Translating science into better health

T1 – Translation to first in humans
Findings from basic research are tested for clinical effect and/or applicability. T1 research yields knowledge about human physiology and the potential for intervention.

T2 – Translation to patients (refer page 15)
T3 – Translation to clinical practice (refer page 19)
T4 – Translation to population health (refer page 125)
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Welcome to the 2012 Princess Alexandra Hospital (PAH) Centres for Health Research Annual Research Report, highlighting another year of achievement and significant progress in our mission to translate advances in research into real benefits for patients locally and around the world.

Service Profile
Metro South Health is the major provider of public health services, and health education and research, in the Brisbane south side, Logan, Redland and Scenic Rim regions. The health service is made up of five major hospitals including Princess Alexandra Hospital, in addition to a number of health centres throughout the region.

Under federal and state government health reforms, Metro South Health became one of 17 new hospital and health services on 1 July 2012. Metro South Health is overseen by the Metro South Hospital and Health Board Chaired by Mr Terry White AO, with responsibility for setting strategic direction, establishing goals and objectives for executive management, monitoring the organisation in line with current government health policies and directives, and ensuring that adequate and appropriate community consultation is undertaken.

In October 2012 the creation of seven new clinical streams (in addition to the existing Mental Health stream) was announced, to improve the integration of services across the health service through innovation and clinical redesign. The clinical streams will be introduced in January 2013, while two academic streams: Research, and Education and Development, will be introduced in the near future.

Education and Research
In accordance with the Queensland Health Clinical Services Capability Framework endorsed in September 2012 by the Chief Health Officer and Director-General, research, teaching and education is undertaken to provide current evidence-informed care.

Metro South Health is committed to strong undergraduate and postgraduate teaching programs in medicine, nursing and allied health with linkages to The University of Queensland, Queensland University of Technology, and Griffith University, as well as several other Queensland universities.

Translational Research Institute
Metro South Health is internationally recognised as a leader in biomedical and clinical research. In 2012, PAH campus became home to the new Translational Research Institute (TRI), a world class medical research facility housing over 700 researchers from four of the country’s pinnacle institutions: PAH, The University of Queensland (UQ), the Queensland University of Technology (QUT) and the Mater Medical Research Institute (MMRI). The TRI allows – for the first time in Australia – biopharmaceutical and treatments to be discovered, produced, clinically tested and manufactured in one location. Researchers began occupying the TRI in late 2012. The TRI Clinical Research Facility is expected to open on Levels 4 and 5 of PAH R-Wing in late 2013.
Diamantina Health Partners
Diamantina Health Partners (DHP), launched in July 2011 as Queensland’s first academic health science centre unites eight of the state’s leading hospitals and universities to improve care for patients. DHP aims to position itself to take advantage of future funding opportunities through the demonstration of innovative thinking and productive collaborative arrangements which deliver on the tripartite mission of excellence in patient care, training and research. DHP’s vision is to be recognised internationally as a premier academic health science centre achieving innovative healthcare through academic leadership.

Awards
Of special mention are the staff from across the Health Service who were acknowledged through a number of awards in 2012:

- **Queensland Health Australia Day Achievement Awards**
  - PAH members of the Australian Medical Assistance Team (AusMAT), including Dr Daryl Wall, Sarah Weber, Ruth Jebb, Erin O’Connor, Nathan Costin and Michelle Cutlack, for their outstanding performance and achievement in the coordination of health services, supporting communities affected by the Christchurch earthquake
  - The Fractured Neck of Femur Team, including Dr Cameron Cooke, Professor David Theile, Dr Mark Dekkers, Dr Doug King, Leith Watkins, Kate Lowings, Genni Lynch, Schonneal Gosson, Dr Paul Varghese and Dr Peter Moran, for excellence in the care of the elderly fractured neck of femur patients and improvement in treatment outcomes
  - Donna Pottinger, for excellence in the development of systems to facilitate improved accountability and appropriate access to information
  - Professor Stephen Lynch, for coordinating leadership of surgical care across Metro South Health as well as personal clinical excellence in transplant surgery

- **National Australia Day Honours**
  - Associate Professor Brian Miller became a Member in the General Division (AM) for his services to medicine as a general and colorectal surgeon, to trauma education, as a mentor, and through contributions to improved surgical techniques

- **Christchurch Earthquake Award**
  - Awarded by Christchurch City Council to the Australian Medical Assistance Team Queensland (AusMAT-QLD)

Centres for Health Research
The PAH Centres for Health Research is a vital part of the commitment of the hospital to strengthen and facilitate the integration of research and teaching with clinical care. 2013 promises to be an exciting year ahead for research on the PAH campus, marked by a move of the CHR to new offices in the Translational Research Institute (TRI) building and the inaugural annual forum of the Diamantina Health Partners (DHP).

