thanh Hai, MPhil, in progress
Dr David Chin, PhD, in progress
Dr David Hall, PhD, in progress
Dr Brent McMonagle, PhD, in progress
Emergency Department

Staff

Dr Philip Kay,
Director, MBBS, FRACGP, Dip RACGP, 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

Dr Andrew Staib,
MBBS, FACEM

Julie Finucane,
OAM, FRCNA, Adj Clinical Lecturer UQ, Nurse Unit Manager, Mast Clin Nurs Emerg Nsg

Kay Ahern,
Nurse Educator, Mast Clin Nurs Emerg Nsg

Cathy Davis,
Acting Nurse Manager

Trina Cambourne,
Acting Nurse Educator

Dr Roy Mulcahy,
MB ChB, DA(Lond), FRCSI, FACEM (Part-Time)

Dr Marianne Cannon,
MBBS, FACEM (Part-Time)

Dr Andrew Parkin,
MB,ChB, FACEM (Part-Time)

Dr Sean Lawrence,
MBBS, FACEM (Part-Time)

The Emergency Department is a designated Level 6 - Trauma centre with 42,000 annual attendances and 14,000 admissions. Its admission rate is amongst the highest in Australasia and demonstrates the high level of clinical acuity. In addition to Emergency Department presentations, the Department is also responsible for short stay admissions and attendance at cardiac arrests within the Hospital. The Department also runs a highly successful fellowship teaching program which graduated 3 fellows, or half the Queensland graduates, in 2006. The ongoing input to a Brisbane-wide primary teaching program has recently been intensified.

The Department has high clinical and educational commitments and, historically, research has been limited due to a lack of funding for trained and dedicated research assistants. However, over the last eighteen months, the Queensland Government has committed funding for Emergency Medicine research. Dr Michael Sinnott, with others, has been instrumental in the development of an entity to oversee and administer these funds. It is anticipated that within the first quarter of 2007 the Emergency Medicine Research Trust Fund will commence activities.

Current Research Activities

Mathematical modelling of flows in Emergency Department. (Professor Erhan Kozan (QUT), Dr James Collier and Dr Michael Sinnott).

Trauma Registry, ongoing project with the National Institute of Clinical Studies.

Patents

Dr Sinnott is involved (privately) with commercialisation of Intellectual Property developed by Qlicksmart and other third parties, including:

- Qlicksmart Scalpel Blade Remover
- Qlicksmart Single-use Sterile Scalpel blade remover
- Bladeserver Passing Tray (UK company)
- Check-Clip device for reducing medication errors (Gold Coast Paramedics)
- Snapit to open glass ampoules (Rockhampton ED RN)
- Syringe Aspiration Device (Brisbane Maxillary Facial Surgical Trainee)
- Syringe Aspiration Pen (Dr Neville Henry)

Financial Support


Publications

6 journal articles
Lectures and Presentations

Julie Finucane

Disaster Preparedness and Response. Rural College of Nursing meeting, Toowoomba, 2006.

K Holzhauser, M Cooke, J Finucane, S Winch and C Davis

Developing A Research Active Clinical Environment Within The Emergency Department Australasian College of Emergency Medicine (Queensland) and College of Emergency Nursing Australasia (Queensland Branch), 3rd Annual Emergency Medicine Symposium, Gold Coast, 2006.

Dr Michael Sinnott

Panellist, "New Inventors" 6th Annual Medical Research Conference of Queensland. 23rd November.

Dr Peter Thomas

Instructor, Pre Hospital trauma Life Support (PHTLS) courses, Thursday Island, Pittsworth, Weipa, Roma.

Lecturer, Queensland Ambulance Service Intensive Care Paramedic Programme.

Lecturer, Rural Skills Programme, Mater Education Centre (Medical Education), Brisbane.

Lecturer, Emergency Medicine Workshop, Queensland Rural Medical Support Agency (Health Workforce Queensland).

Instructor, Rural Preparation (JHO’s) Workshop, Queensland Rural Medical Support Agency, (Health Workforce Queensland).

Presenter, Emergency Skills Workshop, conducted by Queensland Divisions of General Practice and Medical Education Solutions, Mackay, Cairns.

Presentation, “Clinical Governance”, to Health Contact Centre, Queensland Health, Tuesday 24th January.


Presentation, “After Patel; Clinical Governance 101”, to the Department of Anaesthesia Staff Group, Royal Brisbane and Women's Hospital, Wednesday, 5th April.

C Tracey, L Finucane and C Carthew


Post Graduate Students

Dr Colin Page, Masters of Medical Science (Clinical Epidemiology), completed

Prue Cable, Masters in Advanced Practice – Emergency Nursing, in progress

Melanie Hill, Masters of Nursing, in progress

Deanne McErlean, Masters in Advanced Practice – Emergency Nursing, in progress

Lindy Nickery, Masters in Advanced Practice – Emergency Nursing, in progress

Lena Prout, Masters in Advanced Practice – Emergency Nursing, in progress
Eleanor Rose, Masters of Nursing, in progress

Dr Marianne Cannon, Masters of Public Health, commenced

**Public Service Relevant to Research**

Dr Michael Sinnott

Instrumental in the development of the Emergency Medicine Research Trust Fund.

Dr J Collier and Dr I McNeill

Participated in the establishment of a new state wide collaborative known as EMERG Queensland (Emergency Medicine Evaluation and Research Group). This group is to be a forum for the sharing of research ideas and expertise. It will also facilitate research being carried out over multiple sites.
2006 was a significant year for the Department of Gastroenterology and Hepatology. There was success in securing competitive grant monies, with Dr Macdonald being awarded funds from the Queensland Cancer Fund, Wesley Research Institute and Smart State Research Fund for commencement in 2007 for studies of Barrett’s Oesophagus, a premalignant condition. In addition Associate Professor Macdonald was added as a Chief Investigator in the funding renewal of the successful National Health and Medical Research Committee Centre for Clinical Research Excellence in Cardiovascular and Metabolic Disease headed by Professor Tom Marwick at the Hospital. His research in this group will focus on late metabolic outcomes in liver transplant recipients. The laboratory of Professor Crawford, and Drs Fletcher and Bridle was awarded a Queensland Health Smart State Research Grant to continue their investigations into the significance of co-factors, particularly alcohol, iron and obesity, on progressive liver disease. This funding will significantly accelerate research into important aspects of these cofactors on liver diseases such as chronic hepatitis C and obesity-related liver injury, both significant causes of liver failure. The other major project undertaken by this group is examining the effect of immunosuppression on the post-transplant hepatic response particularly in relation to re-infection in hepatitis C patients. This work has National Health and Medical Research Council funding and is revealing interesting results which will impact on the suppression of the development of fibrosis in these patients post liver transplant.

There were publications across a range of areas in the Department, highlighting the breadth of research being undertaken, although still with a focus primarily on liver disease. The Department has been restructuring and is looking to recruit Consultant medical staff with clinical and research interests in luminal gastroenterology to improve research outputs related to luminal disease. The year also saw changes for two senior Consultant staff in the Department. Professor Paul Kerlin retired in April after twenty-five years of service. His research and dedication contributed...
significantly to the current strong research base in the Department where the ethos of the marrying of basic research with clinical data continues. During the year Associate Professor Crawford was awarded a University of Queensland Professorial chair in Hepatology, based at Greenslopes Private Hospital. Professor Crawford has significantly decreased his time commitment to the Princess Alexandra Hospital but will continue to be involved in clinical trails and the promotion of liver disease research on this campus. The aim is to maintain strong research and training ties between the Gastroenterology groups at both hospitals.

**Current Research Activities**

**Clinical Trials**

PEG-Intron™ Plus REBETOL® For the Treatment of Subjects with Chronic Hepatitis C who Failed to Respond to Previous Combination Therapy (Any α Interferon Treatment In Combination With Ribavirin).

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 α Interferon Plus Ribavirin.

Randomized, Multicentre, Open Label, Phase IV Study Evaluating the Efficacy and Safety of 16-Week Versus 24-Week Treatment with PEGASYS® in Combination with Copegus® in Interferon-naïve Patients with Chronic Hepatitis C Genotype 2 or 3 Virus Infection.

A Randomized, Double Blind Trial of Ldt (Telbivudine) versus Lamivudine in Adults with Compensated Chronic Hepatitis B.

Randomized, Double-Blind Trial of Telbivudine (LdT) versus Lamivudine in Adults with Decompensated Chronic Hepatitis B and Evidence of Cirrhosis.

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.

A Double-Blind, Randomised, Placebo-Controlled Study of Adefovir Dipivoxil for the Treatment of Patients with HbeAg(+) Chronic Hepatitis B Virus Infection.

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.

A prospective non-randomised dual arm longitudinal cohort within which all subjects will be given the option of undergoing treatment involving a 24 week course of pegylated interferon monotherapy (180 mcg / weekly at entry to study).

A randomized, open label trial of Telbivudine (LdT) versus Adefovir Dipivoxil in adults with HBeAg-positive, Compensated Chronic Hepatitis B.

An Open-Label Trial of Telbivudine (LdT) in adults with Chronic Hepatitis B previously treated in Idenix-sponsored Telbivudine studies.

Phase IV study of tailored therapy with Peg Interferon alpha 2b and Ribavirin for patients with Genotype 3 and high viral load. Genotype 3 Extended Treatment for HCV.

Hepatitis C in South East Asians: The association between novel genotypes and response to Pegylated-Interferon and Ribavirin therapy.

A phase IV, Randomised, Multicentre, Efficacy and Safety Study Examining the Effect...
of Induction Dosing with the Combination of Peginterferon Alfa-2a and Ribavirin in Patients with Chronic Hepatitis C Infected with Hepatitis C Genotype 1.

A phase III, Randomised, Multicentre, Efficacy and Safety Study Examining the Efficacy of the Combination of Peginterferon alfa-2a and Ribavirin versus Peginterferon alfa-2a monotherapy in liver transplant recipients with Recurrent Hepatitis C Virus Infection.

A Phase 2b, Randomised, Multicentre, Active controlled Open Label Study to Evaluate the Efficacy and Safety of Albuferon in Combination with Ribavirin in Interferon Alfa Naïve Subjects with Chronic Hepatitis C Genotype 1.

A Randomised, Double- blind, Controlled Evaluation of Tenofovir DF versus Adefovir Dipivoxil for the Treatment of HBeAg Positive Chronic HBV.

A Randomised, Double- blind, Controlled Evaluation of Tenofovir DF versus Adefovir Dipivoxil for the Treatment of Presumed Pre-core Mutant Chronic Hepatitis B.

Satavaptan in the Prevention of Ascites Recurrence: A double-blind, randomised, parallel-group comparison of Satavaptan at 5 to 10 mg daily versus placebo in the absence of diuretics in patients with recurrent ascites due to cirrhosis of the liver.

Satavaptan Cirrhotic Ascites Treatment Study: a double-blind, randomised, parallel-group comparison of treatment with Satavaptan at 5 to 10 mg daily versus placebo on top of conventional treatment in patients with ascites due to cirrhosis of the liver.

Satavaptan in the Prevention of Ascites Recurrence: a double-blind, randomised, parallel-group comparison of Satavaptan at 5 to 10 mg daily versus placebo with concomitant diuretics in patients with recurrent ascites due to cirrhosis of the liver.

**Other Research**

The regulation of hepatic insulin signalling and action.

The role of iron in hepatic insulin resistance.

The regulation of adiponectin multimerisation and secretion.

The structure and function of the adiponectin receptors, AdipoR1 and AdipoR2.

The role of adiponectin multimers in human disease.

Symptoms in people living with Hepatitis C infection.

Liver disease in Type 2 diabetes.

Factors that influence the development of renal failure in liver transplant recipients.

Long term metabolic complications following liver transplantation.

Interrelationships between alcohol and liver disease.

Immunosuppression and the post-transplant hepatic fibrogenic response.

Non-HFE related iron overload.

The antifibrotic role of rapamycin in liver disease.

Screening for the iron-overload disease, haemochromatosis.

The role of iron in the pathogenesis of primary hepatocellular carcinoma.

Altered hepatic pharmacokinetics and hepatic vascularity in liver disease.
**Financial Support**

**Current NHMRC Grants**


**Other Grants**

$50,000 PA Foundation. Metabolic complications of liver transplantation. New Appointment Grant (Macdonald GA).


$40,000 RCH Sasakawa. The use of rapamycin to slow scarring of the liver. (Crawford DHG, Bridle K, Fletcher LM, Fawcett J).

$10,000 PA Foundation. Immunosuppressant-mediated changes in extracellular matrix balance in animal models of liver disease. (Bridle KR).

**Publications**

13 journal articles
5 abstracts
1 book chapter
1 article in press

**Lectures and Presentations**

**Associate Professor Graeme Macdonald**


The Metabolic Syndrome and Fatty Liver Disease. Asia Pacific Association for the Study of the Liver, Manila, Philippines, 6th March.

**Dr Linda Fletcher**

Chronic liver disease - Is intercurrent alcohol use ever safe? Princess Alexandra Hospital Research Week.

Alcohol and Liver Disease. Redcliffe Hospital Grand Rounds.

**Rewards**

**Kim Bridle**

Pfizer/Gastroenterological Society of Australia Postdoctoral Fellowship ($63,000 per annum 2005-2006). Pathogenic mechanisms underlying co-toxicity in chronic liver disease.

**Public Service Relevant to Research**

**Associate Professor Graeme Macdonald**


**Professor Darrell Crawford**

Chairman, Australian Liver Association.

President Elect, Gastroenterological Society of Australia.

**Dr Linda Fletcher**


**Dr Kim Bridle**

Reviewer for: Gut, BBA - Molecular Basis of Disease.
The Haematology Department is now part of the Division of Cancer Services. The Department continues to provide state-of-the-art tertiary level clinical and laboratory haematological services to the Princess Alexandra Hospital and Southern Health Area. It provides state-of-the-art chemotherapy regimens, stem cell transplantation and immunotherapy with the aim of individualising therapy and improving clinical outcomes for patients with haematological disorders. There are increasing numbers of staff within the Department who are highly respected nationally and internationally and are leaders in their field. This is evidenced by the number of investigator initiated trials, publications and leadership roles in national organisations. The translational research continues to flourish and is increasingly becoming a significant part of the Department’s activity.

The year proved to be productive with a number of highlights which include:

- The Australasian Leukaemia and Lymphoma Group Tissue bank employs five scientific and administrative staff as a result of $1.5 Million National Health and Medical Research Enabling Grant and over $400,000 Leukaemia Foundation of Australia / Price Waterhouse Cooper Foundation Grant.
- The continuing expansion of translational research with total research funding of over $1.09 Million and the establishment of Collaborative Leukaemia and Cancer Stem Cell Groups.
- The hosting, in collaboration with the Centre for Immunology and Cancer Research, of the Inaugural International Meeting “New Directions in Leukaemia Research”.
- The establishment of Translational Research Group in Leukaemia in Collaboration with Cancer Biology Program (Centre for Immunology and Cancer Research).
- The presentation of “Minimal Residual Disease Monitoring in Core Binding factor AML”, plenary session, at the Haematology Society of Australia and New Zealand Annual Scientific meeting.

Staff

Dr Devinder Gill,
Director Clinical Haematology,
Princess Alexandra Hospital, Chair of
Princess Alexandra Hospital Cancer
Collaborative Group, and Deputy
Director Queensland Health Pathology
Services, Princess Alexandra Hospital

Dr Robert Bird,
Director of Haematology (Laboratory – QHPS), Princess Alexandra
Hospital, Senior Lecturer University of
Queensland

Dr Paula Marlton,
Senior Staff Haematologist Princess
Alexandra Hospital, Head of Leukaemia
and Lymphoma Services and Deputy
Director Haematology, Queensland
Health Pathology Services, Princess
Alexandra Hospital and Senior Lecturer
University of Queensland

Dr Anthony Mills,
Staff Haematologist Princess Alexandra
Hospital, Senior Lecturer University of
Queensland

Dr Peter Mollee,
Staff Haematologist Princess Alexandra
Hospital, Senior Lecturer University of
Queensland

Russell Saal,
Chief Scientist, Haematology,
Queensland Health Pathology Services

Dr Maher Gandhi,
Staff Haematologist, Princess
Alexandra Hospital, Senior Lecturer
University of Queensland

Dr Joanne Perel,
Staff Haematologist, Princess
Alexandra Hospital

Dr Devinder Gill and Team
Twenty-eight clinical trials in total with fourteen in lymphomas, nine in leukaemias and five in amyloidosis, myeloma.

New post-doctoral research scientist to fast track the various translation research projects.

Several distinguished International Speakers visited the Department.

Seventeen publications on leukaemias, lymphomas including in Hodgkin’s and adoptive immunotherapy for transplant-related lymphomas plus numerous abstracts.

Current Research Activities

Translational Research

Translational research has gained momentum as a consequence of the establishment of Research Groups in collaboration with the Centre for Immunology and the Cancer Research Cancer Biology Program in Leukaemia and Cancer Stem Cells. This year has also seen an increase in funding for research projects from successful grants, including National Health and Medical Research Council funding for the ALLG Leukaemia and Lymphoma Tissue Bank.

Translational and Clinical Research Projects

Valproate and cytarabine for poor prognosis Acute Myeloid Leukaemia (Co-investigator with S Lane).

Monitoring for bleomycin lung toxicity using serum MUC-1 assays.

Acute Myeloid Leukaemia; Leukaemia stem cell biology.

Leukaemic Stem cells in Chronic Lymphocytic Leukaemia.

Microarrays in Chronic Lymphocytic Leukaemia.

PKR in Chronic Lymphocytic Leukaemia.

Minimal Residual Disease in Acute Myeloid Leukaemia.

Viral and Immune biomarkers in EBV+ lymphomas.

Prognostic scores in post-transplant lymphoproliferative disease.

Immunosuppression reduction in post-transplant lymphoproliferative disease.

Prognostic impact of serum free light chain changes in multiple myeloma.

Prognostic impact of bone marrow plasma cell clonality as assessed by immunohistochemistry in patients with myeloma undergoing autologous stem cell transplantation.

Analytical performance of serum free light chain assay.

Outcomes in patients with Acute Myeloid Leukaemia treated with HyperCVAD.

Molecular monitoring of Acute Myeloid Leukaemia utilizing very sensitive molecular assays. Molecular monitoring in the context of two national clinical trials in Acute Myeloid Leukaemia is ongoing. The assays involved are quantitative real-time PCR assays for leukaemia-associated or -specific transcripts which have the ability to detect minute levels of leukaemia not recognizable by morphologic assessment of bone marrow. Clinically relevant assay algorithms for risk adapted therapy based on results are being developed.
PwC Foundation Leukaemia and Lymphoma Tissue Bank

A joint initiative of the Leukaemia Foundation and the Australasian Leukaemia and Lymphoma Group.

The Australasian Leukaemia and Lymphoma Group Tissue Bank is a national facility located within QHPS Laboratories at the Princess Alexandra Hospital. Specimens of blood, bone marrow and/or other biopsy material from patients with haematologic malignancies are collected and stored in the Tissue Bank. Samples are linked to a detailed clinical trials data base, providing an invaluable tool for translational research. The aim is to facilitate a wide range of laboratory based research augmenting the benefits of clinical research. The goals are to improve understanding of the processes leading to the development of haematologic malignancy and factors which govern the variable response to current treatments and ultimately to hasten the development of more effective therapies for patients suffering from haematologic malignancy.

The Tissue Bank holds specimens systematically collected from a wide range of clinical trials being undertaken by the Australasian Leukaemia and Lymphoma Group, as well as non-trial patient samples. A range of research is being supported by samples from the Tissue Bank in laboratories around the country. Recent examples include:

- Identification of oncogenes from myeloid leukaemias by retroviral expression cloning (University of Queensland).
- EBPP study in acute promyelocytic leukaemia (Children’s Cancer Institute Australia).
- Investigation of homeobox gene expression in haematologic malignancies (The Walter and Eliza Hall Institute of Medical Research).
- Dynamic profiling of EBV specific CTL in Hodgkin’s lymphoma (Queensland Institute of Medical Research).
- Molecular profiling of acute myeloid leukaemia in adults by gene expression arrays (St. Vincent’s Hospital).

Following the award of a National Health and Medical Research Council Enabling Grant, 2006 has been a year of rapid expansion in the Bank. Staffing levels have increased and capacity to process samples both generically and specifically for individual studies has increased dramatically. Further expansion and development milestones will be reached in 2007.

Clinical Trials

The large clinical trials program continues to thrive. The Unit remains one of the leading Australasian contributor to national and International Co-operative Group Trials.

There are twenty-eight clinical trials open: nine leukaemias, fourteen lymphomas, five myelomas and amyloidosis. Princess Alexandra Hospital based haematologists remain leaders in their fields in clinical research as reflected by the trials listed below.

Investigator initiated national studies designed and authored from Princess Alexandra Hospital.

High dose cytosine arabinoside and fludarabine without anthracyline for core binding factor acute myeloid leukaemia. National multi-centre Phase II study. (Dr P Marlton ALLG AML M13).

A Phase II study of a modified HyperCVAD frontline therapy for patients with poor prognosis diffuse large B-cell lymphoma and peripheral T-cell non-Hodgkin’s lymphoma. (Dr P Marlton ALLG NHL 11).

Treatment of patients with Post-Transplant Lymphoproliferative Disorder (PTLD) with a sequential treatment consisting of anti-CD20 antibody Rituximab and CHOP + GCSF chemotherapy PTLD1.

A Phase II study of risk-adapted IV Melphalan in patients with AL amyloidosis ALLG MM8.

Multicentre International Trials with Australasian Principal Investigator based at Princess Alexandra Hospital

Randomized 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 randomized maintenance treatment with rituximab. (Dr D Gill ALLG NHL 13).

Follow up observational study of the randomised intergroup trial of first line treatment for patients with diffuse large B-cell NHL with a CHOP-like chemotherapy regimen with or without the anit-CD20 antibody rituximab. (Dr D Gill ALLG NHL19).

Financial Support

Educational grant of $130,000 for the inaugural international meeting - New Directions in Leukaemia Research (D Gill, T Gonda).

Grants

$300,000 National Health Medical Research Council. ALLG National Leukaemia Lymphoma Tissue Bank. Grant (Dr P Marlton) ALLG.

$50,000 Leukaemia Foundation of Australia. Molecular assessment of Core Binding factor. AML in conjunction with ALLG AML-M13 trial. Grant (P Marlton) ALLG.

$5,000 LFA. High Dose cytabrabine therapy without
anthracycline in CBF, AML, ALLG, AML-M13 Trial. Grant (P Marlton).

$107,000 Leukaemia Foundation of Australia. ALLG National Leukaemia Lymphoma Tissue Bank. Grant (P Marlton) ALLG.

$6,000 Leukaemia Foundation. MM8. Grant (P Mollee) ALLG.

$103,000 Leukaemia Foundation Queensland. Grant (P Mollee).

$50,000 PA Foundation. Amyloidosis – connective tissue disease. Grant (P Mollee).


$10,000 PA Foundation. Cancer Stem Cells (AML). (T Gonda, D Gill).

$36,000 Viral and Immune bio markers in EBV lymphomas. Grant (M Gandhi, D Gill).

$5,000 Amgen. MM8. Grant (P Mollee) ALLG.

$5,000 Roche. PTLD1. Grant (P Mollee) St Vincents, Sydney.

$18,000 SERTF. LAG 3 in Follicular lymphoma. Grant (P Mollee).

$6,000 AMGEN. High Dose cytabrabine therapy without anthracycline in CBF, AML, ALLG, AML-M13 Trial. Grant (P Marlton).

Other Support

Total amount of funding from pharmaceutical industry for Haematology Clinical Trials in 2006 was $137,448.89.

Publications

16 journal articles
11 abstracts
6 articles in press

Lectures and Presentations

Dr Peter Mollee
AL Amyloidosis. HSANZ/ANZSBT/ASTH Combined Annual Scientific Meeting, Hobart.

Dr Devinder Gill
DNA microarray profiling to reveal patient outcome in chronic lymphocytic leukaemia. 2006 New Directions in Leukaemia Research Conference, Australia (Oral Presentation).

Protein Kinase R in Chronic Lymphocytic Leukaemia. 2006 New Directions in Leukaemia Research Conference, Australia (Oral presentation).

Haematologic Research at Princess Alexandra Hospital. Princess Alexandra Hospital Week.

Mr Russell Saal
Minimal residual disease in AML.

Guest Speakers

Dr Hagenbeek. Professor of Haematology in the Academic Medical Centre of the University of Amsterdam and the UMCU - Current treatment of follicular lymphoma.

Professor James Ito. Director of Department of Infectious Diseases, City of Hope National Medical Centre - Approach to the Management of Invasive Fungal Infections in Hematopoietic Cell Transplantation.

Dr Donna Webber. MD Anderson Cancer Centre – An Update on Myeloma Management;

Dr O Cornely. Klinikum der Johannes Gutenberg-Universitat – Posaconazole prophylaxis in AML.


Professor Keth Stewart. Department of Medical Oncology, Princess Margaret Hospital, University Health Network; Ontario Cancer Institute, University Health Network; McLaughlin Centre for Molecular Medicine, University of Toronto, Toronto, Ontario, Canada - Multiple Myeloma update.

Awards

Dr Maher Gandhi
Ramaciotti Award $30,000

RACP CSL Award: $50,000

Public Service Relevant to Research

Dr Devinder Gill
Member, Asia Pacific T cell Advisory Board.

Executive Member, Australasian Leukaemia and Lymphoma Group.

Chair, Aggressive Lymphoma Group (Clinical Trials - Australasian Leukaemia and Lymphoma Group).

Founding Member of Australasian Chronic Lymphocytic Leukaemia Research Group.

Member, Medical Advisory Committee Leukaemia Foundation of Queensland.

Member, Princess Alexandra Hospital Research Committee.

Research Fellow, Centre for Immunology and Cancer Research, Princess Alexandra.

PhD Reviewer University of Monash.

Dr Paula Marlton
NHMRC Grant Reviewer.
Leukaemia Foundation of Australia Grant Review Panel.
National Medical Advisory Committee Leukaemia Foundation of Australia.
State Medical Advisor and Board Member Leukaemia Foundation of Queensland.
Medical Journal of Australia Reviewer.
Australia and New Zealand Medical Journal Reviewer.

Dr Peter Mollee

Member, Princess Alexandra Hospital Human Research Ethics Committee Scientific Review Subcommittee.

Dr Robert Bird
Chairman, Queensland Fresh Blood & Blood Products Expert Advisory Panel.
Australia and New Zealand Journal of Obstetrics and Gynaecology Reviewer.
Member, Queensland Blood Board.

Dr Tony Mills
Chair, Brisbane Haematology Group.

Mr Russell J Saal
Reviewer Leukaemia and Lymphoma.
The Hypertension Unit conducts internationally recognised clinical research into the pathogenesis and management of hypertension, especially of endocrine forms. Working with its sister Unit, the Greenslopes Hospital Hypertension Unit, 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 the 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 strengthening of its research collaboration into the genetics of primary aldosteronism with Dr David Duffy and Dr Grant Montgomery, both from the Queensland Institute of Medical Research.
- Ongoing Project Grant funding from the National Health and Medical Research Council to conduct further research into the genetics of primary aldosteronism.
- Significant progress has been made to elucidate the genetic basis of primary aldosteronism. Previous work performed by the Greenslopes Hospital Hypertension Unit, of which the Director of the Princess Alexandra Hospital Hypertension Unit is also a senior member and was Director in 2006, involving one large family with primary aldosteronism, identified a region within the family members’ DNA which probably contains the abnormal gene. Recent work performed 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. By studying the original large family in more detail, Dr So has been able to significantly shorten the region of DNA that must be searched to

Associate Professor Michael Stowasser and Team
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 has centred on refining this region using single nucleotide polymorphism analysis in order to gradually hone in on the responsible gene and direct sequencing of candidate genes. This work has the potential to lead to new tests that will make it much easier to identify people with this condition, so they can be given specific and often curative treatment. It will also increase understanding as to how primary aldosteronism initially develops.

Dr Norlela Sukor, an Endocrinologist from Kuala Lumpur, commenced her PhD studies within the Unit on the genetics of primary aldosteronism.

Work in collaboration with Professor Tom Marwick and Dr Jim Sharman within the Cardiovascular Imaging Research Group at Princess Alexandra Hospital, funded by the National Heart Foundation, is focussing on the effects of aldosterone blocking medical treatment in people with exercise-induced hypertension.

Mr Paul Taylor commenced his PhD studies to develop a new, highly accurate method of measuring aldosterone hormone in clinical samples using the technique of high performance liquid chromatography-mass spectrometry. This work is being funded by a highly competitive grant awarded by the Golden Casket Foundation.

Associate Professor Michael Stowasser undertook three months of sabbatical studies in Italy, hosted by Associate Professor Francesco Fallo at the University of Padova, during which important new collaborative research projects between the Unit and both Associate Professor Fallo and Dr Paolo Mulatero (University of Torino) were initiated.

The Unit established its own clinic area, which was previously housed in the Diabetes and Endocrinology area (by the kind permission of Professor John Prins and Dr Tony Russell).

The Clinical Centre of Research Excellence in Cardiovascular Disease and Metabolic Disorders at Princess Alexandra Hospital, for which the Princess Alexandra Hospital Hypertension Unit’s Director is a Principal Investigator, received renewed funding from the National Health and Medical Research Council for a further five years.

Associate Professor Stowasser was invited to join an international Task Force sponsored by the US Endocrine Society to develop clinical guidelines for the diagnosis and management of primary aldosteronism.

Current Research Activities

Associate Professor Stowasser has seventeen 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 Unit is the only clinical unit within the Queensland public sector 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 Unit was the first to demonstrate that primary aldosteronism is approximately ten times more common than previously thought. The combined Greenslopes Hospital and Princess Alexandra Hospital Hypertension Units have the largest number of patients (currently over 1300) 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 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 Unit is involved in collaborative research with the Queensland Institute of Medical Research, the National Institutes of Health, Bethesda and the Mount Sinai School of Medicine, 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

Current NHMRC Grants

$400,000. Establishment of a Clinical Centre of Research Excellence in Cardiovascular Disease and Metabolic Disorders. (Marwick T, Prins J, Shaw J, Stowasser M, Johnson D, Beller E, Coombes J).

$84,750. Genetics of primary aldosteronism. Project Grant (Stowasser M, Gordon R, Duffy D).

Other Grants


Other Support

Irene Hunt Hypertension Research Fund - established in 2000 following a bequest of approximately $1.3 million by a grateful patient of the Greenslopes Hospital Hypertension Unit 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

3 journal articles
4 abstracts
2 book chapters
1 article in press

Lectures and Presentations


Sharman JE, Stowasser M, Holland DJ, Marwick TH. Identification of individuals most likely to benefit from non-invasive central blood pressure monitoring. 28th Scientific Meeting of the High Blood Pressure Research Council of Australia, Brisbane, December. (Poster).


So A, Y Jeske, RD Gordon, D Duffy, L Kelemen, M Stowasser. Narrowing the area of linkage of familial hyperaldosteronism type II and examination of two candidate genes (RBaK and PMS2) in this region. 32nd International Aldosterone Conference, Boston, June. (Oral presentation).


Post Graduate Students

Dr Albertina So, PhD, in progress
Dr Norlela Sukor, PhD, in progress
Paul Taylor, PhD, in progress

Public Service Relevant to Research

Associate Professor Michael Stowasser

Member, Primary Aldosteronism Guidelines Taskforce, US Endocrine Society (since 2006).

Member, Blood Pressure and Vascular Disease Advisory Committee for the National Heart Foundation of Australia (since 1998).

Member, Editorial Board for Clinical and Experimental Physiology and Pharmacology (since 1998).

President, Queensland Hypertension Association (since 1995).

Reviewer, National Heart Foundation of Australia Clinical Research Scholarship applications.

Member, Grant Review Panel, National Health and Medical Research Council.

Infection Management Services

The Infection Management Services (Southern Queensland) 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 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 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.
- Particular interest in both community and hospital-acquired Methicillin-resistant Staphylococcus aureus and the 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 Phase 3, Randomised, Double-Blind, Multinational Trial of Intravenous Televancin versus Vancomycin for Treatment of Complicated Gram-Positive Skin and Skin Structure Infections with a focus on Patients with Infections due to Methicillin-resistant Staphylococcus aureus.

The Australian Community-Acquired Pneumonia Study.

A Phase 1b multi-centre study of CICRVAX6 HPV6L1 VLPs as therapy for genital warts.

Other Research

Development of statistical and epidemiological methods for the early detection of adverse infective events of healthcare related infection.

Epidemiology pathogenicity treatment and resistance development and community acquired Methicillin-resistant Staphylococcus aureus infections.

Statistical analysis and epidemiological assessment of fungal and yeast infections in the intensive care setting.

Staff

Dr Michael Whitby,
Director

Dr David Looke,
Consultant, Infectious Diseases

Dr Wendy Munckhof,
Consultant, Infectious Diseases

Dr Geoffrey Playford,
Consultant, Infectious Diseases

Dr David Jardine,
Senior Medical Officer, Sexual Health

Dr Cheryn Palmer,
Senior Medical Officer, Sexual Health

Visiting Medical Officers

Dr Tony Morton,
Consultant Statistician

Centres for Health Research Annual Review 2006
Mathematical modelling of multi-resistant organism transmission in healthcare institutes.

Pharmoeconomics of home intravenous therapy.

Behaviour in healthcare workers – needlestick injury and handwashing.

Publications
25 journal articles
10 abstracts
4 book chapters

Post Graduate Students
Karen Taylor, M App Sci, in progress
Gail Neilson, PhD, in progress

Kanchanamala Ranasinghe, PhD, in progress
Brahmaputra Marjadi, PhD, in progress

Public Service Relevant to Research

Dr David Looke
Therapeutic Guidelines: Antibiotic — Member of Editorial writing Group.
Pathology – Editorial Board.

Dr Michael Whitby
International Journal of Infectious Diseases – Editor for South East Asia and Australasia.
The Intensive Care Unit continues to increase its contribution at a national and international level of critical care research. Growth and development is reflected in the Unit’s involvement in an increasing number of national and multinational clinical trials, increased nursing research activities, appointment of a Chair of Critical Care Nursing, promotion of the Director of Research to Professor, Division of Anaesthesiology and Critical Care, University of Queensland and the successful application for research funding including a National Health and Medical Research grant supporting a multicentre Intensive Care study.

This expansion results from the hard work and enthusiasm of the research staff and the significant support which comes from the overall Intensive Care Unit team.

Current Research Activities

Clinical Trials

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

“The early Nasojejunal Tube to meet energy requirements in intensive care study: A multi-centre randomised controlled trial comparing early jejunal feeding (using a frictional nasojejunal tube) and standard feeding in critical illness. ENTERIC.

Multicentre, unblinded, randomised, controlled trial to assess the effect of augmented vs. normal Continuous Renal Replacement Therapy (CRRT) on 90-day all-cause mortality of intensive care unit patients with Severe Acute Renal Failure (ARF)” RENAL.

Venticute® (rSP-C Surfactant) in patients with pneumonia or aspiration of gastric contents leading to intubation, mechanical ventilation, and severe oxygenation...
impairment (VALID Study). A randomised, multinational, multicentre, parallel group, double blind, control group study.

The continued use of Atorvastatin in Sepsis trial. A phase II randomised, controlled trial in patients on statin therapy who develop sepsis to evaluate the effect of continued atorvastatin use on the incidence of severe sepsis (CAS).

Study of risk assessment to reduce cardiac events in patients following major surgery (STRATIFY).


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

Assessment of medical and nursing handover during critical care ward rounds.

The use of echocardiography of the left ventricular load during anaesthesia and ventilation. Assessment of fluid responsiveness of patients following coronary artery bypass grafting.

Echocardiographic features of myocardial dysfunction in severe sepsis. A retrospective, blinded, case controlled study.

Comparison of brain natriuretic peptide and tissue Doppler imaging in the prediction of fluid responsiveness in septic shock.

Comparison of predictive value of brain natriuretic peptide, troponin and tissue Doppler imaging in the prognosis of septic shock.

CSF Magnesium. An investigation into the correlation between serum and CSF levels of magnesium administered after aneurysmal subarachnoid haemorrhage. The effectiveness of family-centred-care as a model for best practice nursing in adult ICUs.

Testing a home-based rehabilitation program for survivors of a critical illness: a randomised controlled trial.

**Other Research**

Traumatic injury: Management of recovery and the prediction of well-being.

Benchmarking trauma care performance in a tertiary hospital in Queensland to European Trauma Centres: Using the European Trauma Registry as a model.

Optimal antibiotic dosing in animal models of burns (laboratory trial).

Development of an experimental intensive care facility (laboratory trial).

The experimental intensive care facility has been used to refine acute and chronic models of sepsis. Available techniques include inhalational, intravenous and intraperitoneal anaesthesia, mechanical ventilation, arterial and venous pressure monitoring and transthoracic echocardiography (laboratory trial).

**Financial Support**

$52,000 NHMRC Testing a home-based rehabilitation program for survivors of a critical illness: a randomised controlled trial. Project Grant (Elliott D, McKinley S, Allison J, Aitken L, King M) University of Technology Sydney; University of Sydney; Griffith University.
$96,000 CONROD Traumatic Injury: the management and prediction of early recovery. Collaborative Grant (Kendall E, Chaboyer W, Aitken L, Bellamy N) Griffith University, University of Queensland.

Publications
20 journal articles
3 abstracts
2 book chapters
2 articles in press

Lectures and Presentations

Dr Peter Kruger
Hypermanganesaemia observed in patients receiving home parenteral nutrition (pn) with or without cholestasis. A Ali, A Murdock, A Pascoe, K Murrell, P Kruger. Accepted for presentation by A Ali at the AUSPEN national meeting. Sydney, November.

Statins – more than lipid lowerers. Presented at the Critical Care Science Meeting, Brisbane, August.

Statins – The next anti-endotoxin. Joint Faculty of Intensive Care Annual Scientific Meeting, Melbourne, June.

Professor Bala Venkatesh

Epidemiology of head injury in Australasia. International Congress of Emergency and Critical Care Medicine, Brussels, March.

Transcranial Doppler in critical illness. International Congress of Emergency and Critical Care Medicine, Brussels, March.

Quality of information on the internet. International Congress of Emergency and Critical Care Medicine, Brussels, March.

Do we need strong ion difference. International Congress of Emergency and Critical Care Medicine, Brussels, March.

Data Interpretation in critical care medicine: Philosophy and pitfalls. 4th Indo-Australian Critical Care Medicine Refresher Course, Goa, India, November.

Intensive Care Examination. 4th Indo-Australian Critical Care Medicine Refresher Course, Goa, India, November.

Communication in intensive Care. 4th Indo-Australian Critical Care Medicine Refresher Course, Goa, India, November.

Biochemical Data interpretation in Critical Illness 3rd Indo-Australian Critical Care Medicine Refresher Course, Goa, India, November.

Role of steroids in sepsis – JFICM ASM June, Melbourne.

Tissue lactate in critical illness. 3rd Critical Care science Symposium, Brisbane, August.

Steroids in critical illness. 3rd Critical Care science Symposium, Brisbane, August.

Dr David Sturgess

Advances in respiratory and critical care medicine session: Prediction of haemodynamic changes with fluid loading in ICU patients. Princess Alexandra Hospital Week, 22nd August.


Ms Debbie Carney
Developing a strategy to incorporate evidence into practice. Queensland Health Annual Scientific Meeting.

Post Graduate Students

K Ranasinghe, PhD, in progress
Peter Kruger, PhD, in progress
Leanne Jack, PhD, in progress
Jeremy Cohen, PhD, in progress

Public Service Relevant to Research

Professor Leanne Aitken
Associate Editor, Australian Critical Care.

Editorial Panel Member, Collegian.


Grant Reviewer, Royal College of Nursing, Australia; Queensland Health, Queensland Nursing Council.

Member, International Advisory Panel, Royal College of Nursing (UK) Research Conference.

Professor Bala Venkatesh
Co-convenor, 3rd Critical Care Science Symposium, Brisbane, August.

Convenor, 9th Australian Intensive Care Medicine Refresher Course, September.

Chairman, General Fellowship Examination in Intensive Care.

Examiner, Fellowship of the Joint Faculty of Intensive Care Medicine.
Examiner, Fellowship of the College of Critical Care Medicine, India.

Professor, Division of Anaesthesiology and Critical Care, University of Queensland.

**Dr Peter Kruger**

Peer Review, Anaesthesia and Intensive Care.

Examiner in Pharmacology for the Primary Examination, Australian and New Zealand College of Anaesthetists, 2005 onwards.


Examiner, Joint faculty of Intensive Care Primary Examination.

Senior Lecturer, Department of Anaesthesiology and Critical care, University of Queensland, July 2000 onwards.

Senior Lecturer, Department of Epidemiology and Preventative Medicine, Monash University, Melbourne, November 2006 onwards.

**Dr David Cook**

Peer Review, Anaesthesia and Intensive Care, Chest, Critical Care Medicine.

Co-opted Scientific Member, ANZICS Database Management Committee.

Editorial Board, Critical Care Medicine.

**Associate Professor Chris Joyce**

The Internal Medicine Department has continued to pursue important research into quality improvement science, optimisation of acute cardiac care, efficacy of chronic disease management strategies and pay-for-performance programs, use of administrative data for public reporting of hospital outcomes and validation of risk-adjusted mortality prediction rules based on coded data.

Current Research Activities

Clinical Trials
Randomised trial of different hypolipidaemic treatments in at-risk patients with hyperlipidaemia classified according to absorber and synthesiser phenotype (Target LDL Trial).

Other Research
Review of literature aimed at identifying risks and opportunities of public reporting of hospital outcomes based on administrative data.

Validation study of variable life-adjusted life displays based on administrative data against clinical risk prediction models in patients with acute myocardial infarction.

Systematic review of efficacy studies and success factors in pay-for-performance programs and their application to Australian settings.

Evaluation of use of audit and feedback, clinical guidelines and incentives support in improving quality of care of patients admitted to twenty-one Queensland hospitals with acute cardiac conditions.

Narrative meta-review of efficacy studies of chronic disease management strategies relating to six common chronic diseases.
Cochrane systematic review of efficacy of routine invasive versus conservative management strategies in patients admitted with acute coronary syndromes.

Review of commonly encountered examples of clinical misinterpretation of studies of diagnostic tests.

Review of the evolving science of translating research evidence into clinical practice.

Development of guidelines for epilepsy management in adults with intellectual disability.

Development of position statement on the hospital care of adults with intellectual disability.

Financial Support

$250,000 Queensland Health. Improving quality of care of patients hospitalised with acute cardiac conditions, Queensland Health, Project grant (IA Scott, PH Derhy, D O’Kane, KH Lindsay, H Atherton, Members of the Cardiac Collaborative).

Publications

10 journal articles

Lectures and Presentations

Associate Professor Ian Scott

Strengths and Limitations of Current Clinical Networks. Presentation to QH Clinical Services Networks Planning Day, Brisbane, January 31. (Invited speaker)

Evidence versus hype – Informing better prescribing. Presentation to National Prescribing Service Workshop on Better Prescribing, Brisbane, March 25. (Invited speaker)


Using clinical indicators to optimise quality of care. RACP Annual Congress, Cairns, May 10. (Invited speaker)

Using research evidence to inform clinical practice: a retrospective and look into the future. Using clinical indicators to improve quality of care. Presentations as Visiting Professor to Box Hill Hospital, Melbourne, June 15, 16. (Invited speaker)

Chronic disease management: What is it and what’s all the fuss about? Presentation to the Brisbane South Integrated Care Workshop on Chronic Disease Management, Brisbane, July 25. (Invited speaker)

The leaky pipe of evidence translation to clinical practice. Medical Grand Rounds presentation, PAH, July 31. (Invited speaker)

The smart use of IT to monitor, evaluate and inform clinical practice in cardiac care. Presentation to the CRE in Patient Safety Seminar – The role of IT in improving patient safety. Royal Melbourne Hospital, Melbourne, August 7. (Invited speaker)

Update on ACS and CHF clinical indicators; Prioritising access to PCI in ACS; Future directions of the Cardiac Collaborative. Presentations to the Cardiac Collaborative 7th Forum, Royal Brisbane Hospital, Brisbane, August 11. (Invited speaker)

Power to the people – Achieving better care with multi-site collaborations; Using MAPUs to expedite patient care and reduce access block; Mismatching of treatment intensity with level of risk in patients with acute coronary syndromes. Presentations to PAH Annual Hospital Week, Brisbane, August 21-25. (Invited speaker)


Use of clinical indicators in improving palliative care services. Presentation to Clinical Indicator Workshop, ANZSPM Annual Scientific Meeting, Newcastle, October 4. (Invited speaker)

The leaky pipe of evidence translation to clinical practice; Mismatching of treatment intensity with level of risk in patients with acute coronary syndromes. Presentations to the North Queensland Physicians Conference, Cairns, September 1. (Invited speaker)

Mismatching of treatment intensity with level of risk in patients with acute coronary syndromes. Presentation to the New Zealand RACP/IMSANZ/ANZSN Scientific Meeting, Queenstown, September 21.

Use of clinical indicators in real-world environments. RACP Workshop on Clinical Indicators, Sydney, November 10. (Invited speaker)

Mismatching of treatment intensity with level of risk in patients with acute coronary syndromes. Presentation to the Queensland Health Annual Scientific Meeting, Brisbane, November 23.
Dr Robyn Wallace
Making room for the young adult patient with intellectual disability in the adult hospital setting. Royal Children’s Hospital Grand Rounds, Brisbane, June. (Invited speaker)

About specialist healthcare for young adults with intellectual disability. Mater Children’s Hospital Weekly Clinical Meeting, Brisbane, August. (Invited speaker)

Diagnostic and management challenges in two cases of adult patients with intellectual disability in the hospital setting, Princess Alexandra Hospital Grand Rounds, Brisbane, July.

On the science of thinking & cognition in intellectual disability, Australian Doctors in Developmental Disability Medicine Annual Conference, Sydney, November.

Bits and pieces on healthcare for adults with intellectual disability. Occupational Health State Seminar, Brisbane, October. (Invited speaker)

Awards

Associate Professor Ian Scott
Best Presentation in Clinical Practice - Queensland Health Annual Scientific Meeting, Brisbane, November 24, 2006 for presentation: Mismatching of treatment intensity with level of risk in patients with acute coronary syndromes.

Dr Robyn Wallace

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 and Safety Board, Queensland Health.
Chair, CPIC Cardiac Collaborative, Queensland Health.
Member, Better Practice Co-ordinating Committee, Royal Australasian College of Physicians.
Chair, Evidence-based Medicine Working Group of the Internal Medicine Society of Australia and New Zealand.
Chair, IMSANZ/RACP 2006 Annual Scientific Meeting Organising Committee, Royal Australasian College of Physicians.
Expert reviewer, Queensland Health Research Ethics Committee.

Dr Robyn Wallace
Member of the IASSID working body to review the guidelines for epilepsy management in adults with intellectual disability, headed by Professor Mike Kerr, Cardiff.
Reviewer of manuscripts submitted to journals: Journal of Intellectual Disability Research, JARID.
Committee member of Australian Doctors in Developmental Disability Medicine.
Committee member of Quality of Complaints Management in Disability Services Queensland.
Liver Research Group

Staff

Senior Staff
Associate Professor Elizabeth Powell,
Gastroenterologist and Director of Clinical Training, Princess Alexandra Hospital and Associate Professor of Medicine, University of Queensland, Southern Division.

Dr Julie Jonsson,
Sasakawa Senior Research Fellow,
University of Queensland, Southern Division, Princess Alexandra Hospital

Associate Professor Andrew Clouston,
Pathologist and Associate Professor of Pathology, University of Queensland, Southern Division

Postdoctoral Research Fellow
Dr Scott Ward

Research Assistants
Ms Helen Barrie,
Scientist

Ms Phoebe Thwaites

Research Students
Ms Meagan Walsh,
PhD

Ms Michelle Richardson,
PhD

Dr Stuart McPherson,
MD

The Liver Research Group 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 10 years, for others it may take 30-40 years. The 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:

- determining the relationship between body mass index, liver fat and fibrosis progression and response to treatment in chronic HCV and other chronic liver diseases.
- defining the role of hepatocyte senescence, hepatic progenitor cells and the ductular reaction in promoting fibrogenesis in human liver disease.
- and defining the role of the renin angiotensin system in hepatic fibrosis caused by chronic Hepatitis C infection and non-alcoholic steatohepatitis.

Key achievements included:

Prize to M Richardson and A Clouston for an abstract presented at the Australasian Division of the International Academy of Pathology, Sydney.

The appointment of Dr Scott Ward (Postdoctoral Fellow).

Invited lecture given by Dr Elizabeth Powell at the 12th International Symposium on Viral Hepatitis and Liver Disease, Paris, France.

The continuation of international collaborations with Dr Herbert Tilg, University of Innsbruck, Dr Elizabeth Brunt, University of St Louis and Drs C Balabaud and P Biouliac-Sage, Bordeaux.

Award of a Queensland Clinical Research Fellowship to Dr Powell.