Dr Richard Ashby
Chief Executive, Metro South Health
AM, MBBS (Qld), BHA (NSW), FRACGP, FRACMA, FACEM, FIFEM

Dr Jennifer King
Executive Director, PAH-Queen Elizabeth II Health Network
MBBS, MBA, FRACMA, FAICD
Message from the Chair and the Director, Centres for Health Research

In this fifteenth annual report of the Centres for Health Research (CHR) you will find highlights of the many outstanding achievements of the staff and students of more than 50 groups who participated in research activities across the campus. In an exciting time of academic growth and health care development, researchers on the PAH campus are at the forefront of shaping the future of health care in Queensland, nationally and internationally.

Over $33.5 million of competitive peer reviewed grant funding was received in 2012 by researchers across the PAH campus, as set out in the Group Reports and Major Grants sections. Peer reviewed publications, vital for research to be translated into improved health outcomes for our community, increased on a background of strong productivity, with nearly 800 peer reviewed journal articles and books chapters. There were over 170 postgraduate students on campus from affiliated and collaborating universities.

Research Partnerships

The new Translational Research Institute (TRI) opened for occupancy on the PAH campus in late 2012. The TRI brings together The University of Queensland (UQ) Diamantina Institute, Mater Research, the Queensland University of Technology (QUT) Institute of Health and Biomedical Innovation, Princess Alexandra Hospital and UQ Faculty of Health Sciences, in a partnership which aims to accelerate and translate medical research into improved patient outcomes. TRI expansion will provide accommodation for human research within its Clinical Research Facility, which is expected to open on Levels 4 and 5 of PAH R-Wing in late 2013.

Diamantina Health Partners (DHP), launched in 2011 and chaired by Professor David Theile AO, is positioned to deliver on the Academic Health Sciences Centre model of excellence in patient care, training and research. The first of its kind in Queensland, the DHP aims to improve the health of our population by taking the discoveries made in biomedical research labs and translating them to patient care. The PAH campus is poised to leverage the opportunities that will flow from both the TRI and DHP.

Other significant research partnerships announced in 2012:

- A new cutting-edge research facility to open in the TRI, the Head and Neck Cancer Centre, was announced by the TRI CEO and Director of Research, Professor Ian Frazer. The centre is the vision of chief investigator and respected PAH head and neck surgeon, Professor William Coman, to better understand, prevent, diagnose and treat head and neck cancer in Australia. Scientific research in the TRI and the Queensland Institute of Medical Research (QIMR) will intensify the Centre’s linkage to the clinical scene at PAH, building on the already established teaching and research strengths.

- QUT researchers continued their involvement at PAH in the four broad research areas of addiction, trauma, prostate cancer, and nursing practice research, with the Australian Prostate Cancer Research Centre – Queensland (APCRC-Q) receiving over $5 million in grant funding to better predict, characterise and treat aggressive prostate cancer, and to improve the lives of men living with prostate cancer, as well as their partners, families and carers.
• The PA Telehealth Centre was officially launched at the PAH in a collaboration with the Centre for Online Health (COH), Queensland Health, and the Commonwealth Government. In a partnership with the COH and Uniquest, the Centre for Research in Geriatric Medicine developed the “RES-e-CARE” commercial enterprise to deliver specialist care to aged care homes through telehealth.

• UQ Diamantina Institute researchers received several prestigious awards in 2012 including Australian Cancer Research Funding for a new Individualised Oncology Care Centre located on the PAH campus and partnering with PAH clinicians and UQ clinician researchers to translate scientific discoveries into technologies that will advance the fight against cancer.

• The UQ Dermatology Research Centre saw the Teledermatology Service incorporated into standard clinical practise at the PAH. The greatest utilisation is by doctors practising in rural centres which lack access to onsite dermatology consultations.

Facilitating Research
The PA Research Support Scheme, jointly funded by the Princess Alexandra Research Foundation (PARF) and the PAH Private Practice Trust Fund (PPTF), awarded over $1.6 million to 21 successful applicants. The Infrastructure Support Program, funded by the PPTF, awarded 13 grants totalling $110,000 to PAH chief investigators who had successful NHMRC Project grant application for funding during 2012. We express our gratitude to the PARF and PPTF, and congratulate all the successful applicants and wish them every success with their research.

Activities established under the aegis of the CHR include the Metro South Human Research Ethics Committee, the PA Research Committee, and the week-long annual PAH Health Symposium. We extend our appreciation to all those who help to facilitate research on the campus, through these and other activities, and particularly acknowledge the contributions of the staff of the PAH Centres for Health Research.

‘It is an exciting time of academic growth and health care development which will auger well for the PAH campus...’

Ms Areti Gavrilidis
Director, Research Development, Ethics & Policy Princess Alexandra Hospital, Metro South Health (RAO NHMRC)
MBA, Grad Dip Bus Admin, BSc, BAppSc, AFCHSE, Churchill Fellow

Professor Ken Ho
Chair, Princess Alexandra Hospital Centres for Health Research
FRACP, FRCP (UK), MD
Allied Health Practitioner Research

A success story building research culture and capacity in a clinical context

Allied health practitioners are celebrating a 15 year history of active research development at Princess Alexandra Hospital. Dr Jennifer Lethlean (Chairperson, Health Practitioner Research Collaborative) remembers, “It has been an amazing journey for me to have seen the significant growth of the allied health research agenda since a small group of us met in 1997 to develop aims and strategies to coordinate, resource and profile allied health research activities. With the support of forward-thinking directors, productive relationships with universities and excellent clinical researchers the Centre for Functioning and Health Research and other collaborations have formed epitomising the dream many of us had all those years ago”.

Associate Professor Jennifer Fleming, an occupational therapist with a long and successful research career at PAH, recalls that there has always been a strong focus on allied health research at PAH. She says, “Nowadays research evidence underpins clinical practice in allied health like never before, and as a group we are contributing in a significant way to producing that evidence.”

As the Executive Director of the Division of Clinical Support Services, Julie Connell has reflected on the journey: “I think what has been most pleasing is the considerable sacrifices the allied health departmental directors made initially to establish the conjoint positions and this has been justified by how successful the positions have been. They have been the catalyst for the exponential growth in allied health research activity on this campus.

“Those who have filled these roles have become leaders in clinical research and include Professor Sandy Brauer, Associate Professor Terry Haines, Associate Professor Jenny Fleming, Dr Louise Cahill, Dr Petrea Cornwell, Dr Suzanne Kuys, Dr Steve McPhail, Dr Anna Hatton and Dr Emma Finch. Their influence has been instrumental in inspiring staff to complete research higher degrees and attracting post graduate students nationally and internationally.

“Dedicated research positions on campus have also led to the growth of evidence based practice and the translation of evidence into practice at the clinical coalface. The successful relationship we have had with The University of Queensland School of Health and Rehabilitation Science in our conjoint positions was a significant enabler for us to obtain not only the funding from Department of Health but also funds from three universities to establish the Centre for Functioning and Health Research and the first allied health professorial research position on this campus. These additional conjoint positions with The University of Queensland, Griffith University and Queensland University of Technology, along with a number of other dedicated research positions and our clinical research fellows, have strengthened our leadership in allied health research nationally and internationally. I have been really pleased with the achievements of all our research staff over the past 15 years and now with the Diamantina Health Partnerships and the Translational Research Institute here on the PAH campus who knows where the next 15 years will take us.”

Showcase examples of translational research outcomes 1997-2012

- New evidence-based Allied Health services in the Emergency Department, Medical Assessment and Planning Unit and Radiation Oncology have optimised therapy outcomes, reduced hospital admissions and length of stay.
- Falls prevention and novel mobility intervention programs established.
- Improved nutritional and quality of life outcomes and allied health treatment options in chronic disease, renal disease and cancer care.
• Excellence in acquired brain injury and spinal injury rehabilitation – optimised use of technology, tele-rehabilitation, transitions from hospital to home, communication, swallowing, mobility and life-participation outcomes, community interventions, psychosocial support, models of care, and self-directed management.

• Evidence-based Allied Health aged-care assessment and management.

2012 Health Practitioner Research Collaborative – Metro South

Health practitioners provide diagnostic, rehabilitative and clinical support to hospitals and the community through specialised services. The purpose of the Health Practitioner Research Collaborative is to lead, develop and support relevant multi-disciplinary research and its application into practice across the continuum of care which is recognised at state, national and international levels. Priorities this year have optimised research communication and focused on supporting and training our researchers.

The Centre for Functioning and Health Research “one stop shop” website has been a valuable source of up to date research resources and links to the new state-wide Evidence Based Practice repository. Researchers can request help and access resources and workshops about ethics, publishing research writing and pursuing a PhD. A research translation session saw guest speakers from UQ and Griffith University, as well as library staff, share editorial experiences of publishing in open access journals and the use of podcasts to improve access to research results.

Allied Health research productivity across Metro South increased once again in 2012. Details of successful funding bids, peer-reviewed publications and post-graduate research programmes can be found in departmental and area reports. Translational research endeavours will continue to flourish with the ongoing investment in dedicated health practitioner research positions and fellowships, research capacity building of clinicians, and fostering of partnerships with other healthcare researchers including the developing Diamantina Health Partner agenda.