Current Research Activities

Clinical Trials
Non-invasive assessment of hepatic steatosis by magnetic resonance imaging and spectroscopy (collaboration with the Radiology Department, Princess Alexandra Hospital and the Centre for Magnetic Resonance, The University of Queensland).

Effect of weight loss on liver protein expression and response to antiviral therapy in patients with chronic Hepatitis C (collaboration with Nutrition and Dietetic Services, Princess Alexandra Hospital).

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.

Investigation of the role of hepatocyte senescence, hepatic progenitor cells and the ductular reaction in promoting fibrogenesis in human liver disease.

Financial Support

Current NHMRC Grants
$56,625. Practitioner Fellowship (Powell E)

$138,125. The role of steatosis in promoting cellular injury and fibrogenesis in human liver. Project Grant (Powell E, Jonsson J, Clouston A)

Other Grants
$95,000 RCH / Sasakawa. Senior Research Fellowship (Jonsson J).

$10,000 PA Foundation. Effect of weight loss on liver protein expression and response to antiviral therapy in patients with chronic Hepatitis C (Powell E).

$10,000 PA Foundation. The role of hepatic progenitor cells and a ductular reaction in progression of NAFLD (Jonsson J).

$20,000 RCH. Role of regulatory T cells in liver transplant acceptance in children (Ward S).

$43,000 University of Queensland Mayne Bequest Fellowship. (Ward S).

$38,000 University of Queensland Fellowship. (Ward S).

Publications

3 journal articles

Lectures and Presentations

Dr Elizabeth Powell
12th International Symposium on Viral Hepatitis and Liver Disease, Paris, France.

Dr Andrew Clouston
Australian Liver Association Workshop, Australian Gastroenterology Week, Adelaide.

Dr Julie Jonsson
Princess Alexandra Hospital Week.

Lions Laboratory Tours.

Post Graduate Students

Meagan Walsh, PhD, in progress

Michelle Richardson, PhD, in progress

Stuart McPherson, MD, commenced

Public Service Relevant to Research

Dr Elizabeth Powell
Steering Committee of the Immunovirology Research Network.


Assessor, NHMRC project grants.

Dr Julie Jonsson
Chairperson or panel member of review panels for several confirmations of candidature for postgraduate students at the University of Queensland, School of Medicine, Southern Division.


Assessor, NHMRC project grants.

Judging committees for the IPRS and APA.
The Medical Oncology Department has continued to perform a number of clinical studies with local, national, and international collaborations in Phase I, II and III trials. These studies have included trials into new drugs, new uses for older drugs and combinations particularly with radiation therapy. Diseases included breast cancer, GIST tumours, melanoma, colorectal cancer, lung cancer, oesophageal cancer, head and neck cancer, gastric cancer and skin cancer and antiemetics.

Dr Guminski has continued his laboratory based research in the Role of the Histone deacetylase inhibitor valproic acid in head and neck squamous cell carcinoma and mechanisms of action. This project has been undertaken in the laboratory of Associate Professor Nicholas Saunders and conducted by Dr Rafael Behrig, Postdoctoral Researcher.

Current Research Activities

Clinical Trials

Breast

A Phase III Study to Evaluate Letrozole as Adjuvant Endocrine Therapy for Postmenopausal Women with Receptor (ER and/or PgR) Positive Tumours.

An Intergroup Phase III Trial to Evaluate the Activity of Docetaxel, Given Either Sequentially or in Combination with Doxorubicin, Followed by CMF, in Comparison to Doxorubicin Alone or in Combination with Cyclophosphamide, Followed by CMF, in the Adjuvant Setting Treatment of Node-Positive Breast Cancer Patients.

A Multicenter Phase III Randomized Trial comparing Docetaxel in combination with Doxorubicin and Cyclophosphamide (TAC) versus Doxorubicin and Cyclophosphamide followed by Docetaxel (AC-T) as Adjuvant Treatment of Operable Breast Cancer Her2neu Negative Patients with Positive Axillary Nodes.
Multicenter Phase III Randomized Trial comparing Doxorubicin and Cyclophosphamide followed by Docetaxel (AC-T) with Doxorubicin and Cyclophosphamide followed by Docetaxel and Trastuzumab (AC-TH) and with Docetaxel, Platinum salt and Trastuzumab (TCH) in the Adjuvant Treatment of Node Positive and High Risk Node Negative Patients with Operable Breast Cancer containing the Her2neu Alteration.

The Contribution of Genotype to Cognitive Dysfunction after Cytotoxic Drug Treatment for Breast Cancer.

Highly Emetogenic Chemotherapy Diary Study.

Randomised Phase II-III Study of First Line Hormonal Treatment for Metastatic Breast Cancer with Exemestane or Tamoxifen in Postmenopausal Patients.

**Colorectal**

A Clinical Trial Comparing Oral Uracl/Ftorafur (UFT) plus Leucovorin (LV) with 5-Fluorouracil (5-FU) plus LV in the Treatment of Patients with Stage II and III Carcinoma of the Colon.

A Clinical Trial Comparing 5-Fluorouracil (5-FU) Plus Leucovorin (LV) and Oxaliplatin with 5-FU with LV for the Treatment of Patients with stages II and III Carcinoma of the Colon.

A Randomised, Double-Blind, Placebo-Controlled, Phase III Study in Patients with Metastatic Adenocarcinoma of the Colon or Rectum who are Receiving First-Line Chemotherapy with Oxaliplatin/5-Fluorouracil/Leucovorin and PTK787/ZK 222584 or Placebo.

Treatment with Chemotherapy Before and After Surgery versus Surgery in Liver Metastases from Colorectal Cancer.

A Randomized Phase II-III Study to Evaluate the Role of Mitomycin C, Avastin and Xeloda in Patients with Metastatic Colorectal Cancer.

A Randomised, Multicentre Phase III Study to Compare the Efficacy of Panitumumab in Combination with Chemotherapy to the Efficacy of Chemotherapy Alone in Patients with Previously Treated Metastatic Colorectal Cancer.

**Head and Neck**

Phase III Randomised Trial of Concomitant Radiation, Cisplatin and Tirapazamine (SR259075) versus Concomitant Radiation and Cisplatin in Patients with Advanced Head and Neck Cancer.


Post-Operative Concurrent Chemoradiotherapy versus Post Operative Radiotherapy in High-Risk Cutaneous Squamous Cell Carcinoma of the Head and Neck.

Phase III Randomised Trial of Concomitant Radiation, Cisplatin and Tirapazamine (SR259075) versus Concomitant Radiation and Cisplatin in Patients with Advanced Head and Neck Cancer.

Valproic Acid in Recurrent Head and Neck Cancer - Assessment of Molecular Efficacy - Pilot Study.

**Liver**

A Phase I Study of Intra-arterial Clofazimine in Lipiodol Injection in Patients with Unresectable Primary Hepatocellular Carcinoma.

**Melanoma**

A Phase II Open Label, Single Arm Study To Evaluate the Efficacy, Safety, Tolerability and Pharmacokinetics of Tcilimumab in Patients with Advanced Refractory and/or Relapsed Melanoma.

An Open, Parallel Group, Multicentre Randomized Trial of the Combination of PaTrin-2 and Temozolomide versus Temozolomide Alone Given Orally Daily for Five Days Every Four Weeks in Patients with Advanced Melanoma who have Not Previously Received Systemic Chemotherapy.

A Phase II Study of PI-88 in Advanced Melanoma.

A Phase II Study of PI-88 with Dacarbazine in Patients with Metastatic Melanoma.

Phase III Study of Taxoprexin® Injection vs. Dacarbazine in Patients with Metastatic Malignant Melanoma.

**Pancreas**

Phase II Study of Fixed Dose Rate Gemcitabine-Oxaliplatin Integrated with Concomitant SFU and 3-D Conformal Radiotherapy for the Treatment of Localised Pancreatic Cancer.

**Respiratory**

A Randomised Phase II Study of Two Regimens of Palliative Chemoradiation Therapy in the Management of Locally Advanced Non Small Cell Lung Cancer.

**Upper Gastro-Intestinal**

A Randomised Phase II Study Evaluating a Weekly Schedule of Docetaxel with Cisplatin and 5-FU (wTCF) or Capecitabine (wTX) in Advanced Oesophago-gastric Cancer.

Phase II Study of Cetuximab (Erbitux) plus Weekly Docetaxel Chemotherapy in Docetaxel Refractory Patients with EGFR Positive Advanced Oesophago-gastric Cancer.

A Phase III Randomized, Intergroup, International Trial Assessing the Clinical Activity of STI-571 at two dose levels
in patients with Unresectable or Metastatic Gastrointestinal Stromal Tumours (GIST) Expressing the KIT Receptor Tyrosine Kinase (CD117).

Phase II Study of Weekly Oxaliplatin with Continuous Infusion 5-Fluorouracil and Concurrent Radiation for Treatment of Localised Oesophageal Carcinoma.

A Randomised Phase II Study of Preoperative Chemotherapy Versus Preoperative on Therapy for Resectable Carcinoma of the Oesophagus or Gastro-Oesophageal Junction.

A Randomised Phase III Study in Advanced Oesophageal Cancer to Compare Quality of Life and Palliation of Dysphagia in Patients Treated with Radiotherapy versus Chemoradiotherapy.

A Feasibility Study to Evaluate Adjuvant Chemoradiotherapy for Gastric Cancer.

Carer Study

Supportive Care

“The Experience of Becoming a Lay Carer for a Person with Cancer” Research Project by Letitia Burridge

Other Research

Role of the Histone deacetylase inhibitor valproic acid in head and neck squamous cell carcinoma and mechanisms of action. Project undertaken in the laboratory of Associate Professor Nicholas Saunders and conducted by Dr Rafael Behrig, Postdoctoral Researcher.

Financial Support

$18,600 Panitumumab. Amgen (Walpole E).
$4,150 Anti-CTL4A Phase 2. Pfizer (Thomson D).
$150 Confirm. Novotech (Walpole E).
$6,500 IBCSG 18-98 (BIG 1-98). ANZBCTG (Walpole E).
$3,200 IBCSG 20-98 (BIG 2-98). ANZBCTG (Walpole E).
$3,361.82 (PR88205). Progen Industries (Thomson D).
$27,004.75 Taxoprexin. Luitpold Pharmaceuticals (Walpole E).

Publications

7 journal articles
1 abstract
1 book chapter

Lectures and Presentations

“An Update in Oncology” 5th University of Queensland/ Gleaneagles Medical Centre Medical Update, Kuala Lumpur November.

Post Graduate Students

Dr Guminski is a supervisor with Associate Professor Nicholas Saunders, of the following post-graduate students:

Sarina Cameron, PhD, in progress
Kim Hanchard, PhD, in progress

Public Service Relevant to Research

Associate Professor Damien B Thomson
Editor Oncology, Internal Medicine Journal.

Dr Euan Walpole
QCF Senior Research Fellow Chair – Review Committee.
NSW Cancer Institute External Reviewer.
The Nephrology Department enjoys the best patient survival rates of any dialysis and kidney transplant centre in Australia and New Zealand. The Department performs over 110 renal transplants per year, more than any other unit in the Southern Hemisphere, and cares for approximately 600 established transplant patients and 420 dialysis patients. Each year, the Department provides over 20,000 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.

The University of Queensland Centre for Kidney Disease Research is based at the Princess Alexandra Hospital Nephrology Department and conducts a large number of research activities at both the clinical and basic science levels. The aim of clinical research is to further improve outcomes for patients with kidney disease. In 2004, the Department 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. Subsequently, the Department received a National Health and Medical Research Council Enabling Grant in 2005 to be able to run the Clinical Trials Network.

In 2003, the Cardiovascular, Metabolic and Renal Research Groups received funding for five years from the National Health and Medical Research Council as a “Centre of Clinical Research Excellence”. As a further endorsement by National Health and Medical Research Council, the Centre for Cardiovascular Research Excellence funding has been extended for an additional five years. There are over 100 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 Department’s research trials have earned national research awards (including the Australian Kidney Foundation Clinical Research Award and the Australian and New Zealand Society of Nephrology TJ Neale Award for “Outstanding Contributions to Nephrologic Science”) and prompted changes in clinical practice guidelines. The CKDR’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

#### Peritoneal Dialysis

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

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

A randomised, controlled trial of exit site application of MedihoneyTM Wound Gel for the prevention of catheter-associated infections in peritoneal dialysis patients. (Johnson DW, Hawley CM, Isbel NM).

A randomised controlled trial of oral HEMe iron polypeptide Against Treatment with Oral Controlled Release Iron Tablets for the correction of anaemia in peritoneal dialysis patients (HEMATOCRIT trial). (Johnson DW, Hawley CM).

Effect of PD modality on clinical outcomes in Australia and New Zealand. (Badve S, McDonald SP, Hawley CM, Johnson DW).

The impact of peritoneal small solute transport on peritoneal dialysis patient outcomes in Australia and New Zealand. (Johnson DW, McDonald S, Rumpsfeld M).

The impact of peritoneal transport status on subsequent haemodialysis patient outcomes in Australia and New Zealand. (Johnson DW, McDonald S, Rumpsfeld M).

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

Effect of dialysis modality on residual renal function decline in haemodialysis versus peritoneal dialysis patients. (Ng TG, Hawley CM, Johnson DW).

Predictors of recovery of dialysis-independent renal function in patients commencing peritoneal dialysis in Australia and New Zealand. (Johnson DW, McDonald SP, Craven AM).

Outcomes for scleroderma renal crisis in Australia and New Zealand. (Johnson DW, McDonald SP).


A retrospective observational cohort study assessing the clinical outcomes of amputation in dialysis patients. (Hawley C, Isbel N, Campbell SC, Johnson DW).
Haemodialysis


A randomised controlled trial of fludrocortisone for the treatment of hyperkalaemia in haemodialysis patients. (Johnson DW, Wiggins K, Kaisar OM).

A randomised, placebo-controlled trial of oxpentifylline on haemoglobin levels in patients with erythropoietin-resistant anaemia. (Johnson DW, Hawley CM).

The impact of nocturnal home haemodialysis on patient outcomes. (van Eps C, Hawley C, Isbel N, Campbell SB, Johnson DW).


Nutritional status and appetite regulation in alternate night nocturnal haemodialysis. (Van Eps C, Hawley C, Jeffries J).


Prognostic indices in post-transplantation lymphoproliferative disorders (PTLDs) after renal transplantation. (Hourigan MJ, Mollee PN, Gill DS, Johnson DW, Gandhi MK).

Safety of immunosuppression cessation during chemotherapy for Post-Transplantation Lymphoproliferative Disorders (PTLD) in Renal Transplant Patients. (Hourigan MJ, Mollee PN, Gill DS, Johnson DW, Gandhi MK).

A pharmacokinetic study of pre- versus post-haemodialysis dosing of aminoglycosides. (Teigen M, Duffull S, Johnson DW).

Contemporaneous outcomes of bacteraeas in haemodialysis patients. (Isbel N, Hawley C, Campbell SB, Johnson DW).

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 trial of intradermal hepatitis B vaccination in dialysis patients who have failed to seroconvert following standard subcutaneous vaccination. (Wiggins K, Van Eps C, Hothersall E, Johnson DW, Campbell SB, Isbel N, Playford G, Hawley C).

A double-blind, randomised, placebo-controlled study of an Oral Calcimimetic Agent (AMG073) in secondary hyperparathyroidism of End-Stage Renal Disease (ESRD) Subjects. (Johnson DW, Sudak J).

A placebo-controlled, double-blind, extension study to assess the long-term safety of an Oral Calcimimetic Agent (AMG073) in secondary hyperparathyroidism of End Stage Renal Disease. (Johnson DW, Sudak J).

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, Sudak J).
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) (Sudak J).

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).

A randomised, 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, 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, Pidcock R).

Pharmacokinetic and pharmacodynamic investigation of free mycophenolic acid and its glucuronide metabolite in renal transplant recipients. (Atcheson BA, Taylor PJ, Mudge DW, Johnson DW, Pillans PI, Tett SE).

Outcomes of kidney transplant recipients on warfarin at time of transplant. (Wong JS, Campbell SB, Hawley CM, Johnson DW, Mudge DW, Isbel NM.)

A formula for the prediction of renal allograft function following renal transplantation. (Mudge DW, Hawley C, Isbel N, Campbell SB, Johnson DW, Nicol DL.).

Outcomes associated with live donor renal transplantation in Queensland. (Campbell SB, Isbel N, Hawley CM, Nicol DL., Johnson DW).

A randomised controlled trial of Sirolimus on skin cancer incidence in renal transplant recipients. (Campbell SB, Isbel N, Hawley CM, Nicol DL, Johnson DW).


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 (Rapamune) in solid organ transplant recipients.

A randomized, open label, comparative evaluation of conversion from calcineurin inhibitors to sirolimus versus continued use of calcineurin inhibitors in renal allograft recipients.

A 1 year multicentre, randomized, open label parallel group study of the safety, tolerability and efficacy of two doses (1.5 and 3mg/day) of Certican (RAD001) with Simulect, corticosteroids and optimized administration of Neoral in de novo renal transplant recipients.

A 1 year Double-Blind, Double-Dummy and 2 year open-label, randomised, multicentre, parallel group study of the efficacy and safety of SDZ RAD tablets versus Mycophenolate Mofetil as part of triple immunosuppressive therapy in de novo renal transplant recipients (extended to 5 yrs) (Renal Transplant Unit Team). (Franzen, K).

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.


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 reduced dose Neoral™ in de novo kidney transplant recipients CERL080A2405AU01. (Campbell SB, Martin A).

A twelve-month, randomized, multicentre, open-label study to investigate the clinical outcomes of two immunounsuppressive 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 transplant recipients receiving Simulect® and Neoral® - FREEDOM Study. (Martin A).

Pre-transplant pharmacokinetics as a predictor of dose requirement post renal transplantation. A multicentre, open, prospective, 2-arm, phase IV study of Prograf (tacrolimus) in renal transplant patients. (Campbell SB, Martin A).

Effect of donor kidney side on renal transplant outcomes. (Johnson DW).

Relationship of cardiorespiratory fitness in insulin resistant renal transplant recipients to physical inactivity, metabolic risk factors and atherosclerotic burden. (Armstrong K, Prins J, Johnson DW, Isbel N).


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 NM).


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).

Assessment of exercise and dietary factors associated with abnormal glucose tolerance in renal transplant recipients. (Orazio L).

Assessment of Everolimus in addition to Calcineurin Inhibitors Reduction in Maintenance Renal Transplant Recipients (ASCERTAIN). (Campbell S, Franzen K).

Valcylte in CMV-disease treatment of solid organ recipients. (VICTOR) (Campbell S, Martin A).

A randomised, open-label, comparative evaluation of the safety and efficacy of Sirolimus versus Cyclosporine when combined in a regimen containing Basiliximab, Mycophenolate Mofetil, and Corticosteroids in primary de novo renal allograft recipients. (Campbell S, Martin A).

A Randomized, Open-Label Study to Compare the Rate of New Non-Melanoma Skin Cancer in Maintenance Renal Allograft Recipients Converted to a Sirolimus-based Regimen versus Continuation of a Calcineurin Inhibitor-based Regimen. (Campbell S, Martin A).

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).

The impact of eGFR on referral patterns. (Noble E, Johnson DW, Isbel NM).

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).


The Effect of Sulodexide in Patients with Type 2 Diabetes and Microalbuminuria. (Isbel N, Martin A).

The Effect of Sulodexide in Overt Type 2 Diabetic Nephropathy. (Isbel N, Martin A).

Other Research

Basic Science Research

Erythropoeitin 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 darbepoietin 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 canine model of renal transplantation. (Forman C, Nicol DL, Johnson DW).


Protective effect of Angelica sinensis on renal vascular endothelial cell damage induced by oxidative stress. (Yamada M, Vesey DA, Gobe GC, Johnson DW).

Expression and phosphorylation of P66SHC in young and old rats subjected to oxidative stress. (Percy C, Brown L, Johnson DW, Gobe GC).


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).

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).

The role of herbal medicines in preventing progressive chronic kidney scarring and failure. (Wocjikowski K, Johnson DW, Gobe GC).

The therapeutic application of adult mesenchymal stem cells in renal regeneration. (McTaggart S, Gobe GC, Johnson DW).

Large animal models of renal warm ischaemia / reperfusion injury. Comparison of dog vs. pig. (Forman C, Nicol DL, Johnson DW).

Financial Support

Current Grants

$258,000 The Australasian Kidney Trials (AKT) Network. Grant
Identification and characterisation of the way erythropoietin protects tissue from oxidant stress. Grant (Johnson D, Gobe G, Colditz P).

$84,000 NHMRC / AHMAC / Industry. IDEAL Trial. Grant (Pollock C, Johnson D, Harris D, Cooper B).


$159,250 Identification and characterisation of the way erythropoietin protects tissue from oxidant stress. Grant (Johnson D, Gobe G, Colditz P).

$84,000 NHMRC / AHMAC / Industry. IDEAL Trial. Grant (Pollock C, Johnson D, Harris D, Cooper B).


$40,000 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. Grant (Johnson D, Pollock C, Neal B, Walker R, Craig J).

Other Grants
$50,000 Kidney Health Australia. The Australasian Kidney Trials Network. (Hawley C, Johnson D, Beller E, Hoy W).

$20,000 Amgen. The role of darbepoietin alpha as a novel renoprotective agent in a rat model of ischaemic acute renal failure. Grant (Johnson D, Vesey D, Gobe G, Endre Z).

$20,000 Janssen-Cilag. Erythropoietin as a renoprotective agent in renal transplantation. Grant (Johnson D, Nicol D, Forman C).


Other Support

$50,000 University of Queensland. The Australasian Kidney Trials Network. (Hawley C, Johnson D, Beller E, Hoy W).

$5,000 Amgen. A randomised controlled trial of oral HEMe iron polypeptide Against Treatment with Oral Controlled Release Iron Tablets for the correction of anaemia in peritoneal dialysis patients (HEMATOCRIT trial). (Johnson D, Hawley C, Beller E).


Publications
27 journal articles
30 abstracts
15 articles in press

Lectures and Presentations

Professor David Johnson

“Renal artery stenosis – getting blood into a stone,” Johnson and Johnson National Conference, Port Douglas, February.

“Chronic kidney disease and eGFR,” Women’s Health Conference, Gold Coast, February.


“Clinical conundrums,” Asia Pacific Forum in Nephrology, Adelaide, April.

“MDRD eGFR in CKD: fantastic formula or fatally flawed?” Royal Australasian College of Physicians’ Annual Scientific Meeting, Cairns, May.

“Will universal use of eGFR prevent end-stage renal disease?” The 5th Kimmelstiel Meeting of Australian Endocrinologists and Nephrologists, Melbourne, July.

“Optimal fat mass in peritoneal dialysis,” International Society of Peritoneal Dialysis, Hong Kong, August.

“IV vs oral iron in peritoneal dialysis: risks, benefits, indications,” International Society of Peritoneal Dialysis, Hong Kong, August.

“The BalANZ trial,” International Society of Peritoneal Dialysis, Hong Kong, August.

“Optimal fat mass in peritoneal dialysis,” International Society of Peritoneal Dialysis, Hong Kong, August.

Dr David Mudge

“Renal Artery Stenosis Update,” RACP Scientific Congress, Cairns, May.


“Update on trials of renovascular intervention: are we any
closer to knowing who to treat and how?” Vascular 2006, Cairns, September.

**Associate Professor Carmel Hawley**


---

**Post Graduate Students**

Colin Forman, Masters, in progress

Linda Orazio, MPhil, in progress

Bettina Douglas, Masters, completed

Dr Nicole Isbel, PhD, completed

Kirsty Armstrong, PhD, completed

Dr Carolyn van Eps, PhD, in progress

Markus Rumpsfeld, PhD, in progress

Ken Wocjikowski, PhD, in progress

Christudas Morais, PhD, in progress

Jun Li, PhD, in progress

Christine Percy, PhD, in progress

Miko Yamada, PhD, commenced

---

**Awards**

Dr Jenny Wong

Richard Kemp Prize for best oral presentation at the Queensland RACP Advanced Trainees’ Annual Scientific Meeting.

Dr Carolyn van Eps

Princess Alexandra Hospital Research Fellowship.

---

**Public Service Relevant to Research**

Professor David Johnson

Founding Member, Australasian Kidney Trials Network since 2004.

Member, Operations Secretariat, Australasian Clinical Trials Network in Nephrology 2004 - present.

Chair, Kidney Check Australia Taskforce since 2004.

Co-Chair, Australasian Creatinine and eGFR Consensus Working Party (convened by Kidney Health Australia, Australian and New Zealand Society of Nephrology, Australasian Association of Clinical Biochemists and Royal College of Pathologists of Australasia) 2004 - present.

Chair, National Chronic Kidney Disease Strategy Early Kidney Disease Working Group since 2004.