Ms Julie Connell
Executive Director, Clinical Support Services

Dr Jennifer Lethlean
Chairperson, Health Practitioner Research Collaborative

Ms Sue Pager
Research Workforce Development Officer, Metro South
The TRI, sited adjacent to the PA-Southside Clinical School, will bring together our laboratory-based research in outstanding facilities and integrate closely with our School’s clinical research and teaching activity across the Princess Alexandra Hospital, and with the School of Pharmacy at PACE, and Queensland’s most well developed Academic Health Sciences Centre, the Diamantina Health Partners. This clinical expertise, across every clinical specialty, can identify clinical questions that need to be addressed, translate the findings of research as directly as possible into clinical practice, and engage our medical students in research thinking, current endeavours and improved health outcomes. As 2012 ended, a review of the Faculty of Health Sciences’ Clinical Schools recommended the creation of new positions of Associate Dean (Clinical) in the Faculty of Health Sciences, and two Heads of Clusters of the South-western and Northern clinical schools. It is anticipated that these senior clinical academic leadership roles, alongside our Heads of each Clinical School, will strengthen the engagement with our teaching hospitals and research partners.

School of Medicine researchers, staff and medical students watched keenly as the Translational Research Institute (TRI) emerged from its scaffolding through 2012, and looked forward to a relocation to the new building during January 2013. This world-class institute is a collaborative and integrated organisation to develop and support healthcare improvements, spanning high quality basic to clinical and translatable research. The School of Medicine makes up a sector of the TRI faculty, the TRI Caucus, whose inaugural leader was a School of Medicine clinical academic.

Our strength and international profile in both laboratory- and clinically-based research in a variety of clinical areas is an attractive factor for the 600 individual medical students, across the MBBS program, who undertake placements at the PA-Southside Clinical School each year, and who will potentially return to research-rich clinical practice at the Princess Alexandra Hospital once they graduate. Our research strengths include internal medicine, geriatric medicine and dermatology, oncology, renal, hepatic and cardiovascular medicine, gastroenterology, lung and allergy, clinical pharmacology, therapeutics and quality use of medicines, diabetes, hypertension, obesity and endocrinology.

Of particular note, the Dermatology Research Centre was awarded an ARC project grant in late 2012, indicative of the bench to clinic scope of DRC’s research, and the Centre’s findings of earlier research has translated into teledermatology services being incorporated into standard clinical practice at PAH, benefitting doctors and patients in rural centres who lack access to onsite dermatology consultations.
The Centre for Research in Geriatric Medicine also continues its growth with the conclusion of projects with outcomes that will translate to health care practice, securing NHMRC Project and NHMRC Partnership Centre funding, and along with the Centre for Online Health at Herston and the Telerehabilitation Research Unit at St Lucia secured funds to operate demonstrations in telehealth care delivery in residential aged care facilities and in older people’s homes.

In 2012, School of Medicine researchers were awarded over $20 million in new research grants, with over $5.5 million of this awarded at PAH and nearly $6 million in new NHMRC project and people support grants announced to commence in 2013 at the PA-Southside Clinical School. Our PA-Southside Clinical School researchers supervised over 50 PhD and Masters students in 2012 and published over 300 peer reviewed research papers. Our research groups, in collaboration with the PA Hospital clinicians, have reported successful recruitment and progress of clinical trials and research projects underway and we refer you to the individual research reports for more achievements from our research groups.

Professor Darrell Crawford  
Head School of Medicine (Acting)

Associate Professor Jenny Martin  
Head PA-Southside Clinical School

Professor Geoffrey Cleghorn  
Director of Research, School of Medicine
Queensland University of Technology at the Princess Alexandra Hospital

The Queensland University of Technology’s Institute of Health and Biomedical Innovation (IHBI) and the Princess Alexandra Hospital continued their strong partnership in 2012. Together they deliver high-impact research that addresses real world health problems to benefit patients and the community.

At the Princess Alexandra Hospital, QUT researchers are involved in four broad research areas of addiction, trauma, prostate cancer, and nursing practice research. The research outcomes from their respective research groups, Alcohol and Drug Assessment Unit, Trauma Research Group, Australian Prostate Cancer Research Centre – Queensland (APCRC-Q), and the Cancer Nursing Research Group are detailed separately in the Group Reports section of this document. During 2012, addiction, trauma and nursing researchers from IHBI based at the PAH produced 37 publications and thirty-one IHBI postgraduate students conducted their studies on the PAH campus.