Member, International Society of Peritoneal Dialysis Membership Committee since 2006.

Caring for Australians with Renal Impairment (CARI) Clinical Practice Guidelines Steering Committee Member since 2000.

Australian and New Zealand Dialysis and Transplant Association (ANZDATA) Registry Management Committee Member since 2000.

Peritoneal Dialysis Project Manager, ANZDATA Registry since 2001.

Australian representative, Pure Red Cell Aplasia Global Scientific Advisory Board since 2003.

Member, Asia-Pacific Dialysis Research Advisory Board since 2005.

Working Party Member, ANZSN CARI Guidelines for Peritoneal Dialysis Adequacy since 1999.


Convenor, CARI Guidelines for Peritoneal Dialysis Adequacy since 2003.

Working Party Member, ANZSN CARI Guidelines for Prevention of Renal Failure Progression since 2000.

Working Party Member, ANZSN CARI Guidelines for Infection Control in Dialysis Units since 2006.

Working Party Member of Australian Cancer Network National Clinical Practice Guidelines for Post-Transplant Lymphoproliferative Disorder and Other Immunodeficiency-Related Lymphomas since 2001.

Queensland Renal Collaborative Steering Committee Member 2004-present.


Editor, Evidence Based Nephrology (British Medical Journal series) since 2005.

Editorial Board Member for Peritoneal Dialysis International since 2003.

Editor, Evidence-based Nephrology (part of British Medical Journal series of evidence-based medicine textbooks).
Reviewer for Lancet since 2005.
Reviewer for Nephron since 1998.
Reviewer for Nephrology since 1999.
Reviewer for Experimental Nephrology since 1999.
Reviewer for the Australian and New Zealand Journal of Medicine / Internal Medicine Journal since 1999.
Reviewer for Nephrology Dialysis and Transplantation since 1999.
Reviewer for Kidney International since 2000.
Reviewer for Journal of the American Society of Nephrology since 1999.
Reviewer for Blood Purification since 2005.
Reviewer for Medical Science Monitor since 2005.
Reviewer for Cytokine since 2004.
Reviewer of research grant applications for the Australian Kidney Foundation / Kidney Health Australia since 1998.
Reviewer of research grant applications for the National Health and Medical Research Council since 1998.
Reviewer of research grant applications for Diabetes Australia since 1999.

Dr David Vesey
Manager, Department of Nephrology Endotoxin Testing Service.
Reviewer, Nephrology.
Member, National Kidney Research Fund UK External Referee Panel.

Dr Nicole Isbel
Member of Council – Australian and New Zealand Society of Nephrology 2006-
Member of National Vascular Disease Prevention Alliance 2001-
Member of Scientific Programme and Education Committee, ANZSN 2001-2006.
Convenor of local organising committee ANZSN ASM 2007.
Queensland Renal Collaborative Steering Committee Member 2004-
Member of organising committee post-graduate course World Transplant Congress, Sydney, 2008.
Chairman CARI guideline working group on ‘Urine protein as a diagnostic test,’ 2002-
Member CARI guideline on ‘Live donor renal transplantation’ 2002-
Reviewer, Nephrology 1998-
Reviewer, Journal of American Society of Nephrology 2001-
Reviewer, Nephrology, Dialysis and Transplantation 2004-
Reviewer, American Journal of Kidney Disease 2006-
Reviewer, Cochrane Renal Group.
Reviewer, NHMRC Project Grants.
Reviewer of research grant applications for Diabetes Australia.
Reviewer, American College of Physicians, Physicians Information and Education Resource 2006-

Dr David Mudge
Medical and Scientific Advisory Committee, Kidney Health Australia since 2006.
Working Party Member, ANZSN CARI Guidelines for Renal Vasculitis since 2006.
Reviewer, Nephrology since 2005.
Reviewer, Internal Medicine Journal since 2005.
Reviewer, Nephrology, Dialysis and Transplantation since 2005.
Reviewer, Haemodialysis International since 2006.

Associate Professor Carmel Hawley
Board Member, Kidney Health Australia.
Chair, Operations Secretariat, Australasian Kidney Trials Unit.
Editorial Board Member, Nephrology.
Reviewer, Nephrology since 1999.
Reviewer for the Australian and New Zealand Journal of Medicine / Internal Medicine Journal since 1999.
Reviewer for Nephrology Dialysis and Transplantation since 1999.
Reviewer of research grant applications for the Australian Kidney Foundation / Kidney Health Australia.
Reviewer of research grant applications for the National Health and Medical Research Council.
Queensland Renal Collaborative Steering Committee – Inaugural Chair: current.
Member, Caring for Australians with Renal Impairment (CARI) working group for guidelines on bone disease in the pre-dialysis patient: since 1999.
Co-Chair, Australians with Renal Impairment (CARI) working group for guidelines on biochemical and haematological targets: since 2002.
The major highlights for the year for the Neurosurgery Department were the continuation of the Phase III drug trial into glioblastoma multiforme (TransMID) and the approval by the Human Research Ethics Committee for the collection and transport of glioma samples to the University of Queensland campus at St Lucia in addition to the Princess Alexandra Hospital tumour bank. Both of these initiatives have been in parallel with the development in May 2006 of the first multidisciplinary brain tumour clinic in Australia. This collaboration between neurosurgery, medical oncology, radiation oncology, radiology, pathology, palliative care, nursing and neuropsychology will be an important vehicle to drive further tumour research.

Submission of protocols have been made for another three international drug trials with site visits planned for early 2007. The TransMID trial has allowed the Department to employ a research nurse, Julie Cochrane, on a part-time basis.

**Current Research Activities**

**Clinical Trials**

A Phase III multicentre study of intratumoral/interstitial therapy with TransMID™ compared to best standard of care in patients with progressive and/or recurrent, non-resectable glioblastoma multiforme. International Multicentre Study.

The collection, transportation, storage and processing for research purposes of human glioma tissue. Collaboration with the Queensland Brain Institute and the Institute of Molecular Biology, University of Queensland.
Other Research

Prospective observational studies of minimally invasive surgery in lumbar discectomy, lumbar decompression for canal stenosis and lumbar fusion.

The utility of CTA versus lumbar puncture for the confirmation of aneurysmal subarachnoid haemorrhage in the setting of a normal CT scan – collaboration with the Departments of Emergency Medicine and Radiology.

Correlation between CSF and serum Mg levels in aneurysmal subarachnoid haemorrhage – collaboration with the Department of Intensive Care Medicine.

A prospective observational study of speech disturbance in subarachnoid haemorrhage – collaboration with the Department of Speech Pathology.

External ventricular drains versus intracranial pressure monitors – collaboration with the Departments of Intensive Care Medicine at Princess Alexandra Hospital and RBWH and the Department of Neurosurgery at RBWH.

Queensland Spinal Cord Regeneration Trial – A Phase 1 trial of autologous olfactory ensheathing cells in chronic spinal cord injury – collaboration with the Departments of Spinal Injuries Unit, ENT and Griffith University.

Financial Support

$18,649 TransMID Trial Xenova Pty Ltd. (Nowitzke A).

Lectures and Presentations

Associate Professor Leigh Atkinson

Dr Adrian Nowitzke


Minimally invasive spine surgery. Miami Spine. Spine course by Medtronic Pty Ltd.


Associate Professor Michael Weidmann
The Nursing Practice Development Unit aims to facilitate internal and external research partnerships. These partnerships have resulted in research capacity being developed within a variety of clinical settings including Cancer Services, Intensive Care, Neurosciences, Emergency, Renal Services and Cardiac Care.

Some major achievements in research for the Unit included a number of successful grant applications, publications and invitations to speak at National Conferences as a Key Speaker.

Staff

Dr Sarah Winch, Nursing Director, Research
Dr Amanda Henderson, Nursing Director, Education
Kerri Holzhauser, Nurse Researcher
Betty Bathersby, Nurse Educator
Mary Boyle, Nurse Educator
Diane Deshong, Nurse Educator
Emma Eaton, Nurse Educator
Kayleen Gordon, Nurse Educator
Jennifer McIntosh, Nurse Educator
Donna McLean, Nurse Educator
Karyn Paterson, Nurse Educator
Kim Storrie, Nurse Educator
Alison Trivella, Nurse Educator
Michelle Twentyman, Nurse Educator
Joy Wilson, Nurse Educator
Jessica Schluter, Nurse Researcher
Tim Michaux, Executive Support Officer
Katrina Paterson, Administration Officer
Belinda Lloyd, Research Assistant

Current Research Activities


What change occurs to an Australian health care institution during it’s application for Magnet Recognition? (Holzhauser K. Doctoral project).

A pilot study of the factors that influence the health promotion and risk-reduction practices of younger female survivors of breast and haematological cancers funded by Griffith University. (McCarthy A, Winch S).

Financial Support


$20,000 GURG. (McCarthy A, Winch S).

Publications
16 journal articles
4 abstracts
1 book chapter
6 articles in press

Lectures and Presentations

Eaton E, Twentyman M and Henderson A. Teaching our nurses to teach: development and implementation of guidelines to assist nurses to facilitate student learning. ‘Fill The Gaps’ ANZAME Conference. Gold Coast, Queensland.

Eaton E. Understanding the Challenges for Educators within a Magnet Hospital, Nurse Educators Symposium. Brisbane, Queensland.


Winch S. ‘The Death of Nursing: Implications for education and research’, Capital Issues in Education, Australian Nurse Teachers’ Society, The Australian National University, Canberra. (Invited Key note Speaker)


Post Graduate Students
Letitia Burridge, PhD, in progress
Judy Gonda, PhD, in progress
Carol Jeffrey, PhD, commenced

Public Service Relevant to Research
Amanda Henderson
Member Editorial Board, Journal of Clinical Nursing.

Kerri Holzhauser
Nursing Representative Princess Alexandra Hospital Human Research Ethics Committee.

Member, the Editorial Board - Australian Emergency Nursing Journal.

Assistant Editor (Qld), Australian Emergency Nursing Journal.

Anonymous peer review of articles in the areas of clinical practice, evidence-based practice, survey tool development and research utilising quantitative methodologies.

National Institute of Clinical Studies (NICS), Member of NICS Emergency Care Community of Practice Research Reference Group.

Sarah Winch
Reviewer, Social Science & Medicine.

Reviewer, Australasian Emergency Nursing Journal.

Theses Marking – 4.
Nutrition and Dietetic Services

Nutrition and Dietetic Services has 18.2 FTE dieticians 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. The Service provides nutrition support in enteral and parenteral nutrition, a range of nutrition supplements, texture and fluid modifications through food services and counselling on all aspect of nutrition care. The Service includes Charleville Health Service District.

Research focuses on the application of clinical nutrition in the practical care of patients. This includes nutrition support in cancer, liver disease, development and implementation of validated tools for the assessment of dehydration and malnutrition risk. Staff teach nutrition and dietetic students from Queensland University of Technology and Griffith University through lectures and supervised placements in clinical nutrition and food service. Currently there are four 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. (Vivanti A, Ash S, Roberts M, Edwards H, Battistutta D).

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 for two years post...


Physiotherapy intervention and the balance and safety of rehabilitation patients: The influence of nutritional status upon falls risk to also be assessed. (Haines T, Vivanti A, Horgan N).


Other Research
Ethics Committee approval confirmed as a quality activity: Food service research was initiated and is co-ordinated from the Princess Alexandra hospital. It investigates practical food service issues including barriers to receiving oral intake, patient assistance with meals, patient average lengths of stay, patient preferences and food service systems with the aim of improving oral intakes and managing malnutrition. (Banks M, Vivanti A, Bauer J, Aliakbari J, Cruickshank D, Suter M, Hanna-Jones M, Wright O).

Lectures and Presentations

Winsome Abbott
Vitamin A, zinc and liver disease. Research staff at the University of Louisville, KY, USA. December.

Azmat Ali
Nutrition in liver disease Nutrition and dietetic masters students. Griffith University, May.

Role of the dietitian as multi professional input in patient care. Final year pharmacy students. University of Queensland, May.

Wendy Davidson
Enteral and Parenteral Nutrition Support. 3rd year Nutrition and Dietetic students. QUT, July.

Nutritional management of patients with cancer. 3rd year Nutrition and Dietetic students. QUT, August, 2006.

Angela Vivanti
Clinical symposium: Arthritis Year 2 MBBS students. University of Queensland, August.


Post Graduate Students

Merrilyn Banks, DHlthSc, in progress
Angela Vivanti, DHlthSc, in progress
Linda Orazio, MPhil, in progress
Winsome Abbott, PhD, in progress

Public Service Relevant to Research

Angela Vivanti
Princess Alexandra Hospital Health Service District Allied Health Research Committee.

Reviewer, Nutrition and Dietetics.

Financial Support
$1,500 Queensland Health Grant. (McGuane K, Power E).
$1,500 Queensland Health Allied Health Evidence Based Practice Review Grant. (Davidson W, Hill J, Stock T, Bauer J, Ash S, Isenring E, Reeves M).

Publications
2 journal articles
10 abstracts
3 articles in press
In 2006 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, hand and upper limb rehabilitation and chronic disease management.

Occupational Therapy 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. Occupational Therapists are a major contributor to the clinical knowledge base, creating a strong research profile nationally and internationally, and enhancing evidenced based clinical decision making locally.

Current Research Activities

Clinical Trials


Other Research
Catastrophic injury.

Activities of daily living in clients with a dual diagnosis of spinal cord injury and traumatic brain injury.

A research intervention to enhance the well-being and psychosocial outcomes of day hospital patients with acquired brain injury based on ICF "environment" framework.
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 with a normative sample.

Prospective memory of people with traumatic brain injury: an analysis of ways of remembering.

Predictors of prospective memory performance in adults with traumatic brain injury.

Behaviours and cognitive processes underlying fitness to drive in on-road assessments.

Determining driving outcome in traumatic brain injury survivors: Predictors of driving success.

Allied health professionals’ perspectives about the presence, assessment and management of risk when providing rehabilitation to clients with acquired brain injury in home and community settings: A qualitative investigation.

Self-identified goals and the ability to set realistic goals following acquired brain injury.

Executive functioning following traumatic brain injury.

Helping people with traumatic brain injury and their families adjust to driving cessation.

An investigation of the service and support needs of individuals with acquired brain injury and their families and carers during and after transition from hospital to the community.

A study of caregivers of adults with acquired brain injury: the impact of transition from hospital to home.

Aged care assessment and management.

The readability and comprehensibility of occupational therapy written materials for elderly people.

Reliability of the original and revised version of the Assessment of Living Skills and Resources.

An investigation of clients’ experiences of an upper limb treatment group.

Reliability and validity of the Occupational Therapy Adult Perceptual Test.

Review of visual perceptual functioning of people following traumatic brain injury using the Occupational Therapy Adult Perceptual Test.

**Hand and upper limb rehabilitation**

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.

An investigation of clients’ experiences of an upper limb treatment group.

Does individualised hand splinting reduce spasticity after traumatic brain injury?

**Chronic disease management**

Evaluation of a multidisciplinary outpatient rehabilitation programme for patients with chronic heart failure.


### Financial Support


$24,890 CONROD Research grant. RCT of metacognitive contextual interventions for individuals with ABI in the...
community. (T Ownsworth, J Fleming, DS Humph, J Strong, P Kuipers).

$18,400 School of Health and Rehabilitation Sciences, UQ Rehabilitation research grant. Does individualised hand splinting reduce spasticity after traumatic brain injury? (J Copley, J Fleming, N Weir).

$18,608 School of Health and Rehabilitation Sciences, UQ Rehabilitation research grant. Helping people with traumatic brain injury and their families adjust to driving cessation. (K McKenna, J Fleming, M Turpin, J Liddle, N Weir).

$48,177 Disability Services Queensland Tender. An investigation of the service and support needs of individuals with acquired brain injury and their families and carers during and after transition from hospital to the community. (L Worrall, J Fleming, P Cornwell, T Haines, T Ownsworth, M Kendall, L Chenoweth).

**Publications**

13 journal articles
1 abstract
1 book chapter

**Lectures and Presentations**

Dr Jenny Fleming was invited to present two keynote addresses and a pre-course workshop in Canada at the Toronto Rehab Institute 7th Annual Stroke Rehab Symposium, December.

Jenny Fleming was invited to present a lecture and tutorial on brain injury rehabilitation to second year and graduate entry masters students in occupational therapy at The University of Queensland.

Kylie Bower was invited to present anatomy tutorials to first year occupational therapy students and graduate entry masters students in occupational therapy at The University of Queensland.

Nicole Weir was invited to present a poster at the World Federation of Occupational Therapy Conference, July 2006 in Sydney on behaviours and cognitive processes underlying fitness to drive in on road assessments.

Janelle Griffin was invited to present a paper co-authored by Nicole Weir at ANZSCOS, November 2006 in Melbourne on management of clients with dual diagnosis of spinal cord injury and traumatic brain injury.

Annette Fisher was invited to present at ANZSCOS, November 2006 in Melbourne on improving independence in environmental control for people with spinal cord injury in an inpatient setting.

Christine Cullen was invited to present an evidence-based practice review at ANZSCOS, November 2006 on the sitting regime following surgical management of pressure areas.

Lyn Miles was invited to develop and present a one day speciality workshop by Surgical Synergies and presented two workshops to Queensland and Northern New South Wales therapists on management of upper limb fractures and upper limb nerve compressions. The latter was then presented to a combined audience of Princess Alexandra Hospital occupational therapists and physiotherapists.

Lyn Miles was invited to present to Bundaberg Health Service District on manual oedema mobilisation, electrical modalities, CIMTs and wrist assessment.

Lyn Miles was an invited chairperson at the Australian Hand Therapy Association in Adelaide.

Margo Coffey was invited to present at the Plastic and Max Facs Surgery Workshop on components of occupational therapy within these areas.

Jodie Nixon was invited to present at the Princess Alexandra Hospital Stroke Education Seminar on Occupational Therapy in the Acute Stroke Unit.

Amanda Purcell was invited by the Centre for Palliative Care Education and Research to present a lecture on Palliative Assessment and Intervention for Allied Health Professionals at the Program of Experience in the Palliative Approach Allied Health Workshop.

Amanda Purcell was invited by the Cancer Collaborative Group to present a lecture titled “Fatigue: Contributing Factors and Effects in Patients Undergoing Chemotherapy and Radiotherapy”.

Suzanne Stirling was invited to co-facilitate a workshop on caseload management in a clinical setting to the Princess Alexandra Hospital Division of Clinical Support Services.

Geoff Lau was invited to present two lectures to second year and graduate entry masters students in occupational therapy and pharmacy students at The University of Queensland on the role of occupational therapy in mental health.

Geoff Lau was invited to present a tutorial to fourth year and graduate entry masters students in occupational therapy at The University of Queensland on careers in occupational therapy.

Geoff Lau was invited to present a tutorial to second year social work students at The University of Queensland on recovery in mental health service delivery.
Post Graduate Students

Emmah Doig, PhD, in Progress
Celeste Glasgow, PhD, in Progress
Ben Turner, PhD, commenced
Amanda Purcell, Masters, Commenced

Public Service Relevant to Research

Jenny Fleming
Review panel, Queensland Health Allied Health Research Scholarships.
Associate Editor, Journal Brain Impairment.
Ophthalmology Department

Staff

Dr Peter Madden,
Division of Ophthalmology,
Department of Surgery

Dr Quansheng Jing
(until August)

The Department focussed on preparing endothelium from a large number of corneal remnants from keratoplasty for examination. Image analysis development has been undertaken, but is still not sufficiently robust to work without some manual intervention.

Dr Quangsheng Jing has completed collating data on reasons next of kin decline to support donation when approached about eye tissue transplantation from their deceased relative. In August 2006 Dr Jing left the department for a medical internship. Dr Madden has taken up a part time research appointment with the Queensland Eye Institute. There is now an opportunity to develop further collaborative studies.

Financial Support

$11,000 Lions Medical Research Grant. (Dr P Madden)
Pharmacy Department

Staff

Lynette Loy,
Director

Lee Allam, Frank Czajcowski, Bryson Swan,
Assistant Directors

Robyn Hurley,
Clinical Trials Pharmacist

Julia Bates,
Senior Pharmacist Sterile Production Centre

Robyn Hurley, Julia Bates, Janet Weir, David Wojewoda,
Oncology and Haematology Unit

Judith Coombes,
Senior Pharmacist Education, Conjoint Lecturer School of Pharmacy, University of Queensland

Jo Sturtevant,
Senior Clinical Pharmacist Renal and Transplant, Senior Pharmacist Drug Utilisation Evaluation

Karl Winckel,
Specialist Clinical Pharmacist Geriatric and Rehabilitation Unit

Cathy Lynch, Libby Donegan,
Senior Clinical Pharmacists

Tina Patterson/Andrew Hargreaves,
APOP project officers

Belinda Corfield
CAPTION project officer

The Pharmacy Department continues to lead in the implementation of clinical services, and research and implementation of “Quality Use of Medicines” activities. Quality Use of Medicines 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. During 2006 the Department provided leadership in the introduction of the General Level Framework – to provide feedback on individual pharmacy practitioner’s clinical activities. During the year participation commenced in the National Multicentre Drug Use Evaluation Project to improve the prescribing of medications in acute post operative pain.

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. Support was also provided for approximately thirty-five trials using the Sterile Unit and or Oncology Unit services and a further eighty-six requiring services from the Clinical Trials Pharmacist.

Staff members are involved in teaching undergraduate and postgraduate pharmacy students as well as providing in- house education to staff and patients.

Current Research Activities

Clinical Trials

Dispensing, production and record keeping support for Clinical Trials during 2006 has involved about one-hundred and twenty-one trials. About thirty-five of these trials have had aseptic and safe handling production provided by the Sterile Production Centre.
**Other Research**

Acute post operative pain project in Collaboration with The University of Queensland Pharmacy School and Queensland Health Drug Advisory Committee.

Drug use evaluation projects.

Acute post operative pain pilot audit.

Audit of phenytoin levels.

Rapid tranquilisation.

Adjustment of drug doses for renal function in the elderly.

Neutropenic sepsis.

Pre-operative treatment of patients on chronic warfarin therapy.

**Financial Support**

$4,000 National Prescribing Service. CAPTION-Community Acquired Pneumonia: Towards improving Outcomes (Corfield B, Coombes J).

**Publications**

2 journal articles

6 abstracts

**Lectures and Presentations (invited)**

**Jo Sturtevant**

Acute Renal Failure. Post Graduate Diploma in Clinical Pharmacy, Pharmacy School, UQ.

Chronic Renal Failure. Post Graduate Diploma in Clinical Pharmacy, Pharmacy School, UQ.


Medication Management in the CKD patient. Pharmacy Australia Congress (PAC). October.


Medication management in patients with Chronic Renal Failure. SHPA Qld branch meeting. May.

**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.

**S Unwin**

Medication History Taking. Post Graduate Diploma in Clinical Pharmacy, Pharmacy School, UQ.

Antibiotics. Post Graduate Diploma in Clinical Pharmacy, Pharmacy School, UQ.

**Judith Coombes**

Pharmacist Specialisation-the view from practitioners. The Society of Hospital Pharmacists of Australia 5th Biennial Clinical Conference. November.

**Post Graduate Students**

Peter Samios, Grad. Dip. Hospital Pharmacy, completed

Geeta Sandhu, Grad. Dip. Hospital Pharmacy, commenced

Marisa Scuderi, Grad. Dip. Hospital Pharmacy, commenced

Lee Allam, Grad. Dip. Hospital Pharmacy, commenced

Janet Weir, Postgraduate Certificate, Oncology and Palliative Care, commenced

Jo Sturtevant, Masters Clinical Pharmacy, completed

**Awards**

Encouragement Award, Queensland State Conference, Society of Hospital Pharmacists of Australia, Brisbane, October.

Geeta Sandu, Shrinking Lung Syndrome.

Jo Sturtevant, Society of Hospital Pharmacists Janssen Cilag Renal Specialist Grant.

**Public Service Relevant to Research**

Pharmacy Department representative member to the Princess Alexandra Hospital Research Ethics Committee.

Pharmacy Department representative member to the University Of Queensland, School of Pharmacy Ethics Committee.

**Jo Sturtevant**

Reviewer, Journal of Pharmacy Practice and Research.

**Bryson Swan**

Honorary Senior Lecturer, Pharmacy Department, James Cook University.
The Physiotherapy Department has experienced a period of exceptional research growth. This has been highlighted by the attainment of a $400,000 National Health and Medical Research Council project grant for the prevention of in-hospital falls using multi-media patient education approaches. Further to this, a grant of $98,000 for the prevention of falls and validation of new gait and balance assessment techniques was also attained from the Allied Health Advisory Unit Community Rehabilitation Scheme. These grants will substantially add to the research capacity of the Department.