2012 was an exciting year for IHBI researchers partnered with PAH with the culmination of the long awaited move into their new purpose built research facility, the Translational Research Facility (TRI). Four years and $350 million in planning and building, the TRI was ready to welcome approximately 100 of IHBI’s researchers. TRI compliments IHBI’s core philosophy, which is to translate research from bench to bedside through collaborative and multidisciplinary research. The TRI environment encourages such links within its walls with the four key partners: QUT, University of Queensland’s Diamantina Institute, Mater Medical Research Institute, and the Princess Alexandra Hospital’s Centres for Health Research, as well as with the broader scientific community.

Addiction
Professor Ross Young, Professor David Kavanagh, Associate Professor Karen Sullivan and Dr Fred Thorberg at IHBI continued their collaborative work in 2012 with Dr Gerald Feeney and Associate Professor Jason Connor at the PAH Alcohol and Drug Assessment Unit in:

- Developing clinical assessment tools for cannabis dependence
- The measurement and treatment of alcohol craving
- Expanding the dopamine related genetic work to examine the combined risk of multiple polymorphisms in alcohol dependence
- Understanding the role of emotion processing and remotion in patients with problem drinking.

The outcomes of the PAH Alcohol and Drug Assessment Unit are fully covered separately in this report.

Trauma
The Trauma Research Group, headed by orthopaedic and trauma surgeon Professor Michael Schuetz, Chair of Trauma at IHBI and Director of Trauma at the PAH, includes engineers and computer scientists, working with surgeons, and emergency specialists at the PAH. The Trauma Research Group brings together this multidisciplinary team to tackle emerging issues in relation to the management of orthopaedic trauma and improves community capacity to respond to trauma.

The Trauma Research Group received six grants in 2012:

- Trauma recovery
- Assessment and reconstruction of bone defects
- Improving outcomes for pre-hospital spinal trauma management in Australia
- Accelerating bone healing
- The potential use of stem cells in bone tissue engineering.
Nursing Practice
QUT and the PAH are collaborating on numerous nursing-specific research projects. The Cancer Nursing Research Group is led by Associate Professor Alexandra McCarthy, who holds a formal joint appointment between Cancer Services Southern and the School of Nursing, Queensland University of Technology. Professor Patsy Yates from the School of Nursing, QUT, is formally appointed Visiting Fellow to Cancer Services Southern. The collaboration incorporates a variety of projects examining key health issues including:

- Development of a tool to measure nurse sensitive indicators in the oncology setting
- Scoping the prevalence and determinants of cardiotoxicities following cancer treatments
- Implementing a behavioral intervention for managing women’s wellness after breast cancer
- Development, implementation and evaluation of nursing guidelines for the management of fever in adult cancer patients
- Developing a self-management program to assist with fatigue in patients with advanced cancer
- Standardised process of pre-screening and comprehensive assessment of the older cancer patients
- Evaluating novel methods for delivering non-pharmacological intervention for cancer patients
- Validating a novel, low cost, automated malnutrition screening system as a predictor of nutritional risk in the Oncology Day Care Unit.

In 2012, the group’s research activities progressed toward clinical application and service delivery. A project led by Professor Alexandra McCarthy, and funded by the PA Foundation, investigated the feasibility and efficacy of ‘frozen glove’ therapy to prevent the hand and nail toxicities that can result from the administration of a chemotherapy drug. Recruitment and data collection of the main study was completed in December 2012. A second project also led by Professor McCarthy investigated whether a computerised, nurse-administered assessment of older cancer patients could determine fitness for chemotherapy. Data collection was completed in March 2012. A model of service delivery for older cancer patients will be developed from the data.

Prostate Cancer
The Australian Prostate Cancer Research Centre – Queensland (APCRC-Q), led by the Chair of Prostate Cancer at IHBI, QUT, Professor Colleen Nelson, and QUT’s Cancer Program Leader, Professor Judith Clements, develops new therapeutics and predictive biomarkers with the aim of preventing prostate cancer. The transdisciplinary team involves geneticists, protein chemists, urologists, oncologists and clinical pharmacologist’s whose research is facilitated through local, national and international collaborations. APCRC-Q focuses on therapeutic target development and biomarkers for genetic predisposition, early detection and prognosis, and to characterize the molecular mechanisms underlying disease progression. The research is carried out with a translational approach to inform and drive improved clinical practice. Examples of projects carried out in 2012 include:

- Clinical trial of anti-cancer drugs in the inhibition of prostate cancer progression
- International collaboration with the PRACTICAL Genome Wide Association Study (GWAS) Consortium
- assessing the role of novel single nucleotide polymorphisms in prostate cancer
- Testing the effect of natural anti-cancer compounds on prostate cancer
- Stem cell therapy to treat prostate cancer.

Professor Ross Young
Executive Dean, Faculty of Health
Queensland University of Technology

‘TRI compliments IHBI’s core philosophy, which is to translate research from bench to bedside...’
Postgraduate Research

Princess Alexandra Hospital staff supervised at least 163 students undertaking research higher degrees in 2012, including nine new PhD students, 11 new Master students, and 116 continuing PhD (86) and Master (30) students.

Carolyn van Eps

Morbidity and mortality rates in end stage kidney disease patients remain high. The majority of excess mortality is cardiovascular and infectious in aetiology. Interest has emerged in increasing haemodialysis dose, using more frequent and/or longer duration treatments to improve outcomes. Currently, there is insufficient evidence defining the strengths and weaknesses of different haemodialysis regimens. Alternate daily haemodialysis may offer advantages over daily haemodialysis, including reduced costs, fewer vascular access cannulations and less intrusion on patients’ lifestyles.

Carolyn’s thesis concluded that alternate nightly NHD is a safe and sustainable therapy for end stage kidney disease, which can improve bone mineral metabolism, quality of life and fitness when compared to CHD. In contrast to the cardiovascular benefits reported in previous studies of quotidain haemodialysis regimens, no improvements in cardiovascular structure and function or hospitalization rates were observed following conversion to NHD in this study. Moreover, the risk of dialysis access infectious complications appeared to be increased, particularly when the buttonhole cannulation technique was used in conjunction with extended-hours haemodialysis. This study highlights important differences in outcomes achieved with various haemodialysis regimens. Interdialytic weight gains may remain higher with alternate daily, extended hours, haemodialysis regimens when compared with daily haemodialysis regimens. High interdialytic weight gains may remain a source of ongoing cardiovascular stress and may counteract the effects of improved control of other uraemic toxins.

Ryan Adams

Head and neck squamous cell carcinoma (HNSCC) is the fifth most common cancer world-wide with an unchanged 50 percent five-year survival rate over the past 30 years. Novel approaches to this disease burden has shifted toward molecular targeted therapies aimed at inducing cancer cell senescence and host immune system activation to promote regression and clearance of malignant cells.

The aim of Ryan’s MPhil research, taking place across the PAH Department of Otolaryngology - Head and Neck Surgery and QIMR, was to explore the efficacy of EBC-46 in two human HNSCC cell lines in a mouse model whilst also probing into the understanding of its mechanism of action both in-vitro and in-vivo. The study has shown that EBC-46 has the potential to ablate human HNSCC in a murine model without evidence of recurrence. In-vitro investigations, however, revealed that the cytotoxic capacity of the compound does not match that seen in-vivo. These data suggest that EBC-46 is more efficacious in-vivo than in-vitro, indicating a co-dependent mechanism of action involving both primary necrosis by way of cell senescence and a significant host response culminating in tumour clearance. The confirmation of PKC activation by EBC-46 was provided by western blot analysis in culture and the downstream effects on the tumour microenvironment were followed by cytokine flow cytometry and histopathology verifying the stimulation of an innate immune response. The research confirms that the intra-tumoral delivery of EBC-46 into human HNSCC xenografts slows tumour growth leading to tumour ablation, a result achieved through the activation of PKC isoforms and the stimulation of a local immune response.
Sam Hames

Sam has a background in mechanical engineering, with previous work in ultrasonic damage detection and signal processing. His interest in image processing led him to the Dermatology Research Centre at UQ, where he is undertaking a PhD in medical image analysis, supervised by Dr Tarl Prow, Prof H Peter Soyer and Prof Gregor Jemec (University of Copenhagen).

His work focuses on automatic and objective characterisation of actinic keratosis (sun spots), one of the most common skin conditions in Australia and an important precursor for non-melanoma skin cancer. He has shown that automated assessment of clinical photos can detect actinic keratosis similarly to an experienced dermatologist, paving the way for extending specialised knowledge to the broader medical community through computational approaches.

Adrian Cortes

PhD student Adrian Cortes completed his Bachelor of Science and Master of Science at The University of British Columbia in mathematics and bioinformatics, respectively. With his interests in genomics and immunology he was naturally attracted to the research of Professor Matthew Brown, Director of UQ Diamantina Institute. The interdisciplinary approach taken by the UQDI group to crack one disease – which literally goes from the clinic, past the wet and dry labs, back to the clinic – has been a formative journey for Adrian.

In the three years as a PhD student in the lab he has undertaken a few projects aiming to better understand the genetics of susceptibility of inflammatory diseases, in particular ankylosing spondylitis and multiple sclerosis. Adrian says, ‘I have been very lucky to work in a research group with access to large cohorts, cutting-edge technology and a talented team; which makes my work exciting and keeps me motivated’.