The Department continues to work closely with other allied health, nursing and medical staff members of the Hospital. Several projects have completed data collection in 2006, notably the assessment of staff agreement in classifying and reporting in-hospital falls project, the geriatric rehabilitation goal setting project, and a collaborative project with the Medical Aids Subsidy Scheme investigating the utility of four wheeled walker provision. Several projects commenced data collection in 2006, with a longitudinal cohort study and a randomised controlled trial both commencing in oncology.

**Current Research Activities**

**Clinical Trials**

- Enhancing health after surgery for breast cancer. (T Haines, N Wetzig, P Sinnamon, E Walpole, M Lehman, T Pratt, A Smith).
- Domiciliary versus centre-based community rehabilitation – randomised trial with economic evaluation. (T Comans, T Haines, M Curren, F Bourke, C Peters, C Doran, S Brauer).

**Other Research**

- Physiotherapy Intervention and the Balance and Safety of Rehabilitation Patients – An initiative of the Queensland Rehabilitation Physiotherapists Network. (T Haines, S Kuys, G Morrison, J Clarke, P Bew).
- Accuracy of proxy assessment of quality of life in aged care rehabilitation. (S McPhail, T Haines, E Beller).
- ABIPA a new tool for an old problem. (L Passier, J Gesch, M Nascimento, T Haines).
- Accuracy of visual observation in the assessment of head/neck malalignment. (J Gesch, L Passier, M Nascimento, T Haines).
- Epidemiology of falls in the aged care setting. (A Barker, J Nitz, N Low Choy, T Haines).
Post-operative shoulder mobilization protocols. (N Simmons, F Harbison, T Haines, J Coffey).

Diet and exercise in women receiving chemotherapy for breast cancer. (K McGuane, E Power, P Sinnamon, T Pratt, W Davidson).

Tai Chi for people with bleeding disorders. (R Dalzell, T Haines).

Financial Support

$98,000 Physiotherapists Registration Board of Queensland. Project Grant. Innovations in physiotherapy clinical education. (Pr Gwen Jull, Dr Vivian O’Connor, Dr Norman Morris, Dr Ilsa Neilsen, Dr Terry Haines, Ms Paula Bowman, Mr Phil Diver).

$10,000 Princess Alexandra Hospital CSEU. Clinical improvement grant. Physiotherapy management of osteoarthritis. (P Leanne Passier, Steven McPhail, Dr Terry Haines).

$10,000 Princess Alexandra Hospital CSEU. Clinical improvement grant. Physiotherapy management of ankylosing spondylitis. (Steven McPhail, Dr Terry Haines).

$25,000 CSL. Tai Chi for people with bleeding disorder. (R Dalzell, Dr T Haines).

Publications

6 journal articles

2 abstracts

1 book chapter

Public Service Relevant to Research

Dr Haines
Reviewer, NHMRC project grants, Journal of Clinical Epidemiology, Age and Ageing, and Australasian Journal on Ageing.

Post Graduate Students

Suzanne Kuys, PhD, in progress
Thorlene Egerton, PhD, in progress
Tracy Comans, PhD, in progress
Anna Barker, PhD, in progress
Steven McPhail, MPhil, in progress
Kathleen McGuane, MPhil, commenced
Amanda Purcell, MPhil, commenced
Brooke Wadsworth, MPhil, in Progress
Robyn Saxon, MPhil, commenced

Lectures and Presentations

Haines T, et al


Chatterton S, Haines T


Egerton T, et al

Temporal Characteristics of Physical Activity Periods among Older Adults. Australian Falls Prevention Conference. (Poster presentation).
Psychology in Division of Clinical Support Service

This year saw continuation and consolidation of research on several fronts including: decision making capacity, the incidence of depression and help seeking behaviours in diabetes, the role of the pre-frontal cortex in working memory, predicting aggression in inpatients with acquired brain injury or neurological impairment, predicting success in home haemodialysis patient trainees and collaboration with The University of Queensland projects detecting early memory impairment and social vulnerability in older adults.

Psychology in Clinical Support Services continues to have a strong track record in postgraduate studies, with one PhD completion during the year and five in progress.

Current Research Activities

Other Research

Assessing patients’ capacity to make decisions: An evidence based approach, Queensland Health Evidence Based Review Grant. (J Oram, H Tinson, D Fogarty).

Prospective memory in prefrontal cortex, ARC Linkage Grant with Griffith University. (D Shum, K Neulinger, D Fogarty, J Oram, H Tinson).

Predictors of aggression and violence in hospitalised patients with traumatic brain injury or neurological illness (multidisciplinary project involving staff of the Neurosciences and Brain Injury Rehabilitation Unit at PAH). (D Shum, K Kerr, J Oram, H Tinson).

Pilot study to identify and evaluate psychological factors that could predict success with Home Haemodialysis Training and Maintenance. (J Nearhos).

Collaboration with Dr Valerie Stone (University of Queensland) on a project validating a tool for the measurement of vulnerability to social and financial abuse in older cognitively impaired adults and younger adults with a mental health problem. (A Broome).

Collaboration with Dr Nancy Pachana (and others NHMRC, UQ) on a project developing short, reliable computer-based tool for the use of GPs in the early detection of dementia. (A Broome).

Financial Support


$120,000 ARC Linkage. Prospective memory in prefrontal cortex. (Shum D, O’Gorman J, Tinson H, Fogarty D, Oram J, ARC Scholar Neulinger K).

Staff

Clinical Staff

Annette Broome,
Director

Dr Helen Tinson,
Clinical Neuropsychologist

Dale Fogarty,
Clinical Neuropsychologist

Dr Joanne Oram,
Clinical Neuropsychologist

Jane Nearhos,
Clinical Psychologist

Michele Furlong,
Clinical Psychologist

Karleigh Kwapil,
Clinical Psychologist

Research Staff

Marla McHale,
ARC Scholar (from March 2004)

Kerryn Neulinger,
ARC Scholar (from November 2004)

Visiting Psychologists & Honorary Appointments

Associate Professor David Shum,
Griffith University

Associate Professor Justin Kenardy,
University of Queensland

Dr Ken McFarland,
University of Queensland

Dr Nancy Pachana,
University of Queensland
Lectures and Presentations

Annette Broome (invited)
Multi-Disciplinary Public Practice School of Physiotherapy, UQ.
Assessment of Older Adults. School of Psychology, UQ.
Geropsychology for Nurses. School of Nursing, Bremer TAFE.
Cognitive assessment, DDx. Postgraduate Training Psychiatry, UQ.

Jane Nearhos (invited)
Living well with kidney failure. Patients and carers forum, Kidney Health Australia, Brisbane, 28 October.

Post Graduate Students

Helen Tinson, PhD, Clinical Psychology and Clinical Neuropsychology, awarded
Dale Fogarty, PhD, Clinical Psychology and Clinical Neuropsychology, in progress
Annette Broome, PhD, Clinical Psychology and Clinical Neuropsychology, in progress
Marla McHale, PhD, Clinical Psychology, in progress
Karleigh Kwapi, PhD, Clinical Psychology and Clinical Neuropsychology, in progress
Kerryn Neulinger K, PhD, Psychology, in progress
2006 has been a year of expansion in staffing for the Queensland Clinical Trials Centre - Biostatistics, resulting from the Australasian Kidney Trials Network clinical trial activities, and of consolidation in other collaborations. The first year of the NHMRC Enabling Grant for the Australasian Kidney Trials Network has seen three trials develop from idea to initiation, with several other trials in the early phases of development.

Another important development was the renewal of the National Health and Medical Research Council Centres for Clinical Research Excellence Grant to the collaboration across several Hospital departments studying the effects of lifestyle and pharmaceutical interventions in people with diabetes, obesity, liver and kidney diseases. The Centre has continued to be involved in the design and analysis of these trials, and in the training of young clinical research investigators. The Centre continued to provide expert advice in biostatistics, study design and analysis to clinical investigators on the Hospital campus, with an increase in the volume of this work in 2006.

### Current Research Activities

#### Clinical Trials

**FAVOURED**: A randomised, double-blind, placebo-controlled, factorial-design trial to assess the effect of aspirin and fish oil in the prevention of early thrombosis in arterio-venous fistulae in patients with Stage IV or V chronic kidney disease requiring haemodialysis.

A randomised, controlled trial of exit site application of Medihoney™ Antibacterial Wound Gel for the prevention of catheter-associated infections in peritoneal dialysis patients.

Randomised study of radiotherapy or chemoradiotherapy to palliate symptoms of advanced oesophageal cancer. (A Trans-Tasman Radiation Oncology Group trial (TROG 03.01) with J Harvey – Radiation Oncology, Princess Alexandra Hospital and M Penniment – Royal Adelaide Hospital).

Timing of androgen deprivation in relapsed or non-curable prostate cancer patients. (TROG 03.06) with G Duchesne, H Gurney, J Denham and A Stapleton).

Trial comparing chemoradiotherapy versus radiation in the treatment of bladder cancer. (TROG 02.03) with K Gogna, E Walpole – Princess Alexandra Hospital, G Duchesne, E Nicol, M Berry).

Post-operative concurrent chemoradiotherapy versus radiotherapy in high-risk cutaneous squamous cell carcinoma of the head and neck. (TROG 05.01) with S Porceddu – Princess Alexandra Hospital, M Poulson, C O’Brien, M Penniment, C Milross).

Randomised controlled trials of manipulative physiotherapy and corticosteroid injections for lateral epicondylalgia. (With B Vicenzino, M Yelland – University of Queensland).

A randomised clinical trial of the physiotherapy management of acute whiplash associated disorders. (With G Jull – University of Queensland).

Cardiovascular exercise/diet intervention program for diabetic patients. (With CCRE in Cardiovascular Disease and Metabolic Disorders).

Randomised trial of metformin, exercise and diet in patients with obesity. (With CCRE in Cardiovascular Disease and Metabolic Disorders).

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 II Trial). (With CCRE in Cardiovascular and Metabolic Disease, N Isbel, D Johnson, T Marwick).

Other Research

Cost-effectiveness and quality of life study for the ADVANCE clinical trial. (With P Glasziou – Oxford University, and P Clarke – University of Sydney).

Statistical consulting and data analysis for Princess Alexandra Hospital researchers in various fields, including oncology, haematology, hepatology, dietetics, geriatrics, nursing diabetes and endocrinology, pharmacy, cardiology, emergency medicine, respiratory medicine, and intensive care medicine.

Financial Support

Current NHMRC Grants


$400,000 Centres for Clinical Research Excellence Grant. CCRE in Cardiovascular and Endocrine disease. (Marwick T, Prins J, Shaw J, Stowasser M, Johnson D, Beller E, Coombes J).


Other Grants

$400,000 Queensland Cancer Fund. Princess Alexandra Hospital CCG. Infrastructure Grant. (Gill D, Beller E, Burmeister B, Frazer I, Gotley D, Saunders N, Thomson D).


Publications

17 journal articles

Post Graduate Students

Catrina Codd, MPH, completed
Christine East, PhD, completed
Steven McPhail, MPhil, commenced
Margo Pritchard, PhD, in progress
Leanne Bissett, PhD, in progress
Queensland Health Pathology Service has a strong and continued interest in research across the organization with a commitment to providing a high quality service with improved patient outcomes.

Anatomical Pathology

Conditions including non-Hodgkin’s lymphoma, urology and breast cancer are the major research areas for the Anatomical Pathology Department.

A tissue microarray facility is currently under development at this site following the successful application to the Golden Casket Foundation. This facility will enable expansion of the research capacity of all sites within Queensland Health Pathology Services.

Current Research Activities

Follicular lymphoma – expression of LAG-3. (Dr Geoffrey Strutton, Dr Peter Mollee, Dr Benjamin Shepherd. Collaborators and Partnerships: Queensland Institute of Medical Research).

Clinical disagreement in the Histologic Diagnosis and Pathological Stage in a series of Nephrectomy specimens. (Dr Catherine Campbell. Staff: Dr Joanna Perry-Keene, registrar. Collaborators and Partnerships: Dr Peter Campbell, Dr David Nicol, Dr Peter McTaggart).

Phenotypic/Genotypic Profiling and Outcome Correlation in Breast Cancer. (Dr Glenn Francis, Dr Andrina McGivern, Dr Rebecca Greenup. Collaborators: Queensland Institute of Medical Research).

Staff

Dr Glenn Francis,
Director Pathology, Princess Alexandra Hospital

Dr Guy Lampe,
Director Anatomical Pathology, Princess Alexandra Hospital

Dr Andrew Carter,
Director Chemical Pathology, Queensland Health Pathology Service - Central

Dr Robert Bird,
Director of Haematology, Queensland Health Pathology Service, Princess Alexandra Hospital

Dr Joan Faoagali,
Director Microbiology, Queensland Health Pathology Service, Princess Alexandra Hospital

Dr Glenn Francis and Team
Lymph node status in breast cancer. (Dr Glenn Francis, Dr Neil Wetzig. Collaborators: Queensland Institute of Medical Research)

<table>
<thead>
<tr>
<th>Financial Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>$143,286 Study Education and Research Trust Fund Grant. Phenotypic/Genotypic profiling in Breast Cancer.</td>
</tr>
<tr>
<td>$94,027 Golden Casket Foundation Grant. Purchase of Tissue Microarrayer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 journal articles</td>
</tr>
<tr>
<td>2 abstracts</td>
</tr>
<tr>
<td>1 article in press</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lectures and Presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q Lau</strong></td>
</tr>
<tr>
<td>Metastatic Desmoplastic Medulloblastoma with Large Cell Transformation to Lymph Node. International Academy of Pathologists Meeting in Sydney, June.</td>
</tr>
<tr>
<td>Testicular Granulosa Cell Tumour. Royal College of Pathologists Meeting in Brisbane, May.</td>
</tr>
</tbody>
</table>

| **A McGivern** |
| Lymphocytic Phlebitis of the Stomach. Royal College of Pathologists Meeting in Brisbane, May. |

| **J Perry-Keene** |
| Dedifferentiated Chondrosarcoma. Royal College of Pathologists Meeting in Brisbane, May. |

| **F Malczewski** |
| Hepatosplenic T-Cell Lymphoma. Royal College of Pathologists Meeting in Brisbane, May. |

| **G Lampe** |
| Sudden Infant Death Syndrome. Paediatric and Perinatal Conference, RBWH Brisbane, February. |

| **G.D Francis** |
| Results of the QAP Program for Immunohistochemical determination of Hormone receptors. International Academy of Pathology, Sydney. |
| RCRA QAP Immunohistochemistry Module. International Academy of Pathology, Sydney. |
Chemical Pathology

The Queensland Health Pathology Services Chemical Pathology Department is committed to providing high quality clinically relevant research in three major areas:

- Service provision / clinical support
- Training and teaching of Pathology to clinical and scientific professionals
- Development and interpretation of quality assays.

The four major foci for clinical research within the department are Diabetes, Cancer, Metabolic Medicine and Pharmacogenomics.

Current Research Activities

The Department frequently collaborates with clinical colleagues and major collaborations include those with: Gastroenterology, investigating markers of Inflammatory Bowel Disease; Microbiology and Gastro-enterology, investigating the diagnostic utility of non-isotopic alternatives for diagnosing Helicobacter pylori infection; Endocrinology, investigating Type 2 diabetes and the metabolic syndrome; and Clinical Pharmacology for the development of Therapeutic Drug Monitoring and Pharmacogenomics services; Paediatrics for developing Metabolic Molecular assays.

Publications

4 journal articles
7 abstracts
2 articles in press

Lectures and Presentations

A Carter
Towards standardised troponin reporting. Wide Bay Scientific Group Meeting, March.

J Chang
Trying to Iron a few things out. Royal Brisbane and Women’s Hospital Grand Rounds, November.

G Dimeski
POCT –blood gases. Australian Association of Clinical Biochemists Travelling Fellow. Tropical Medicine Conference Townsville, June.

M Gattas & D Morris
Batten’s disease and Galactosaemia – Diagnosis and Counselling. Australian Association of Clinical Biochemists Monthly Meeting, Royal Brisbane and Women’s Hospital Education Centre. May.

S Klingberg
Introduction to Inborn Errors of Metabolism in the Newborn. Perinatal Pathology Course. 24 February.

C Martin

D Murrell (Presented by)

A Sharp
Medium chain acyl-CoA dehydrogenase (MCAD) deficiency. RBWH Pathology Grand Rounds. 31 March.
Haematology

The major research interest within the Haematology Department is the molecular diagnosis and monitoring of haematological malignancy, particularly acute myeloid leukaemia. The Laboratory has a major role in supporting clinical haematology trials, and is home to the Australasian Leukaemia and Lymphoma Group Tissue Bank. This Bank collects and stores tissue from individuals with haematologic malignancy, providing material for laboratory research throughout Australasia and overseas.

The Cancer Research Laboratory is currently being established as a joint initiative of Queensland Health Pathology Service and the Princess Alexandra Hospital Health Service District. It will build on the expertise of medical and scientific staff based at the Princess Alexandra Hospital site.

There is a strong culture of research within the Department. Projects covering the spectrum through basic, translational and clinical research are now underway, with the prospect of building on this culture with the proposed joint Queensland Health Pathology Service and the Princess Alexandra Hospital Cancer Research Laboratory and the government commitment to construct a Translational Research Institute at the Princess Alexandra site.

Research into the molecular diagnosis and monitoring of residual disease in haematological malignancies was started by Dr Paula Marlton and Mr Russell Saal in early-mid 1990s. Their work using real time PCR for AML1-ETO was presented at the Annual Scientific Meeting of the American Society of Haematology in 1998. This work was pivotal in establishing the Haematology Laboratory, Queensland Health Pathology Service and the Princess Alexandra Hospital as a national reference centre for molecular diagnosis and monitoring of acute promyelocytic leukaemia and core binding factor positive acute myeloid leukaemia. Subsequent, and ongoing work using WTI in the monitoring of acute myeloid leukaemias, without a specific molecular rearrangement, is now coming to fruition. The decision to establish the national Australasian Leukaemia Lymphoma Group Tissue Bank at Princess Alexandra Hospital in 2002 was recognition of the expertise in molecular research of haematologic malignancy. It is increasingly common for clinical trials in malignant haematology to have a laboratory research component, with diagnostic and follow up samples collected and sent to the Tissue Bank for storage. The Australasian Leukaemia Lymphoma Group Tissue Bank was expanded and co-located with the Queensland Health Pathology Service and the Princess Alexandra Hospital laboratory in 2006, and there are now in excess of 9486 samples in storage, and five full time positions within Queensland Health Pathology Service have been funded by the National Health and Medical Research Council and the Price Waterhouse Cooper's Foundation through Leukaemia Foundation of Australia, grants for scientific, technical and administrative officers to operate the tissue bank.

Dr Devinder Gill's research work has concentrated on chronic lymphocytic leukaemia. In collaboration with the co-located Centres for Immunology and Cancer Research Dr Gill has been looking at gene expression profiling, and leukaemic stem cells in CLL. Dr Gill is the Chairman of the Cancer Collaborative Group, and is Chairman of the Aggressive Lymphoma Sub Committee of the Australasian Leukaemia and Lymphoma Group.

Dr Peter Mollee has a specific interest in amyloidosis. Much of his work has centred on the utility of free light chain assays in the monitoring of response to therapy. Dr Mollee is also national principal investigator in the Australasian Leukaemia and Lymphoma Group MM8 study.

Current Research Activities

A pilot study investigating Valproic acid (VA) in combination with Cytarabine (Ara-C) in elderly patients with Acute Myeloid Leukaemia (AML) and in patients with refractory or relapsed AML (LAVA trial). Drs Peter Mollee, Devinder Gill, Robert Bird, Paula Marlton, Tony Mills, Steven Lane. Collaborators/Partnerships: Dr Nigel McMillan and Associate Professor N. Saunders, Centre for Immunology and Cancer Research University of Queensland.


Novel Prothrombotic Marker Utilising Platelet Micro Particle Associated Cross Linked Fibrin. (Dr Robert Bird, Mr Russell Saal. Collaborators/ Partnerships: Dr Paul Masci, Principal Professional Officer, University of Queensland, Dr Harry Gibbs, Director of Vascular Medicine, Dr Paul Garrahy, Director of Cardiology).

Haemostasis Registry. (Dr R Bird, Dr Steven Lane, Dr. Matthew Hourigan, Dr. Kirk Morris. Collaborations/ Partnerships: Department of Epidemiology & Preventative Medicine, Monash University).

Jak2 and SECs as predictors of thrombotic complications in ET. (Dr Peter Mollee, Ms Karen Grimmett, Dr Helen Weston).

MUC1 as a predictor of bleomycin lung toxicity. (Dr Peter Mollee, Dr Richard Wong, Dr Matthew Hourigan. Collaborators/ Partnerships: Dr Luke Garske, Staff Respiratory Physician).

Leukaemic Stem Cells in CLL. (Dr Devinder Gill. Collaborators/ Partnerships: Dr Nigel McMillan, Centre for Immunology and Cancer Research University of Queensland).

Large scale assessment of WT1 as a marker of MRD in patients with AML treated uniformly in a clinical trial. (Dr P Marlton, Russell Saal).

Prognostic Indicators in Post Transplant Lymphoproliferative Disorder (PTLD). (Dr Peter Mollee, Dr Matthew Hourigan. Collaborators/ Partnerships: Professor David Johnson, Director of Renal Medicine).

The Impact of Cessation of Immunosuppression on Graft Function in Post Transplant Lymphoproliferative Disorder (PTLD). (Dr Peter Mollee, Dr Matthew Hourigan. Collaborators/ Partnerships: Professor David Johnson, Director of Renal Medicine).

---

Financial Support

- $250,000 Leukaemia Foundation of Australia. Molecular assessment of good prognosis AML in conjunction with ALLG AML-M13 trial. (P Marlton, Australasian Leukaemia and Lymphoma Group).
- $20,000 Cancer Council Australia. Molecular assessment of good prognosis AML in conjunction with ALLG AML-M13 trial. (P Marlton, Australasian Leukaemia and Lymphoma Group).
- $5,800 QHPS SERTF. Fluorogenic High Resolution Fragment Analysis of IgH and TCR Gene Rearrangements. (R Saal).
- $30,000 Leukaemia Foundation. MM8. (P Mollee).
- $50,000 Amgen. MM8. (P Mollee, Australasian Leukaemia and Lymphoma Group).
- $15,000 Roche. PTLD1 (P . Mollee, St Vincent’s – Sydney).
- $20,000 Amgen. Pegfilgrastim in HyperCVAD. (P. Mollee, PMCI - Victoria, SCGH – Western Australia).

Awards

Dr Steven Lane
- $5,000 HSANZ Travel Grant (presentation of research project at American Society of Haematology, Atlanta, GA. 2006).

Dr Matthew Hourigan
- $5,000 SANZ Travel Grant (presentation of research project at American Society of Haematology, Atlanta, GA. 2006).
- $8,000 Cancer Collaborative Group Registrar Grant for a research project of immunohistochemistry in the diagnosis of methotrexate related Non Hodgkin Lymphoma.
Microbiology

The Princess Alexandra Hospital Microbiology Department has had major changes in 2005-6 with the transfer in March 2006 of the Director, Dr Nimmo and Chief Scientist, Dr Harper and several other staff to the new Queensland Health Pathology Service Central laboratory, along with the research they were undertaking at the Hospital. Since March 2006 the Princess Alexandra Hospital Microbiology laboratory has been assessing new research roles.

The laboratory is keen to assist with clinically based research and is re-building links with clinicians interested in microbiology as well as maintaining past alliances with the infection control department and pharmaceutical companies.

The Princess Alexandra Hospital Microbiology staff are encouraged to undertake research and present in appropriate form. Student projects are encouraged and liaison with Griffith University and The University of Queensland will continue and hopefully expand in the future.

Current Research Activities

Clinical Trials
Randomised, double-blinded, multinational trial of intravenous Televancin versus Vancomycin for treatment of complicated Gram-positive skin and skin structure infections with a focus on patients with infections due to MRSA.

Other Research
Collection and testing of the antibiotic susceptibility of isolates as part of AGAR (Australian group studying antibiotic resistance); ongoing.

MIC testing of a range of clinically significant isolates against a new antibiotic marketed by Wyeth (Tigecycline); completed.

Completion of a collection of urinary tract isolates for a study into pathogenicity with University of Queensland.

Commencement of a collection of blood and urinary E. coli isolates to examine their pathogenicity factors, with Dr Mark Schembri, University of Queensland.

Review of the immune status of post bone marrow transplant patients and determination of the requirements for vaccination and the costs; completed, Dr Joan Faoagali.

Enrolment in a study of a new VZV vaccine aimed at reducing the rate of zoster in patients after bone marrow transplantation; ongoing preliminary.

Investigation of the HUT as a mechanism for retrieving viable Helicobacter pylori and performing antibiotic susceptibility tests on these isolates; ongoing Chris Lidstone, Microbiology Princess Alexandra Hospital.

Collaboration in a study to detect H. pylori antigen in stool samples of patients with H. pylori infection and relapse; Chris Lidstone, Microbiology, Princess Alexandra Hospital.

Collaboration with the PAH Cardiac Unit in a study of the pathogenicity of S. aureus on native and artificial heart valves. (Dr Paul Peters, Cardiologist, Brian Grainger, Technical Officer).

Collaboration with the PAH Ophthalmology Unit in a study of P. aeruginosa causing corneal infections and the pathogenicity of these isolates. (Matthew Green, Eye Registrar, Brian Grainger, Technical Officer).

Investigation of the comparative antibiotic activity of trimethroprim and two similar drug complexes, in collaboration with Griffith University, Department of Pharmacy. (Dr Joan Faoagali, Deputy Director, Wayne Monaghan, Supervising Scientist, Scott Lingard, Student Griffith University. Collaborators/Partnerships: Dr Gary Grant, Griffith University).

Lectures and Presentations
Various lectures and presentations including SIG presentations, ASM presentations, Pathology Update, ASID, National immunisation conference.
Staff

Dr Tim Geraghty,
Director Queensland Spinal Cord Injuries Service, Rehabilitation Physician

Dr William Davies,
Visiting Medical Officer, Physician and Rehabilitation Physician

Dr Susan Urquhart,
Senior Medical Officer, Rehabilitation Medicine

Dr Wilbur Chan,
Part-Time Staff Specialist, Rehabilitation Physician

Alison New,
Nurse Unit Manager

Tricia Fronek,
Senior Social Worker

Josh Simmons,
Acting Senior Physiotherapist

Glenda Price,
Senior Occupational Therapist

Research Assistants

Julie Cochrane,
Clinical Research Coordinator and Project Manager

Helen Le Good,
Registered Nurse and Clinical Research Coordinator

Ellen Eugarde,
Clinical Nurse and Clinical Research Coordinator

The Spinal Injuries Unit, along with the Transitional Rehabilitation Program and the Spinal Outreach Team make up the Queensland Spinal Cord Injuries Service, which 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.

Spinal Injuries Unit

Research activities in the Spinal Injuries Unit have included:

- Exploring staff attitudes, comfort, knowledge and behaviours regarding “Professional Boundaries” in collaboration with the Transitional Rehabilitation Programme
- Evaluation of a neurogenic bowel programme for patients with spinal cord injuries
- A review of current practices regarding urology procedures for spinal cord injury patients.

Current Research Activities

Clinical Trials


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. (Geraghty T, Douglas D, Maugham L, Simmons J, Eugarde E, Le Good H).

Other Research


**Financial Support**


$8,069 Nursing Practice Development Unit. Factors that affect the outcomes of ventilator patients with spinal cord injury: a retrospective chart analysis. Practice Innovation Grant for Nurses. (Eugarde E, Geraghty T, New A).


**Publications**

3 articles in press

**Lectures and Presentations**

Cullen C, Griffiths L, Urquhart S, Wadsworth B, Fronek P
Evidence based review of sitting regime following surgical management of pressure areas. Australian and New Zealand Spinal Cord Society, Annual Specific Meeting, Melbourne, November.

Eugarde E, Geraghty T, New A

Fisher A, Geraghty T
Improving independence in environmental control for people with spinal cord injury in an inpatient setting. Australia and New Zealand Spinal Cord Society, Annual Scientific Meeting, Melbourne, Australia, November.

Fronek P, Kendall M, Ungerer G, Malt J, Geraghty T
Professional boundaries in spinal cord injury rehabilitation: Knowledge, comfort, experience and ethical decision-making in the multidisciplinary team.

Geraghty T
Living with equipment: a lifelong challenge for people with spinal cord injury. QHealth Medical Aids Subsidy Scheme Living with Equipment Symposium, Royal Brisbane and Women's Hospital, Brisbane, Australia, August.

Pregabalin in central neuropathic pain: a double blind placebo-controlled trial in pain following spinal cord injury. 14th Annual Scientific Meeting, Australasian Faculty of Rehabilitation Medicine, Cairns, Australia, May.

Geraghty T, Kendall M
State of anxiety approaching and following discharge: Client perceptions of physical recovery and environmental preparation as key contributors. Australian and New Zealand Spinal Cord Society, Annual Specific Meeting, Melbourne, November.


An Evidence based neurogenic bowel management program. Australian Faculty of Rehabilitation Medicine (AFRM) 14th Annual Scientific Meeting, Cairns, May.

Fronek P

**Public Service Relevant to Research**

Dr Tim Geraghty
Member, Scientific Program Committee, Australasian Faculty of Rehabilitation Medicine.

Member, Steering Committee: Spinal Cord Injury and other Neurological Conditions Research and Grants Assessment Committee, NSW Health.

Member, Steering Committee, Australasian Spinal Cord Injury Network.
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 Queensland Spinal Cord Injuries Service. Rehabilitation services are provided in the community in clients’ homes or in the home-like setting of the Transitional Rehabilitation Program accommodation. The Program is designed to relocate the final weeks of rehabilitation from the hospital setting to the community.

Research highlights within the Transitional Rehabilitation Program have included:

- Collaborative involvement with the Spinal Injuries Unit in the development and evaluation of a psycho-educational intervention aimed at assisting staff to improve their knowledge of and comfort in maintaining professional boundaries.
- Securing funding for the completion of a study investigating the nature of friendships following spinal cord injury.

Current Research Activities

- Longitudinal tracking of anxiety among people with spinal cord injury who are approaching community re-entry.
- Exploratory cluster analysis of community rehabilitation outcome among individuals with spinal cord injury and acquired brain injury.
- Social support following spinal cord injury: A qualitative examination of friendships.
- Professional boundaries: Development and evaluation of an intervention to address staff knowledge, comfort, attitudes and behaviour.

Financial Support

$31,109 Community Rehabilitation Research Scheme, Community Rehabilitation Workforce Project. Friendship following spinal cord injury: Developing a framework for clinical practice. Project grant (Kendall M, Kendall E).

Publications

1 article in press

Lectures and Presentations

Melissa Kendall

Exploratory cluster analysis of community rehabilitation outcome among individuals with spinal cord injury and acquired brain injury. Allied Health Research Forum, Brisbane, April.
Exploratory cluster analysis of community rehabilitation outcome among individuals with spinal cord injury and acquired brain injury. Australasian Faculty of Rehabilitation Medicine 14th Annual Scientific Meeting, Cairns, May.

Transition from Hospital to Home. Bridging Gaps in the Rehabilitation Continuum. Invited Lecture, University of Queensland, School of Health and Rehabilitation Sciences. Brisbane, August.

Transition from Hospital to Home. Bridging Gaps in the Rehabilitation Continuum. Invited Lecture, University of Queensland, School of Health and Rehabilitation Sciences. Brisbane, November.

Tadros M, Kendall M, Bellamy N, Geraghty T
Dual diagnosis: Traumatic brain injury complicating spinal cord injury in Queensland. Australasian Faculty of Rehabilitation Medicine 14th Annual Scientific Meeting, Cairns, May.

Dual diagnosis traumatic brain injury complicating spinal cord injury: an interstate comparison of incidence and outcome across Queensland and New South Wales Spinal Injuries Units. Australasian Faculty of Rehabilitation Medicine 14th Annual Scientific Meeting, Cairns, May.

Greg Ungerer
Invited workshop panel. ANZCoS Conference, Melbourne, November.

Annette Fisher
Environmental control access in an inpatient SIU. ANZCoS Conference, Melbourne, November.

Post Graduate Students
Ruth Barker, PhD, completed
Melissa Kendall, PhD, in progress

Awards
Melissa Kendall
Allied Health presentation award for paper presented at the Australian Faculty of Rehabilitation Medicine Conference in Cairns, May.

Public Service Relevant to Research
Melissa Kendall
Member, Princess Alexandra Hospital Allied Health Research Committee.
Member, Queensland Spinal Cord Injury Service Research Committee.
Review Panel, Princess Alexandra Hospital Allied Health Research Scholarships.
Reviewer, Disability and Rehabilitation.
Reviewer, Brain Injury.
Reviewer, Clinical Rehabilitation.
Reviewer, Spinal Cord.
Steering Committee Member, Outcome Measures Project for Community Based Rehabilitation Teams.
Convened and conducted Research Seminar Series presentations to all allied health, medical and nursing staff working in spinal cord injury and acquired brain injury rehabilitation at Princess Alexandra Hospital.
Spinal Outreach Team

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 Spinal Outreach 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.

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; exploring the factors which impede or facilitate societal participation for people with spinal cord injury in the early phase post discharge from hospital and gaining insight into the role played by significant others in the lives of people with spinal cord injury.

The major research achievement has been the completion of the third year of data collection in the long term outcomes in the 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. An evidence based review regarding the effectiveness of non pharmacological treatment for neuropathic pain was also completed.

Current Research Activities


Validation of telephone application of the Clinical Outcomes Variables Scale. (D Amsters, K Pershouse, P Kuipers, M Kendall, J Campbell).

Pain after spinal cord injury: Reliability of the Spinal Outreach Team Multidisciplinary Pain Assessment Tool. (J Nitz, C Mak, C Bayliss).

Evidence based review regarding the effectiveness of non pharmacological treatment for neuropathic pain in people with spinal cord injury. (C Bayliss, K Pershouse, R Barker).

Financial Support


$3,000 Health Advisory Unit, Queensland Health The effectiveness of non pharmacological treatment for neuropathic pain. Allied Health Evidence Based Review Grant. (Bayliss C, Pershouse K, Ede J, Nitz J, School of Health and Rehabilitation Sciences University of Queensland).
**Publications**

2 journal articles

**Lectures and Presentations**

**Lightbody S**

Spinal Cord Injury - the role of the Occupational Therapist. Lecture and tutorials presented to second year occupational therapy students at the University of Queensland in October.

**Hunter N**


**Pershouse K, Maugham L**

The Spinal Outreach Team 10 years on: Achievements and challenges in addressing needs in rural and remote areas. Paper presented at the Australian Faculty of Rehabilitation Medicine, Annual Scientific Meeting, Cairns, 2-5 May.

**Pershouse K, Barker R, Amsters D, Kendall M, Haines T**


**Barker R, Amsters D, Kendall M, Pershouse K, Haines T**

Reliability of the Clinical Outcome Variables Scale when administered by telephone in a Spinal Cord Injury population. Poster presented at the Australian and New Zealand Spinal Cord Society Annual Scientific Meeting, Melbourne, 16-18 November.

**Mak K, Nitz J, Bayliss C**

Reliability of a multidisciplinary pain screening tool to define the pain experienced by patients after spinal cord injury. Poster presented at the Australian and New Zealand Spinal Cord Society Annual Scientific Meeting, Melbourne, 16-18 November.

**Bayliss C, Pershouse K, Barker R**

Do non-pharmacological interventions reduce neuropathic pain in people with spinal cord injury: An Evidenced Based Review. Poster presented at the Australian and New Zealand Spinal Cord Society Annual Scientific Meeting, Melbourne, 16-18 November.

**Post Graduate Students**

Ruth Barker, PhD, completed

**Awards**

Kiley Pershouse and Lucy Maugham

Awarded prize for an Allied Health Abstract for the paper ‘The Spinal Outreach Team 10 years on: Achievements and challenges in addressing needs in rural and remote areas’, presented at the Australian Faculty of Rehabilitation Medicine, Annual Scientific Meeting, Cairns, 2-5 May.

**Public Service Relevant to Research**

Delena Amsters

Reviewer, Disability and Rehabilitation.

Ruth Barker

Member, Princess Alexandra Hospital Allied Health Research Committee.

Kiley Pershouse

Member, Princess Alexandra Hospital Allied Health Research Committee.
Radiation Oncology Services

Mater Radiation Oncology Centre

The Mater Radiation Oncology Centre operates as part of the Southern Zone Radiation Oncology Service, Princess Alexandra Hospital. The Centre treats approximately 2000 courses per year and is equipped with four linear accelerators which treat 150-160 patients per day. The referral base is broad and patients attend from the Mater campus along with patients from Princess Alexandra Hospital, Toowoomba and Darling Downs, Gold Coast and Ipswich. There is participation in multidisciplinary clinics at the Gold Coast via teleconferencing. The Centre is the sole provider in the Southern Area of radiation oncology services for gynaecology oncology, paediatric oncology and orbital brachytherapy.

A close collaboration has developed with Oncologists on the Mater site. Multidisciplinary clinics are held in breast, gynaecology, paediatrics, skin, lung, gastrointestinal and genitourinary malignancy with a strong emphasis on multidisciplinary management of patients with cancer, clinical research and teaching.

Involvement in a broad range of trials predominately under the auspices of the Trans Tasman Radiation Oncology Group has been undertaken. In the past year the Mater Centre has participated in fourteen clinical trials and had an increase in trial activity from fifty-nine in 2005 to eighty-two in 2006.

The Department was awarded Commonwealth Funding to develop an Oncology Telemedicine Program for patients living in rural areas on the Darling Downs. This year has seen the implementation of this service with ongoing analysis of outcomes.

Current Research Activities

Clinical Trials

A randomised trial of involved field radiotherapy versus involved field radiotherapy plus chemotherapy for Stage I – II low grade follicular lymphoma. TROG 99.03.

Tumour volume as an independent prognostic factor in patients with non-small cell lung cancer. TROG 99.05.

A prospective non-randomised study of chemotherapy and radiotherapy for Osteolymphoma TROG 99.04.

A randomised trial of preoperative radiotherapy for stage T3 adenocarcinoma of rectum TROG 01.04.

A randomised clinical trial of surgery versus surgery plus adjuvant radiotherapy for regional control in patients with completely resected macroscopic nodal metastatic melanoma TROG 02.01.

Staff

Associate Professor Michael Poulsen,
Director

Associate Professor Jonathan Ramsay

Dr Kumar Gogna

Dr Guy Bryant

Dr Judy Cox

Dr Tanya Holt

Dr Andrew Pullar

Dr Tiffany Daly

Dr Brigid Hickey

Dr Tao Mai

Simon McQuitty,
Director - Radiation Therapy Services

Dr Kym Nitschke,
Director, Therapeutic Physics

Pauline Rose,
Nurse Unit Manager

Kacy Baumann,
Senior Clinical Trials Coordinator

Adrienne See,
Clinical Trials Coordinator
A phase III study of Cisplatin, Tirapazamine and radiation vs. Cisplatin and radiation in locally advanced head and neck cancer TROG 02.02.

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 02.03.

A randomised phase III study in advanced oesophageal cancer to compare quality of life and palliation of dysphagia in patients treated with radiotherapy versus chemoradiotherapy. TROG 03.01.

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 03.04.

A phase III study of regional RT in early breast cancer (NCIC MA20). TROG 03.05.

A phase III study of the Timing of Intervention with Androgen Deprivation in prostate cancer patients with a rising PSA (TOAD). TROG 03.06.

A randomised phase II trial comparing 2 high-dose palliative chemoradiotherapy regimens in patients with locally advanced non-small cell lung cancer. TROG 03.07.

Phase III international randomised trial of Single vs. Multiple Fractions for Re-Irradiation of Painful Bone Metastases. TROG 03.08.

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). TROG 04.01.

Post-operative Concurrent Chemo-Radiotherapy vs. Post-operative Radiotherapy in High-Risk cutaneous Squamous Cell Carcinoma of the Head and Neck (POST). TROG 05.01.

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. (Merkel Cell).

Hypofractionated Radiotherapy for the Palliation of Patients with Advanced Head and Neck Cancer who are Unsuitable for an Attempt at Curative Treatment. (Palliative H&N).

Tolerability and Efficacy of Medihoney as treatment for radiation induced mucositis in Head and Neck cancer patients. (Mucositis).

**Other Research**

Long-term swallowing outcomes in patients with head and neck cancer: comparing non-surgical treatment regimens. (Bena Riddle, PhD research project).

Introduction of debulking agent for prostate patients to standardise rectal filling (David Rasmussen).

Paediatric resource kit (Alicia McCarthy and Laurie Sedgman)

Craniospinal compensation on Pinnacle (Tim Deegan).

Craniospinal brain dose audit (Carlos Noyola-Rodriguez and Jenny Bayada).

Use of lateral tattoos for pelvis field positioning (Tim Deegan and Belinda Eva).

Use of Vac Lok bags for chest patient stabilisation (Bronwyn Hilder).

Assessment of quality of life issues for young breast cancer patients (Deanna Tune).

Audit of random and systematic error for standard techniques (Tim Deegan).

Evaluation of alternative prostate techniques (Emily Wolfe and Thu Dang).

**Lectures and Presentations**

Bronwyn Hilder, Incidental findings from Planning CTs. Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Hobart.

Deanna Tune, Chinks in the Armour – A case study. Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Hobart.

Megan Carroll, Radiation Therapy for the Treatment of Plantar Fasciitis. Radiation Therapy Weekend, Gold Coast.

Amanda Donovan, Sexuality Issues Following Prostate Irradiation. Medical radiations meeting. Couran Cove.

Laurie Sedgman, Alicia McCarthy, Phoebe Darch, Paediatric and Radiation Therapy Incredible Kids – Partikidz. Radiation Therapy Weekend, Gold Coast.

**Radiation Oncology Medical Physics Research & Development Activities**

Scott Ruhle, Characterisation of a 6mev electron beam produced by a varian clinac 2100c using BEAMnrc Monte Carlo code. MSc research project – Queensland University of Technology.

Scott Crowe, Monte Carlo modelling of radiotherapy beam. Honours research project. Queensland University of Technology.

**Professional Representation**

Lisa Roberts, Overseas Assessment Panel of Australian Institute of Radiography.
Financial Support

Current NHMRC Grants
$61,000 NHMRC Project Grant (awarded 2003 for 3 years for randomised phase III trial on bladder cancer).

Other Grants
$92,824 Queensland Cancer Fund as a grant in recognition of clinical trial activity.
$255,000 Private Practice Trust Fund Grant (awarded for 3 years for Radiation Therapist Research position at the Mater).

Other Support
$20,000 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.

Publications
9 journal articles
1 article in press

Lectures and Presentations

Dr Michael Poulsen
Telemedicine – Does it have a role in lung cancer. Inaugural Lung Cancer Conference. June 30, Cairns.

SV Porceddu, B Rosser, B Burmeister, B Hickey, T Holt, K Baumann, MG Poulsen
Hypofractionated radiotherapy for the palliation of advanced head and neck cancer in patients unsuitable for curative treatment- “Hypo trial”. Presented at RANZCR meeting in Singapore.

Dr Guy Bryant
Radiotherapy for breast cancer in the elderly. MOGA/FRO Meeting. Sanctuary Cove, Queensland, August.

Dr Jonathan Ramsay
Management of Brain Tumours. Palliative Care Association Conference. Brisbane, March.
Breast Irradiation - what are the risks of going without? COSA Annual Meeting. Brisbane, November.

Dr Kumar Gogna
Chemoradiation in Bladder Cancer (with special reference to TROG Studies).
Academic medical Centre, University of Amsterdam, June.
Urological Society of Australasia NSW Meeting. Norfolk Island, October.
Faculty of RANZCR Annual Scientific Meeting. Singapore, November.
Tata- Memorial Hospital, Mumbai, India, November.
B.J. Medical College, Pune, India, December.

Post Graduate Students

Cathy Hargraves, Masters in Radiation Therapy, in progress
Alan Glyde, CT for Radiation Therapists, in progress
Carole McDonnell, CT for Radiation Therapists, in progress
Pauline Rose, PhD, in progress
James Gordon, MSc in Medical Physics, commenced
Bena Riddle, PhD, commenced
Scott Ruhle, MSc in Medical Physics, completed
Adrienne See, Post Graduate Certificate in Health Science (Clinical Trial Management), commenced
Jodie Webber, Masters in Economics, in progress
Craig Norvill, MSc in Medical Physics, completed

Awards

Bronwyn Hilder
Robert Bourne Travelling Grant to study Palliative Radiation Therapy Programs.

Mike Jenkins, Kirsty Davidson, Jennifer Biggs and Alison Jenkins
Awarded the grant for investigating the uses of oncology information systems.
Public Service Relevant to Research

Dr Michael Poulsen
Treasurer of Trans-Tasman Radiation Oncology Group.
Examiner for the RANZCR.
Branch Education Officer for the RANZCR.
Chairman of the Quality Improvement Committee of RANZCR.
Member, Queensland Co-operative Oncology Group.

Dr Jonathan Ramsay
Member, National Breast Advisory Committee.
Member, Scientific Committee for the Queensland Cancer Fund.
Medical Advisor for Peplin Biotech.

Dr Kumar Gogna
Member, Council for RANZCR and Convenor of Research Committee.
Organiser, Combined Urological Group.
Chairman, Clinical Trials Group at the Mater.
Member, Interview panel for appointment of Editor in Chief – Australasian Radiology Journal.

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, Australian Lymphoma Group.

Dr Tanya Holt
Supervisor of registrar training.
Examiner in Physics for the RANZCR.

Pauline Rose CNC
Advisory Committee member, Collaboration for Cancer Outcomes Research and Evaluation (National Group).
Clinical Trials committee Member, Radiation Oncology Services, Mater Centre (also Roxanne Nicholas, RN).

Simon McQuitty
Member, Radiography work-force steering committee.

Dr Kym Nitschke
Member, Queensland Health Working Party on Training, Education and Accreditation Program for Radiation Oncology Physicists.
Examiner, ACPSEM Radiation Oncology Medical Physics Accreditation Panel.
The Radiation Oncology Centre completed its fifth year of service. As in previous years there were significant increases in workload, staffing and patients taking part in clinical research studies. There were 194 patients out of 1173 entered into trials (17%), still making Princess Alexandra Hospital a very active centre and in the top three nationally. The number of trials has increased with both multi-centre and in-house studies recruiting more patients. Of particular note was the commencement of three projects run by allied health professionals, all of which have received some funding support. Associate Professor Sandro Porceddu was fortunate to be awarded a Smart Health Research Grant of $323,075 over five years in addition to his Queensland Cancer Fund Multi-state Grant $158,000 over two years for the POST trial TROG 05.01. Associate Professor Bryan Burmeister received a National Health and Medical Research Council grant of $295,000 over three years for the melanoma trial TROG 02.01.

New ventures into the field of translational research were commenced with Dr Andrew Pullar submitting a project involving micro-array assays in melanoma patients having radiation therapy. This is a unique project which is expected to commence in 2007. The next twelve months will see significant expansion in the Centre’s activities with the commencement of radiation therapy research studies, under the auspices of dedicated research radiation therapists. A general increase in the number of patients recruited into clinical trials is expected when the third linear accelerator becomes operational in 2007.

### Ongoing Research Trials

A randomised trial investigating the effect on biochemical (PSA) control and survival of different durations of adjuvant androgen deprivation in association with definitive radiation treatment for localised carcinoma of the prostate.

A phase III study of regional radiation therapy in early breast cancer.
A collaborative randomised phase III trial: the timing of intervention with androgen deprivation in prostate cancer patients with a rising PSA.

A randomised phase II study of two regimens of palliative chemo-radiation therapy in the management of locally advanced non small cell lung cancer.

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.

Post-operative concurrent chemo-radiotherapy versus post operative radiotherapy in high-risk cutaneous squamous cell carcinoma of the head and neck.

A phase III, randomised, double-blind, placebo-controlled study to evaluate the efficacy and safety of weekly doses of palifermin (recombinant human keratinocyte growth factor) for the reduction of oral mucositis in subjects with advanced head and neck cancer receiving adjuvant radiotherapy and chemotherapy.

Phase III randomised trial of concomitant radiation, cisplatin and tirapazamine versus concomitant radiation and cisplatin in patients with advanced head and neck cancer.

Pilot for a randomised comparison of anastrozole commenced before and continued during adjuvant radiotherapy for breast cancer versus anastrozole and subsequent anti-oestrogen therapy delayed until after radiotherapy.

Phase II study of fixed dose rate gemcitabine-oxaliplatin integrated with concomitant 5FU and 3-D conformal radiotherapy for the treatment of localised pancreatic cancer.

A randomised phase II study of preoperative chemotherapy versus preoperative on therapy for resectable carcinoma of the oesophagus or gastro-oesophageal junction.

Phase II study of weekly oxaliplatin with continuous infusion 5-fluorouracil and concurrent radiation for treatment of localised oesophageal carcinoma.

Phase 1- II trial of radiation dose escalation in stage 2B – 3 non-small cell lung cancer.

Hypofractionated radiotherapy for the palliation of patients with advanced head and neck cancer who are unsuitable for an attempt at curative treatment.