Emma McMahon

Emma McMahon is an accredited practising dietitian and PhD candidate through the PAH Nutrition and Dietetics Dept and UQ School of Human Movement Studies. She is in her final year of her doctorate exploring dietary sodium and cardiovascular risk in people with chronic kidney disease.

As part of her thesis, Emma conducted a Cochrane review titled ‘Altered Dietary Salt for Chronic Kidney Disease’ (in press), as well as three research trials. The main trial, the LowSALT CKD Study, comparing a high versus low salt intake in participants with moderate CKD, is complete and the preliminary results were presented at the World Congress of Nephrology 2013 where Emma was awarded the ‘Young Investigator Award’ for ‘Best Clinical Science from a Developed Country’. The study has been accepted by the ‘Journal of the American Society of Nephrology’. The second trial involved follow up of the LowSALT CKD Study and both are nominated for ‘Young Investigator Awards’.

A third study is a large cross-sectional trial measuring the relationship between salt intake and taste disturbance in CKD. Data collection is complete for this study and the results are currently been analysed.

Michael Neep

The outcomes of Michael’s PhD titled “Comparison of the effectiveness of two education delivery methods of an image interpretation program for radiographers” will inform the way critical image interpretation education is delivered to radiographers in Queensland, and more broadly. This will have particular significance for trauma settings where the optimum mode of education delivery will assist in maximising performance of radiographers and ultimately reduce risk and improve the quality of service for patients in this high volume, high risk environment. Improving the capabilities of radiographers in this setting is likely to minimise risk of missed or incorrect diagnosis due to delay in diagnostic reports.

Michael’s research will ultimately involve a randomised clinical trial which will assess the comparative merits of two education delivery formats (intensive training versus regular tutorials over three months) of a series of Image Interpretation workshops as a tool for improving the ability of radiographers to detect and comment on, abnormalities visualised on trauma radiographs.
Mathivathana Indrajith

Quantifying the net benefit of early revascularisation strategy in ST elevation myocardial infarct (STEMI) patients by cardiac magnetic resonance imaging

Acute ST-Elevation Myocardial Infarction (STEMI) is a common serious life-threatening condition.

Early reperfusion is associated with improved outcomes in STEMI. PAH Cardiology Department and Queensland Ambulance Services adopted a new approach of pre-hospital notification and time dependent choice of either angioplasty or pre-hospital thrombolysis in 2010-2011.

Vath’s research will evaluate the new strategy against clinical endpoints and physiological outcomes and compare these with historical controls.

If pre-hospital notification is associated with better outcomes, the study will add to the literature of optimal clinical strategies to improve outcomes in STEMI patients.

Sandya Jalapu

Factors enhancing production of Brown Adipose Tissue (BAT) and its role in treatment of obesity

Obesity is an escalating problem of epidemic proportions in many countries, fuelling the development of diabetes, hypertension and heart disease.

In humans, the dogma that brown adipose tissue (BAT) disappears after infancy has recently been challenged. By employing molecular analysis and metabolic imaging, our laboratory has discovered that BAT is present in most if not all adult humans.

Sandya’s research is investigating the physiology of BAT in humans to determine factors which regulate BAT activity, and the metabolic significance of BAT.

BAT confers protection against obesity in animals and, based on its thermogenic properties, is likely to have a similar role in adult humans. Identification of factors that enhance BAT activity may lead to novel approaches for the treatment of obesity.

Clinical Research Fellowships
Committee Reports

T2 – Translation to patients
Knowledge from T1 studies is translated to patients. Testing new interventions under controlled environments to form the basis for clinical application and evidence-based guidelines. Moving new medical discoveries into clinical practice. T2 research yields knowledge about the efficacy of the interventions in optimal settings.
The Metro South Human Research Ethics Committee (MS HREC) reviews the ethical and scientific validity of proposed research protocols for compliance with endorsed national standards and guidelines across the Metro South Hospital and Health Service. This area encompasses Queen Elizabeth II Jubilee Hospital, Logan and Beaudesert Hospitals, Redland and Wynnum Hospital and Princess Alexandra Hospital, Inala Indigenous Health Service as well as a variety of Community, Oral and Mental Health Facilities.

The MS HREC is certified under the NHMRC National Certification Scheme of Institutional Processes related to the Ethical Review of Multi-Centre Research, in the categories of clinical trials I-IV, clinical interventional studies other than clinical trials, population and/or public health, qualitative, mental and paediatric research.