CT-PET guided management of the neck following definitive (chemo)radiotherapy in regional node positive head and neck cancer patients.

Trial of valproate as a single agent and in combination therapy for the treatment of head and neck squamous cell carcinoma.

Tolerability and efficacy of medihoney as treatment for radiation induced mucositis in head and neck cancer patients.

Long-term swallowing outcomes in head and neck cancer: Comparing non-surgical treatment regimens (Swallowing Management And RadioTherapy Trial – SMARTT)

Enhancing health after surgery for breast cancer.


A randomised multicentre trial of involved field radiotherapy versus involved field radiotherapy plus chemotherapy for stage 1-2 low grade follicular lymphoma.

A prospective, non-randomised study of chemotherapy and radiotherapy for osteolymphoma.

Tumour volume as an independent prognostic factor in non-small cell lung cancer.

A phase II study of idarubicin-based combined modality therapy in primary central nervous system lymphoma.

A randomised trial of preoperative radiotherapy for stage T3 adenocarcinoma of the rectum.

A randomised clinical trial of surgery versus surgery plus adjuvant radiotherapy for regional control in patients with completely resected macroscopic nodal metastatic melanoma.

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.

A feasibility study to evaluate adjuvant chemo-radiotherapy for gastric cancer.

Publications

13 journal articles
8 abstracts
1 book chapter
2 articles in press

Lectures and Presentations

Associate Professor Bryan Burmeister
Dr Jennifer Harvey

Associate Professor Sandro Porceddu
Regional control of the neck following chemo-radiotherapy in node positive mucosal head and neck squamous cell carcinoma based on pre-treatment nodal size. 6th Annual Health and Medical Conference of Queensland. Brisbane.
Trans Tasman Radiation Oncology Group: A Current Overview of Trial Activity and Future Directions. Faculty of Radiation Oncology Meeting. Singapore.
Control of the neck following chemo-radiotherapy in node positive mucosal head and neck squamous cell carcinoma based on pre-treatment nodal size. Australian and New Zealand Head and Neck Society Annual General Meeting. New Zealand.

Public Service Relevant to Research

Associate Professor Bryan Burmeister
Trans Tasman Radiation Oncology Group: Chair of Scientific Committee. President–elect.
Queensland Cancer Fund: Chair of Queensland Co-operative Oncology Group.
Member of Medical and Scientific Advisory Committee.
Australasian Gastro-intestinal Trials Group: Member of Scientific Advisory Committee.

Australian Cancer Network: Member of Colorectal Guidelines Working Party. Member of Melanoma Guidelines Working Party.
Royal Australian and New Zealand College of Radiologists: Member of Faculty of Radiation Oncology Research Committee.
Australian Department of Health and Aging: Member of Medical and Scientific Advisory Committee (PET review).

Dr Jennifer Harvey
Trans Tasman Radiation Oncology Group.
ANZ Breast Cancer Trials Group.

Dr Margot Lehman
Faculty of Radiation Oncology Genito-urinary Interest Group (Executive Committee member).

Associate Professor Sandro Porceddu
Board Member, Royal Australian and New Zealand College of Radiologists, Faculty of Radiation Oncology.
Board Member, Trans Tasman Radiation Oncology Group.

Dr Andrew Pullar
Paediatric Radiation Oncology Special Interest Group.
Convenor of RANZCR pre-part II exam course 2006.

Bena Riddle
Portfolio leader for Speech Pathology Australia Continuing Professional Development, Queensland Branch.
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 by the Department, 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.

### Current Research Activities

The main areas of research are in the areas of sleep medicine (mainly sleep disordered breathing), airway disease (mainly asthma), COPD, lung cancer, pleural disease, respiratory physiology and respiratory infection.

**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.

**Swallow dysfunction in COPD.** Prevalence and effects of speech pathology intervention. Collaboration with Speech Pathology.

**Exubera:** Exubera® (Insulin dry powder pulmonary inhaler) vs. Avandia® as add-on therapy vs. Exubera in patients with Type 2 diabetes.

**Lung Cancer:** International, randomised, open-label, Phase 3 trial of Paclitaxel/Carboplatin plus PF 3512676 versus Paclitaxel/Carboplatin alone as first-line treatment of patients with advanced non-small cell lung cancer.
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).

Screening of community populations with Type 2 diabetes: utility of questionnaires and a Type 4 monitoring device (ApneaLink).

Mechanism of sleep disordered breathing in patients with end-stage renal failure on haemodialysis.

Use of autotitrating CPAP in the home as a means of determining optimal CPAP settings, compared to attended laboratory polysomnography.

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, Princess Alexandra Hospital and Austin and Repatriation Medical Centre, Melbourne).

Bleomycin lung toxicity and MUC-1: to determine the usefulness of the immunologic tumour marker MUC-1 in predicting the development of blemycing lung toxicity and lung function changes (Collaboration with Department of Immunology, Haematology and Oncology).

Pleuroscopy: a) Effect of pleuroscopic drainage on exercise and lung physiology in patients with pleural effusion. b) Effect of pleuroscopic pleurodesis on dyspnea exercise and cardiorespiratory physiology in patients with pleural effusion. (Collaboration with Professor Lewis Adams, Griffith University, Gold Coast). c) Effect of pleuroscopic pleurodesis on chest wall and diaphragm displacement and function. (Collaboration with Dr Peter Eastwood, Sir Charles Gairdner Hospital, Dr Stephen Morrison, Royal Brisbane Hospital, Dr John Coucher, Radiology).

Pneumothorax: pleuroscopic pleurodesis. Collaboration between emergency medicine and thoracic surgery.

Chronic cough: Clinical characteristics and diagnostic/management outcomes: collaboration with Professor Ann Chang (Respiratory Medicine, Royal Children’s Hospital) and Professor Peter Gibson (Respiratory Medicine, John Hunter Hospital, Newcastle).

Pulmonary hypertension and echocardiographic assessment of the right ventricle with exacerbations of COPD: Honours project Lilly Dang under supervision of Professor Tom Marwick (Cardiology) and Luke Garske.

Pulmonary rehabilitation: intermittent exercise training: collaboration with Dr Norm Morris and Professor Lewis Adams, Griffith University, Gold Coast.


A Phase II Trial of concurrent chemotherapy with Intravenous Cisplatin and Vinorelbine and radiotherapy followed by consolidation chemotherapy with oral Vinorelbine in locally advanced non-small cell lung cancer.


Publications

14 journal articles
8 abstracts

Public Service Relevant to Research

Associate Professor John Armstrong
Member, Sleep Laboratory Accreditation Panel.
Thoracic Society of Australia and New Zealand and Australasian Sleep Association.
Member, Brisbane South Respiratory Services Advisory Committee.
Member, Alert Doctors Strategy Steering Committee.
Member, Medical Assessment Tribunals.
Q-Comp (Workers’ compensation regulatory authority).

Associate Professor Charles Mitchell
Chair, Anti-Smoking Committee, Queensland Cancer Fund.
Chair, Queensland Health Medication Safety Implementation Group.
Member, Clinical Examinations Committee, Australian Medical Council.
Member, Queensland Health Drug Advisory Committee.
Member, Committee of Management of Australian and New Zealand Association of Medical Education.
Member, Curriculum and Training Program Working Group, National Prescribing Service.

Member, Physician Educator Program Planning Group, Royal Australasian College of Physicians.

Vice President, Asthma Foundation of Queensland.

**Dr Craig Hukins**
Conference Chair, Australasian Sleep Association.

Member, Conference Organising Committee, Sleep 2007 Congress.

Member, Conference Organising Committee, Sleep & Breathing Congress 2007.

Member, Sleep Curriculum Development Committee, ASA/TSANZ.

**Dr Luke Garske**
Member, Curriculum Development Committee, TSANZ.

Faculty member, TSANZ thoracoscopy course.

**Dr Michelle Murphy**
Secretary/Treasurer, Thoracic Society of Queensland.

Secretary, Thoracic Society of Australia and New Zealand (Qld Branch).

**Brenton Eckert**
Member, Spirometry Training, TSANZ.

**Skye McLennan**
Regional Board Representative, ANZSRS.
This year has seen the continuation of the Rheumatology Department’s Early Arthritis Clinic by Professor Thomas and its prospective work on cardiovascular diseases. Professor Matthew Brown has joined the team, and together with his Research Nurse, Linda Bradbury, has established an Early Ankylosing Spondylitis Clinic. The Clinic has proved enormously popular, indicating an unmet need within the community and will provide much data for analysis.

Trials continue with biologic drugs, mainly TNF blockers, which are proving to be highly effective in inflammatory joint disease.

**Current Research Activities**

**Clinical Trials**

- Abbott DE013 RA Study 2000/133 (Humira) Phase III.
- Abbott Realise Post Marketing RA Study 2003/075 (Humira).
- Bristol-Myers Squibb RA Study 2002/160 (Abatacept) Phase III.
- Roche WA 17824 RA Study 2005/070 Phase III.
- Roche WA 18696 RA Study 2006/057 Phase III.

**Other Research**

- Early Rheumatoid Arthritis Clinic-observational study of early intervention within a specific direct referral service.
- Early Access Ankylosing Spondylitis clinic.

**Financial Support**

- $5,400 Phase III Abbott Realise Post Marketing (Vecchio P).
- $10,800 Bristol-Myers Squibb Phase III Bristol-Myers Squibb (Vecchio P).
- $6,700 Phase III Study Roche (Vecchio P).

**Publications**

- 10 abstracts

*Please note that Professors Thomas’ and Brown’s are included in the Centre for Immunology and Cancer Research report.*
The Social Work Department was represented on the Golden Jubilee Program for Princess Alexandra Hospital Week, via the presentation of a paper relating to professional boundaries.

Despite the absence of a joint appointment with the University of Queensland at present, the Social Work Department remains interested in developing its research links not only with that University but also Griffith University following the establishment of the Bachelor of Social Work degree program.

Current Research Activities

Professional boundaries: staff knowledge, comfort, attitudes and behaviour. Design and evaluation of an education program. Multidisciplinary research project.

Financial Support


Publications

3 journal articles
Lectures and Presentations

Patricia Fronek

Working in Human Services 3039HSV, School of Social Work, Griffith University (Invited lecture).

Professional Boundaries, invited speaker to present paper at Princess Alexandra Hospital Week, Golden Jubilee August, Princess Alexandra Hospital.

E Fitzpatrick E & S McKain

Post Graduate Students

Patricia Fronek, PhD, in progress

Public Service Relevant to Research

Patricia Fronek
Appointment to Queensland Health’s Panel of External Expert Reviewers to assist Queensland Health Human Research Ethics Committees.

Sue Cumming
President, Queensland Branch Australian Association of Social Workers.
The Speech Pathology Department had another year of very active research growth. Research activities continued to build on the two established main areas of research interest for the Department; acquired brain injury (in particular stroke, brain injury, neurosurgery and Parkinson’s disease), and head and neck cancer. This year has seen continued research partnerships with other clinical units such as Radiation Oncology, and with Speech Pathology Departments at local, national and international levels. Keen interest from Department staff to instigate and actively participate in research projects has seen a further increase in the percentage of research projects initiated at the Hospital, employment of dedicated research assistants, clinician involvement in research, and a growing number of postgraduate students based at the Hospital, and supervised by the Research Fellow. The ensuing conference presentations and publications arising from the Department’s research has helped to build on the existing national and international profile with presentations at two national conferences: in Sydney at the Australia Society for the Study of Brain Impairment Conference and Aphasiology Symposium of Australia, and internationally at the American Speech and Hearing Association National Convention, Miami Florida, USA.

These developments have been led and coordinated by the conjoint research fellow Dr Petrea Cornwell with support from the senior staff of the Speech Pathology Department. Petrea has continued to foster the existing strong links and extensive collaborations with the University of Queensland’s Division of Speech Pathology, School of Health and Rehabilitation Sciences and the affiliated on-site Motor Speech Research Centre. Stronger links have been forged between the conjoint research fellows in Occupational Therapy and Physiotherapy. These collaborations have resulted in the development of multidisciplinary research projects, joint supervision of postgraduate students, and a successful funding application. The Department continues to benefit from the research contributions made by advanced clinicians. Staff also play a key role in allied health research planning and coordination for the
Division of Clinical Support Services with Dr Jenny Lethlean as the Chair of the Princess Alexandra Hospital Allied Health Research Committee.

**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, P Cornwell, M Parkin, W Coman).


**Other Research**
An investigation of the service and support needs of individuals with acquired brain injury and their families and carers during and after transition from hospital to the community. (L Worrall, J Fleming, P Cornwell, T Haines, T Ownsworth, M Kendall, L Chenoweth).

Understanding the differential impact of acoustic speech parameters on the severity of motor speech disorders: effects on speech intelligibility and naturalness. (P Cornwell, M McAuliffe).

The evaluation of multidisciplinary goals and goal setting processes in an adult rehabilitation setting. (P Cornwell, J Fleming, T Haines, E Leach).

Determining the effects of ageing on the temporal and spectral acoustic characteristics of articulatory function. (P Cornwell, L Wimberley, V Chamberlin, T Flax, T Huang).


Physiological investigation of laryngeal dysfunction following carotid endarterectomy. (B Murdoch, P Cornwell, 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).


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. Sponsor – A Turner).

Articulatory Function in Adults following Traumatic Brain Injury. (M Kuruvilla, B Murdoch, J Goozee, P Addis, R Hazelton).


High level language impairments following primary cerebellar ischaemic lesions. (B Whelan, B Murdoch, L Cahill, G Hall. Research assistants – S Hassan, M Oliver).


Language recovery and lexical semantic processing in bilingual aphasia. (S Siyambalapitiya, H Chenery, D Copland. Sponsor – W McCallum).


Hemispheric contribution to language: A divided visual field investigation of semantic processing following unilateral lesion. (E Smith, D Copeland, H Chenery. Sponsors – J Lethlean, L Smith).


**Financial Support**

$1,300 Garnett Passe Rodney Williams Memorial Foundation. QOL, cost effectiveness, survival and functional outcomes following differential management of laryngeal cancer. (Coman W, Murdoch B, Ward E, Cahill L).

$10,000 CONROD. Rehabilitation of articulatory dysfunction in adults following TBI using 3Dimensional graphic modelling of the vocal tract. (Murdoch B, Goozee J, Cahill L, Scott D, Jacobs P).

$1,700 ATOS Medical. Evaluation of heat and moisture systems as a treatment option in pulmonary rehabilitation after total laryngectomy or pharyngectomy. (Hancock K, Cahill L, Parkin M, Coman W).
$5,000 The University of Queensland. Start-Up Grant. Towards an understanding of the motor speech disorders: A parametric acoustic approach to classifying the dysarthrias. (Cornwell P, McAuliffe M).

$48,177 Disability Services Queensland. An investigation of the service and support needs of individuals with acquired brain injury and their families and carers during and after transition from hospital to the community. Consultancy (Worrall L, Fleming J, Cornwell P, Haines T, Ownsworth T, Kendall M, Chenoweth L).

Publications
3 journal articles
1 abstract
2 articles in press

Lectures and Presentations
Do PTA and dysarthria treatment mix? Preliminary findings. 29th Annual Brain Impairment Conference. The Australian Society for the Study of Brain Impairment. Sydney, Australia, April.

Wenke R, Theodoros D, & Cornwell P

Cornwell P, McAuliffe M, Murdoch B, Ozanne A

Ward E, Agius E, Solley M, Cornwell P, & Jones C

Lethlean J

Hancock K, Riddle B, Conroy A-L, White J
Swallowing and Communication Management in Head and Neck Cancer Speech Pathology Australia Workshop, Brisbane, October.

Post Graduate Students
R Wenke, PhD, in progress
B Riddle, PhD, commenced
B Turner, PhD, commenced
V Chamberlin, MSpPath, completed
T Flax, MSpPath, completed
T Huang, MSpPath, completed
B Wadsworth, MPhil, in progress

Awards
Bena Riddle

Public Service Relevant to Research
Petrea Cornwell
Reviewer, European Journal of Paediatric Neurology.
Reviewer, New Zealand Journal of Speech and Language Therapy.
Reviewer, Health Review Board of Ireland Research Project Grants.
Reviewer, Speech Pathology Australia Clinician and Student Research Grants.
Member, Scientific Review Committee, 2007 National Conference Speech Pathology Australia.
Member, Scientific Affairs Portfolio, Queensland Branch of Speech Pathology Australia.
Session Chair, Quality of Care Enhancing Quality of Life, PA Week August 2006.

Aimee Turner
Portfolio Leader, Scientific Affairs Committee, Queensland Branch of Speech Pathology Australia.
Reviewer, Speech Pathology Australia Clinician and Student Research Grants.

Jennifer Lethlean
Reviewer, Clinical Support Services, Princess Alexandra Hospital Allied Health Research Scholarships.
Reviewer, Cancer Collaborative Group PhD Scholarships and Collaborative Surgeons’ Grants.
Chair, Allied Health Research Committee, Princess Alexandra Hospital.
Reviewer, Scientific Review Panel of the Princess Alexandra Hospital Human Research Ethics Committee.
In 2006 the Therapeutics Research Unit continued to study the spectrum of therapeutics from the chemistry of drugs (including drug design and natural products), the effects drugs have on the body (pharmacology and toxicology), the effects the body has on drugs (pharmacokinetics and drug delivery) through to how drugs can be best used to treat disease (drug delivery and quality use of medicines) for patients. The wide range of research funding sources (National Health and Medical Research, the Australian Research Council, the pharmaceutical industry, the Australian and New Zealand College of Anaesthetists, the Princess Alexandra Hospital and its Research Foundation, the University of Queensland and the Lions Medical Research Foundation) reflects the broad approach by the Unit to therapeutics. Twenty-two peer reviewed papers were published; $1.37 million was provided through competitive grants; and nine invited international presentations were given during the year.

A major highlight is the recent purchase of a DermaInspect Multiphoton Confocal Microscopy system, suitable for non-invasive skin microscopy in patients, the first of its kind in Australia. The system will allow the Unit to observe penetration of drugs into living skin in real time and potentially to study skin disease including melanoma and other skin cancers without biopsies. This acquisition involved Princess Alexandra Hospital dermatologists, the Centre for Immunology and Cancer Research, the Princess Alexandra Hospital Practice Foundation, the Skin Cancer Foundation, the University Physics Group and the School and Faculty of Medicine. Together with the Liquid Chromatography Tandem Mass Spectrometer purchased in 2005, the microscopy system will allow the group to extend collaborative research into dermatology, cancer, cardiovascular disease, hepatology, hypertension, diabetes and endocrinology, and drug monitoring of patients with burns and or sepsis. (http://www.som.uq.edu.au/som/Research/therapeutics.shtml)
Current Research Activities

Clinical Trials
Management of burn injury: fluid dynamics and antibiotic pharmacokinetics.

Using microdialysis for pharmacokinetic modelling of piperacillin tazobactam (continuous infusion or intermittent bolus dosing) in critically ill septic patients.

Using microdialysis for pharmacokinetic modelling of cefepime (continuous infusion or intermittent bolus dosing) in critically ill septic patients.

Using microdialysis for pharmacokinetic modelling of meropenem (continuous infusion or intermittent bolus dosing) in critically ill septic patients.

Microdialysis analysis of interstitial antibiotic concentrations in burn and other critically ill patients.

Other Research
Pharmacokinetics and liver vascularity.

In vivo multi-photon tomography of skin.

The biology of HMG CoA reductase inhibitors in patients with sepsis.

Estimation of drugs, peptides and metabolites using HPLC-Mass-spectrometry-microdialysis.

Dialysis-assisted Fibre-Optic Spectroscopy (DAFOS) for monitoring drug concentration in situ.

Altered hepatic pharmacokinetics as a consequence of drug- and disease-induced changes in hepatic vascularity.

Pharmacokinetic Modelling of Various B-lactam antibiotics in critically-ill patients using microdialysis.

Optimal antibiotic dosing in burns: Fluid dynamics and drug tissue pharmacokinetics.

Evaluation of topical delivery of therapeutic compounds by ultrasound and dermal abrasion.

Modelling of transdermal transport using computational molecular simulation.

Patents

Financial Support

Current NHMRC Grants
$160,500. Pharmacokinetics and liver vascularity. Project grant (Roberts M, Hung, D, Crawford D).
$156,500. Continuing Research Fellowship. Project grant (Roberts M).

Other Grants
$60,000 ARC. Relationship between melanosome distribution and skin colour. Research Fellowship (Roberts M, Zvyagin AV, Anissimov YG, Govindaragan R, Loy DJ).
$47,000 Princess Alexandra Hospital. Private Practice Trust Fund contribution (Roberts M).
$20,000 PA Foundation. Block funding (Roberts M).
$90,000 ARC. Modelling of transdermal transport using computational molecular simulation. APD Research Fellowship (Jepps O).
$110,000 ARC. Micro-nanoprojection patches for minimally-invasive and targeted delivery of genes and drugs to skin cells: from concept to technology platform. Research Fellowship (Kendall MA, Roberts MS).

Publications
22 journal articles
10 abstracts
1 book chapter

Lectures and Presentations

Professor Michael Roberts
Invited Speaker and member of Scientific Advisory Committee - Perspectives in Percutaneous Penetration International Conference in France, April.
Invited Speaker at 6th International Conference and Workshop on Cell Culture and in vitro Models for Drug Absorption and Delivery, at Saarland University, Germany, March.
Invited Speaker at FDA public hearing on the science of nanomaterials, Washington DC, USA.
Invited Speaker at Pfizer, Ann Arbor, USA, October.
Invited Speaker at American Association of Pharmaceutical Sciences Meeting, San Antonio, USA, October.
Invited speaker International Skin Pharmacology (ISP) Meeting, Rome, UK, November.
Invited speaker PKUK, Sheffield, UK, November.
Invited speaker to Johnson & Johnson (Asia-Pacific) Singapore, November.
Invited Speaker at Australasian Pharmaceutical Science Association Meeting in Adelaide, December.

Post Graduate Students
Brett MacFarlane, PhD, completed
Kanchana Ranasinghe, PhD, in progress
Gihan Gunawardena, PhD, in progress
Kent Fanning, PhD, in progress
Petr Kruger, PhD, in progress
Nadeeka Dissanayaka, PhD, in progress
John Chapman, PhD, in progress
Ken Newton, PhD, in progress
Ya Ting (Michelle) Wu, PhD, commenced
Jason Roberts, PhD, commenced
Public Service Relevant to Research

Professor Michael Roberts

Presentation to Lions Medical Research Foundation.

Elected Co-Chair, Gordon Research Conference on “Barrier Function of Mammalian Skin” at Salve Regina University in Rhode Island, August.

Committee Member, National Health and Medical Research Council Grant Panels.

Member, Scientific Advisory Board, Perspectives in Percutaneous Penetration.

Elected Member, Pharmaceutical Subcommittee of the Australian Drug Evaluation Committee.

Member, University of Queensland’s School of Medicine Research Committee.

Member, Princess Alexandra Hospital’s Research Committee.

Member, Program Committee, Pharmaceutical Science World Congress for 3rd Conference to be held in Leiden 2007.

Leader, Task Force Australian Rural Industries Research Development Corporation advising on scientific issues related to registration of tea tree oil in Europe.

Elected Member, Australian Government Chemical Safety Committee.

Associate Editor, Skin Pharmacology and Applied Physiology.


Editorial Board, Current Drug Delivery.

Editorial Board, Clinical Pharmacokinetics.

Editorial Advisory Board, Pharmaceutical Research.

Editorial Adviser, Pharmacy and Pharmacology Communications.

Editorial Board, Drug Metabolism & Pharmacokinetics.

Editorial Board, Chinese Journal of Clinical Pharmacology and Therapeutics.
The Department of Urology continues to provide comprehensive health care for persons with acute and chronic urological disorders and urological malignancies. Occasions of service provided ranged from medical consultation, urodynamics investigations, continence advisement, minor and major urological surgery. The service 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. Collaborations continued 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, the Queensland University of Technology Hormone Dependant Cancer Laboratory. Further successful collaborations were established in 2006 with the Department of Respiratory Medicine at the Princess Alexandra Hospital and Logan Hospital and the Department of Cardiothoracic Medicine, the Centre for Diabetes and Endocrine Research, the Centre for Immunology and Cancer Research based at the Princess Alexandra Hospital and the Institute of Health and Biomedical Innovation, Queensland University of Technology. The results of these collaborations were well received at the 59th Annual Scientific Meeting of the Urological Society of Australasia which was held in Brisbane in March of 2006.

The main research focus of the Urology Department is to improve the outcomes and quality of life of patients with urological complications and primary or secondary malignancies. This year saw the Department conduct the “UpSkilling in Urology Nursing” workshop providing evidenced based education to nurses based at the Hospital and other metropolitan and regional health care facilities. 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 and epidemiological research focused on finding new, effective and less toxic means of treating patients with urological malignancies. The Department continued and expanded international collaborations with UK based research groups 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.

Staff

Dr David L Nicol,  
Director Urology and Renal Transplant,  
Associate Professor of Surgery  
(University of Queensland), Adjunct Professor School of Life Sciences  
(Queensland University of Technology)

Dr Peter Burke,  
Urologist

Dr Peter Campbell,  
Urologist

Dr Ross Cartmill,  
Urologist

Dr Peter Heathcote,  
Urologist

Dr Roger Hinsch,  
Urologist

Dr Graham Holmes,  
Urologist

Dr Peter Mactaggert,  
Urologist

Dr Greg Malone,  
Urologist

Dr Timothy Nathan,  
Urologist
Current Research Activities

Clinical Trials
A Randomised, double blind, parallel group trial comparing Cosudex 150mg once daily with Placebo in patients with Non-Metastatic Prostate cancer.

A phase III, randomized, Double-blind, Placebo-Controlled study of the safety and efficacy of 10mg Atrasentan in Men with Non-metastatic, Hormone-Refractory Prostate Cancer.

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, Extension study of the safety and efficacy of 10mg Atrasentan in Men with Hormone-Refractory Prostate Cancer.

Long - Term, Open-Label extension trial for subjects completing the phase 3 trial of Fesoterodine (SP584) for the treatment of Overactive Bladder Syndrome.

A Randomized, 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, randomized, open-label, multi-centre clinical trial of Zoledronic acid (Zometa) in males receiving androgen deprivation therapy for advanced prostate cancer.

A Randomized, double-blind, placebo-controlled, multi-centre phase 3 study of Denosumab on prolonging bone metastasis-free survival in men with hormone-refractory prostate cancer.

Efficacy study of HP749, 20mg twice-daily versus placebo in patients with Overactive Bladder.

Other Research
Establishment of a human species-specific bone metastasis model in SCID mice and assessment of the functional role of Prostate Specific Antigen and other Kallikreins in Prostate Cancer Bone Metastasis.

Human Papillomavirus (HPV) Status of Prostate Tissues. Is HPV associated with Prostate Cancer?

The Mechanism of Tumourgenesis and Cancer Progression in Renal, Bladder, Testis and Prostate Tissue.

Australian Prostate Cancer Collaboration Bio-Resource.

Prostate Secretion Study.

Molecular and Phenotypic Analysis of Primary Cell Lines Established from Urological Malignancies.

Prevalence of Prostate Specific Antigen. Testing By Age Group Among Queensland Men.

Prostate Specific Antigen testing by geographic remoteness and socioeconomic disadvantage: Queensland, 2003.
Laparoscopic vs open living donor nephrectomy: a contemporary series from one centre.

Post-operative mortality following Open, Partial and Laparoscopic Nephrectomy for Renal Cancers.

Financial Support

Current NHMRC Grants
$420,000 Australian Prostate Cancer Collaboration (APCC) Bio-resource. Enabling Grant (Clements J, Nicol D) Queensland University of Technology.

Grants
$35,782 ONYVAX. Molecular and phenotypic analysis of primary cell lines established from urological malignancies. Project Grant (Clements J, Nicol D) Queensland Health, Queensland University of Technology, Princess Alexandra Hospital, ONYVAX.

Other Support
$420 Astra Zeneca Pharmaceuticals. A Randomised, double blind, parallel group trial comparing Cosudex 150mg once daily with Placebo in patients with Non-Metastatic Prostate cancer (Nicol D).


$1,675 A phase III, Extension study of the safety and efficacy of 10mg Atrasentan in Men with metastatic, Hormone-Refractory Prostate Cancer.

$14,085 Schwarz Pharma. Long -Term, Open-Label extension trial for subjects completing the phase III trial of Fesoterodine (SP584) for the treatment of Overactive Bladder Syndrome.

$4,250 GlaxoSmithKline. A Randomized, 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. (Nicol D)

$2,404 Novartis. A phase III, parallel group, randomized, open-label, multi-centre clinical trial of Zoledronic acid (Zometa) in males receiving androgen deprivation therapy for advanced prostate cancer. (Nicol D).


$26,000 Orion Clinical Services. UG 058-0204: Efficacy study of HP749, 20mg twice-daily versus placebo in patients with OAB. (Nicol D).

Publications

8 journal articles
12 abstracts
4 articles in press
**Lectures and Presentations**

**Beth Morrison, David Nicol, Judith Clements, Peter Heathcote**


**Dr Peter Heathcote**


**Colleen Marsh**

Urinary Continence Overview UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

Management of Supra Pubic Catheters. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

Catheter Care and Patient Education. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

Catheter Specifics. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

**Pauline King**

Catheter Troubleshooting. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

**Dr Kiran Hazratwala**

Urological Procedures. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

**Dr Peter Mactaggart**

Pathophysiology of Urinary Continence. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

**Glen Waller**

Bladder Irrigations. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

Indication and Contraindications for Supra Pubic Catheters. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

**Peter Morrison**

Overview of the Lower Urinary Tract. UpSkilling in Urology Nursing Workshop. Princess Alexandra Hospital, April.

**A Antonssen, D McMillan, B Morrison, RA Gardiner, DL Nicol, N McMillan.**

The role of human papillomaviruses in the development of prostate cancer. Australian Prostate Cancer Collaboration Eighth Annual Meeting Garvin Institute of Medical Research. NSW, October.

**Gail Frohloff**


**Post Graduate Students**

**Dr Ian Vela, PhD, commenced**

**Retnagowri Rajandram, PhD, in progress**

**Mitchell Lawrence, PhD, completed**
The Vascular Medicine Department provides a clinical service in the diagnosis and management of arterial, venous and lymphatic diseases. Research activities have included the investigation of vascular diagnostic techniques and participation in a number of clinical trials. Teaching activities have included teaching medical students; FRACP part 1 candidates, radiology and vascular surgery registrars and vascular scientists.

**Current Research Activities**

Quip Funded Project. Identifying Issues for Compression Therapy Non-concordance in Patients with Venous Leg Ulceration within the Hospital Outpatient Wound Management Clinic.

**Clinical Trials**

A Phase III randomised, double blind, parallel-group study of the efficacy and safety of oral dabigatran etexilate (150 mg bid) compared to warfarin (INR 2.0-3.0) for 6 month treatment of acute symptomatic venous thromboembolism, following initial treatment (5-10 days) with a parenteral anticoagulant approved for this indication.

A Phase III, randomised, multicentre, double-blind, parallel-group, active controlled study to evaluate the efficacy and safety of oral dabigatran etexilate (150 mg bid) compared to warfarin (INR 2.0-3.0) for the secondary prevention of venous thromboembolism.

Bosentan Patient Registry.

A Phase III, Multicentre, Multi-National, Randomised, Partial Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Alfimeprase in Subjects With Acute Peripheral Arterial Occlusion (HA004).

Once daily oral direct factor Xa inhibitor BAY 59-7939 in patients with acute symptomatic deep vein thrombosis. The EINSTEIN-DVT dose-finding study.

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. NHMRC: ASPIRE ASPIrin to prevent REcurrent venous thromboembolism.

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 six months of treatment with vitamin K antagonist or SR34006.

A multicentre, international, randomized, open-label, assessor-blind, non-inferiority study comparing the efficacy and safety of once-weekly subcutaneous SR34006 with the combination of (LMW) heparin and vitamin K antagonist (VKA) in the treatment of acute symptomatic deep vein thrombosis.
Clopidogrel for high artherothombotic risk and ischemic stabilization, management and avoidance.

Other Research
The Response of Cells to Chronic Wound Fluid in Combination with IGF: VN Complexes Prior to and Following Treatment with Compression Bandaging. (QUT Project).


Financial Support

Grants
NHMRC Grant 2006. Identifying the relationship between biochemical markers and wound healing in chronic venous leg ulcers treated with compression therapy. (Edwards H, Upton Z, Findlayson K, Gibbs H)

$9,500.00 Quip. Identifying Issues for Compression Therapy Non-concordance in Patients with Venous Leg Ulceration within the Princess Alexandra Hospital Outpatient Wound Management Clinic. (Dr Harry Gibbs Michelle Roch RN)

Other Support
$47,950 Bayer Australia.
$11,828 Boehringer Ingelheim.
$450.00 National Health and Medical Research Council.
$2,587 Nuvelo.
$14,477 PRA International.
$60,696 Sanofi-Aventis.
$3,450 The University of Sydney.

Publications
4 Journal articles

Lectures and Presentations

H Gibbs, S McKenzie, L de Villiers, D Leggett, J Harper, M Neels

Vascular 2006 - Conference. Cairns Convention Centre, Cairns, Australia.

Combined meeting of The Australian and New Zealand Society for Vascular Surgery.

The ANZSVS Vascular Imaging Symposium.

The QLD Chapter of the Society for Vascular Nurses.

The ANZ Chapter of the International Union of Angiology.

Alice Wuensche
The Accuracy of Ultrasound for Determining the Extent of Residual Deep Vein Thrombus.

T O’Keefe & Harry Gibbs
Atherosclerotic Risk Factor Management.

Renea Collins & Harry Gibbs
Venous Thromboembolism Prevention.

Harry Gibbs
Uncommon Carotid Pathologies and Pitfalls in Carotid Duplex Evaluation and Interpretation.

Options for the Treatment of Venous Disease and what Information the Clinician Requires from the Vascular Laboratory.

Optimisation of Vascular Risk Factor Control in Vascular Surgery Patients - The Princess Alexandra Hospital Experience.

New Drugs for Venous Thromboembolic Disease.

M Pratt, Harry Gibbs
Early Results in a Nurse Led Vascular Leg Ulcer Clinic.

C Wright, Harry Gibbs
Use of Prostaglandin Infusions in Vascular Patients.

Public Service Relevant to Research

Dr Harry Gibbs
Member, Organising Committee for Vascular 2006 Conference, Annual Scientific Meeting, ANZ Society for Vascular Surgery.

Advisor, Board of International Union of Angiology.

Reviewer for the journals - Primary Intention; International Angiology.
The Department of Vascular Surgery is a participant in the International Carotid Stenting versus Surgery trial. Dr Tim McGahan is the local supervisor of this trial.

Nurse Unit Manager, Theresa O’Keefe, coordinated the Nursing Presentation Section at the Annual Scientific Meeting of the Australian New Zealand Society of Vascular Surgery in Cairns 2006. Claudia Smith won Best Nursing Presentation and Megan Pratt also presented a Nursing Paper.

Senior Vascular Registrar, Dr Walid Mohabbat, presented a paper on stenting of the superficial femoral artery at the Annual Scientific Meeting of the Australian New Zealand Society of Vascular Surgery in Cairns 2006.

Dr Steven Gett and Dr Mark Ray continue to develop endovascular strategies for the management of patients with vascular disease.

Dr Murray Ogg as Unit Data Manager strengthens ties of the Department with the well established and successful Melbourne Vascular Audit.

Dr John Quinn as Executive Director of Surgical Affairs of the Royal Australasian College of Surgeons continues his interest in Workforce Assessment and the rearrangement of the Surgical Training Programs.

Dr Peter Woodruff as President of the Australian New Zealand Society of Vascular Surgery, member of the Medical Board of Queensland and Clinical Consultant to the newly formed Health Quality & Complaints Commission is involved in the preparation and assessment of numerous submissions and reports.

### Current Research Activities

#### Clinical Trials

- **ICSS** – International Carotid Stenting versus Surgery.

- **STRATIFY** – Study of Risk Assessment to Reduce Cardiac Events in Patients following Major surgery. (Professor Tom Marwick).

- **ASPIRE** – Aspirin to Prevent Recurrent venous Thromboembolism.
Publications


Arab HA, Cheung K, Hickman PE, Potter JM, Kadkjodae M, Roberts MS. 2006. Effects of hypoxia/reperfusion injury on drug disposition in the isolated perfused rat liver. CEPP 34: 332-338.


Frazer IH. 2006. Developing papillomavirus vaccines when and where they are most needed. Human Vaccines 2: 277-229.


Gandhi MK, Khanna R. 2006. EBV and CLL: innocent until proven guilty. Leukemia and Lymphoma., 47(6); 779-780.


Keane C, Gibbs S, Seymour JF, Mills AK, Grimmett K, Kuilenberg RV, Saal R, Gill D, Prince HM, Martin P, Mollee P. 2006. The Hyper-CVAD chemotherapy regimen has an adverse long-term impact on the ability to mobilize peripheral
blood stem cells, which can be readily circumvented by using the early cycles for mobilization. Hematol Oncol. Jun 15;24(3):159-163.


Kostner K. 2006. What clinicians should know about Lp(a): When do we need to measure it? What options do we have to lower it? Virtual Medical Centre - Pulse News - Quarterly Publication. April.


Lane SW, Crawford J, Kenealy M, Cull G, Seymour JF, Prince HM, Marpton P, Gill D, Mollee PN. 2006. Safety and efficacy of pegfilgrastim compared to granulocyte colony stimulating factor (G-CSF) supporting a dose-intensive, rapidly cycling anti-metabolite containing chemotherapy regimen (Hyper-CVAD) for lymphoid malignancy. Leuk Lymphoma. Sep;47(9):1813-1817.


Purcell R, Kruger PS. 2006. Indocyanine green elimination as a measure of liver function: how does the LiMon compare to conventional methods. Australian and New Zealand Journal of surgery; 76:75-77.


Centres for Health Research Annual Review 2006


Shulman RM, Geraghty TJ, Tadros M. 2006. A case of unusual substance abuse causing myeloneuropathy. Spinal Cord, Advance online publication, 8 August; doi:10.1038/sj.sc.3101962


Wong CY, Byrne NM, O’Moore-Sullivan T, Hills AP, Prins JB, Marwick TH. 2006. Effect of weight loss due to lifestyle intervention on subclinical cardiovascular dysfunction in obesity (body mass index > 30 kg/m(2)). American Journal of Cardiology 98: 1593-1598.


Centres for Health Research Annual Review 2006

Book Chapters


Fleming JM, Ownsworth T. 2006. Educational partnerships with clients who have cognitive impairment. In K McKenna & L Tooth (Eds.), Client education: A practical guide for clinical therapists (pp. 246-269). Sydney: The University of New South Wales Press Ltd.


Marwick TH. Stress echocardiography. IN Nihoyiannopoulos, Kisslo; Clinical Echocardiography. Springer, 2007 (in press)


Abstracts


Bartmess K BM, Baglin T, Marwick TH. 2006. Calculation of pulmonary vascular resistance reclassifies patients identified as having pulmonary hypertension in routine echocardiography. JACC 47: 134A.


Dangerfield DC, Samaratunga H, Yaxley J. 2006. Positive margin rates in patients with a single positive core on extended TRUS biopsy. BJU Int; 97(s1):2

Dressel U, Poh A, Thomas G, Baker S, Eisman JA, Gardiner EM. 2006. SMYD1, a Histone Methyltransferase, is Expressed in Osteoblasts and Chondrocytes. Combined Meeting of the IOF and ANZBMS.


Faoagali J. 2006. Gram negative bacteria and antibiotic resistance. Australian Society for Microbiology (ASM) annual scientific meeting. Gold Coast, August.


Feenstra J, Rixon K, Huckins C. 2006. A randomised crossover trial of inhaled sesame oil (Nozoil) vs heated humidification vs placebo for the treatment of nasal congestion associated with CPAP. Sleep Biol Rhythms; 4(S1); A56.


non-diabetic females." International Congress of Obesity (ICO), Sydney, September.


Hourigan MJ, Gill DS, Johnson DW, Mollee PN. 2006. Immunosuppression can be safely ceased during chemotherapy for Post-Transplantation Lymphoproliferative Disorders (PTLD) in Renal Transplant Patients. 2006 Combined Annual Scientific Meeting of HSANZ, NZSBT and ASTH, Hobart, October 15-18.


Mai N, Marwick TH. 2006. Subclinical pulmonary vascular changes occur without pulmonary hypertension or right ventricular dysfunction in moderate to severe chronic obstructive pulmonary disease. Eur J Echo 7: S203.


Mollee P, Tate J, Dimski G, Gill D. ‘Falsely Low Serum Free Light Chain Concentration in Patients with Monoclonal Light Chain Diseases.’


Morey AL, Francis GD, Bilous M, on behalf of the 8 other contributing pathology laboratories. 2006. A detailed analysis of oestrogen and progesterone receptor vs HER-2 status in 200 breast carcinomas in Australia. European Society of Medical Oncology, Istanbul.


and microbiological features of infections caused by non-multiresistant MRSA, multiresistant MRSA and MSSA. 12th International Symposium on Staphylococci and Staphylococcal Infections, Maastricht, Holland, Sep, abstract P185.


Roberts MS. 2006. Intracellular Pharmacokinetic Modelling. PKUK, November 15-17, Sheffield, UK.

Roberts MS. 2006. Maximum Flux Concept to Predict Skin Penetration. 6th International Conference and Workshop on Cell Culture and in vitro Models for Drug Absorption and Delivery. March, Saarland University, Germany.


Roberts MS. 2006. The latest science (including safety) on nanotechnology and skin penetration. FDA public hearing on the science of nanomaterials. October 10, Washington DC, USA.


Wong C, Leano R, Marwick TH. 2006. Insulin resistance is a determinant of myocardial dysfunction in apparently healthy obese subjects. JACC 47: 55A.


Yamada M, Vesey D, Johnson DW, Gobe GC. 2006. Protective effect of Angelica sinensis on renal vascular endothelial cell damage induced by oxidative stress. Presented at the Australian and New Zealand Society of Nephrology Annual Scientific Meeting, Melbourne, August 14-19.


Booth S, Kendall M. The benefits and challenges of providing transitional rehabilitation services to people with spinal cord injury from regional, rural and remote locations. Australian Journal of Rural Health.


Brignell M, Wootton R, Gray L. The application of telemedicine in geriatric medicine. Age Ageing.


Burgess MI, Fang ZY, Marwick TH. Role of diastolic dyssynchrony in the delayed relaxation pattern of left ventricular filling. Journal of the American Society of Echocardiography.


Changa J, Bird R, Claguea A, Cartera A. Clinical utility of serum soluble transferrin receptor levels and comparison with bone marrow iron stores as an index for iron-deficient erythropoiesis in a heterogeneous group of patients. Pathology.


Francis G, Dimech M, Giles L, Hopkins A. Frequency and reliability of oestrogen receptor, progesterone receptor and HER2 in breast carcinoma determined by immunohistochemistry in Australasia: Results of the RCPA Quality Assurance Program.


Hawley CM, Kearsley J, Campbell SB, Mudge DW, Isbel NM, Johnson DW, Reiger K, Preston J, Griffin A, Wall D, Burke J, McTaggart S, Frohloff G, Nicol DL. Estimated donor glomerular filtration rate is the most important donor characteristic predicting graft function in recipients of kidneys from live donors. Transplantation International.


Jenkins C, Bricknell K, Chan J, Hanekom J, Marwick TH. Comparison of two- and three-dimensional echocardiography with sequential magnetic resonance imaging for evaluating left ventricular volume and ejection fraction over time in patients with healed myocardial infarction. Am J Cardiol.


Johnson DW. IV versus oral iron supplementation in PD patients. Peritoneal Dialysis International.


Johnson DW. What is the optimal fat mass in PD patients? Peritoneal Dialysis International.


Lee R, Marwick TH. Assessment of subclinical left ventricular dysfunction in asymptomatic mitral regurgitation. Eur J Echo.


McIntyre HD, Knight B. Structured Patient Education such as DAFNE and Insulin Pump Therapy in Type 1 Diabetes – Compatible or Competitors? Infosystems Asia.


Mudawi TO, Kaye GC. Implantable cardiac devices past, present and future. Br J Cardiology.


Ngo DT HT, Mishra K, Marwick TH, Horowitz JD. Aortic stenosis is associated with elevated plasma levels of asymmetric dimethylarginine (ADMA). Nitric Oxide.


Saad N. Tracheal bronchus; misdiagnosed as tuberculosis. Australasian Radiology.


Smart N, Haluska B, Jeffriess L, Marwick TH. Exercise training in systolic and diastolic dysfunction: Effects on cardiac function, functional capacity and quality of life. Am Heart J.


Tang H. Diagnostic greed: using pictures to highlight diagnostic errors. Postgrad Med J.

Taylor PJ. Internal standard selection for immunosuppressant drugs measured by HPLC-tandem mass spectrometry [Letter]. Therapeutic Drug Monitoring.


Thomas L, McKay T, Byth K, Marwick TH. Abnormalities of left atrial function after cardioversion: an atrial strain rate study. Heart.


Vela I, Gregory L, Gardiner EM, Clements JA, Nicol DL. Bone and prostate cancer cell interactions in metastatic prostate cancer. BJU Int.


Vesey DA, Hooper JD, Gobe GC, Johnson DW. Potential physiological and pathophysiological roles for Protease-Activated Receptor-2 in the kidney. Nephrology.


Vivanti A, Banks M. Hospital patients are admitted for far longer than hospital averages indicate – implications for patient services. Australian Health Review.


Abbreviations

ALLG  Australasian Leukaemia and Lymphoma Group
ABI   Acquired Brain Injury
AGITG Australasian Gastro-Intestinal Trials Group
AHMAC Australian Health Ministers Advisory Council
AIBN  Australian Institute for Bioengineering and Nanotechnology (University of Queensland)
AKT  Australasian Kidney Trials Network
ALL   Acute lymphocytic leukemia
AML   Acute Myeloid Leukaemia
ANF   Australian Nurses Federation
ANZCA Australian and New Zealand College of Anaesthetists
ARC   Australian Research Council
ARHR  Australian Rotary Health Research
ARTHFA Arthritis Foundation Australia
AUGM  Academic Unit in Geriatric Medicine
BIRU  Brain Injury Rehabilitation Unit
CCA   Cancer Council Australia
CCIA  Children’s Cancer Institute Australia
CCL   Chronic Lymphocytic Leukaemia
CCN   College of Clinical Nephrologists
CCRE  Centre of Clinical Research Excellence (in Cardiovascular Disease and Metabolic Disorders)
CDER  Centre for Diabetes and Endocrine Research
CICR  Centre for Immunology and Cancer Research
CKDR  Centre for Kidney Disease Research
COAWG Care of Older Australians Working Group
CONROD Centre of National Research on Disability and Rehabilitation Medicine
CRIUSA Cancer Research Institute USA
CSIRO Commonwealth Scientific and Industrial Research Organisation
DART  Diabetes Australia Research Trust
DoHA  Department of Health & Ageing
DVA   Department of Veteran’s Affairs
ENT   Ear, Nose and Throat
EBMRF Epidermolysis Bullosa Medical Research Foundation
FIPC  Falls Injury Prevention Committee
GARU  Geriatric and Rehabilitation Unit
GCF   Golden Casket Foundation
GOSH  Geriatric Outcomes Study in Hospital.
GPRWMF Garnett Passe and Rodney Williams Memorial Foundation
GU    Griffith University
JDRF  Juvenile Diabetes Research Foundation
LFA   Leukaemia Foundation Australia
NHF   National Heart Foundation
NHMISC New Hampshire Miscellaneous Sponsor
NHMRC National Health and Medical Research Council
NICS  National Institute of Clinical Studies
PAH   Princess Alexandra Hospital
PAH CCG Princess Alexandra Hospital Cancer Collaborative Group
PAH CSEU Princess Alexandra Hospital Clinical Services Evaluation Unit
PAH HSD Princess Alexandra Hospital Health Service District
PAHHU Princess Alexandra Hospital Hypertension Unit
PTLD  Post-transplant lymphoproliferative disease
QCFN  Queensland Cancer Fund Network
QH    Queensland Health
QHPS SERTF Queensland Health Pathology Service Study, Education and Research Trust Fund
QHPS  Queensland Health Pathology Service
QIMR  Queensland Institute for Medical Research
QUT   Queensland University of Technology
RACP  Royal Australasian College of Physicians
RACS  Royal Australasian College of Surgeons
RANZCR Royal Australian and New Zealand College of Radiologists
SCI   Spinal Cord Injury
STEPS Steps to Enable People and Communities
UQ    University of Queensland
WEHI  Walter and Eliza Hall Institute of Medical Research
WELLAU Wellcome Trust Australia
The PA Foundation has funded cutting-edge research on the Princess Alexandra Hospital campus since 1988.

We fund grants for established or new researchers, new appointees, nurses and allied health workers.

The level of research funded is entirely dependent upon the level of philanthropic funds raised. The more money we raise, the more research we fund.

So please keep us in mind for all fundraising activities.

Every donation makes a difference – right here at home.

For further information on grants and fundraising activities visit www.pafoundation.org.au