To fulfil its responsibility to adopt review processes that eliminate unnecessary duplication of ethical processes, the MS HREC participates in the National Approach to Single Ethical Review of Multi-centre Research between Queensland, New South Wales and Victoria. The MS HREC also participates in the Interstate Mutual Acceptance of ethics review for multi-site clinical trials between Queensland, NSW, Victoria and South Australia. These initiatives contributed to a 7% reduction, over the previous year, in research applications received by the Committee (286), and to a 13% reduction in the number of clinical trials reviewed (21).

Members of the Committee contributed to the public consultation on the "Using the National Statement: Ethical Review of Quality Improvement Activities in Health Services, to Chapter 3.4: Human biospecimens in the National Statement on Ethical Conduct in Human Research 2007" draft paper, and to the "Strategic Review of Health and Medical Research" consultation document 2012.

Associate Professor Richard Roylance, MS HREC Deputy Chair, was appointed as the Chair for the Metro South Low Risk Review Panel. Dedicated HREC members are rostered on this panel each month ensuring timely review of applications. Low Risk Research is identified as research in which the only foreseeable risk is one of discomfort as defined in the National Statement (2007) Chapter 2.1, including minor side effects of medication, discomforts related to measuring blood pressure or anxiety induced at an interview. Review of this type of research occurs out of session and the introduction of the Low Risk Review Panel has resulted in an improvement in time to HREC approval.

Training and development
Members of the Committee and the Ethics Secretariat participated in a number of professional development and education forums, including: Australian Ethics Network Conference 2012; presentation by Associate Professor Richard Roylance on ‘Low Risk Research’ in July; presentation by Pauline McGrath FHGSA MNLead, Genetic Counsellor from Genetic Health Queensland, on ‘Ethical Aspects of Human Genetics’ at the August Metro South HREC meeting; and presentation by Professor Maher Gandhi on ‘Ethics Matters’ during the PAH Research Symposium in August.

Ways to support the shared desire to further clinical understanding, while minimising risks to participants and preserving informed choice in the research process, were considered by Queensland Chairs, Governance and Ethics Secretariat forums, facilitated by the Queensland Office of Health and Medical Research.

MS HREC membership
2012 saw a successful recruitment drive that resulted in eight new Committee members: Dr Wendy Foley, Professor Rick Jackson, Dr Malcolm Smith, Ms Florence Spurling, Dr Paul Spurling, Ms Mabel Tsui, Associate Professor Gail Robinson, and Mr Kelly Perkins. The institution expresses its sincere appreciation to retiring members, Ms Meg Harward, Reverend Dr Mervyn Thomas and Mr Denzil Scrivens, for their contribution over the years.

The institution warmly welcomes the new members, and thanks all current members for their ongoing hard work and dedication, without which research could not be conducted within Metro South Health.
The Research Committee provides strategic advice to the PA Research Support Scheme, which is jointly supported by the PA Research Foundation and the Private Practice Trust Fund. This scheme provides funding to assist health service delivery professionals with the aim of improving patient health outcomes conduct their research on the PAH campus. In 2012, the PA Research Support Scheme awarded over $1.6 million to 21 applicants from three categories of funding: People Support ($741,000), Project Support ($495,000) and Research Excellence ($366,000). Successful applicants were from a range of departments including Occupational Therapy, Speech Pathology, Physiotherapy, Intensive Care Medicine, Nutrition and Dietetics, Cardiology, Gastroenterology and Hepatology, Pharmacology, and Endocrinology.

In 2012 the Committee made important strides in supporting the academic development and growth on the PAH campus. The Committee expanded its membership to include a Postdoctorate Fellow representative, and established Research Forums within the programs of the PAH Clinical Grand Rounds and the Centre of Clinical Research Excellence. A Biostatistics Subcommittee was established, which created and implemented a biostatistical survey. The survey identified the need for a biostatistical support service for PAH campus-based clinical research staff, which the Committee is taking steps towards establishing.

The Research Committee also provided input to the program theme, content and structure of the 2012 PA Health Symposium. Highlights of the week included the opening and plenary lectures provided by Mr Volker Richter, Vice President of BMW’s Research and Innovation Centre, and Professor Paul Stewart, Executive Director of Birmingham Health Partners. Mr Richter shared information on ’Streamlining an organisation to get on target in a competitive environment – the BMW experience’, while Prof Stewart spoke about ’Academic Health Science Centres and Networks: Lessons from the UK’.

The Research Committee is dedicated to servicing the needs of the PAH research community, and will continue its important role in providing guidance and advice to PAH executives, who are committed to enhancing research capacity, productivity and quality. In this way, it will be able to further broaden the scope and increase the level of research support provided to PAH-based researchers while developing strategies to raise the profile of research performed on the PAH campus. This will also assist in strengthening PAH associated research partnerships, productivity, and quality.

**PAH Research Committee Members 2012:**
- Professor Ken Ho, Chair
- Dr Nigel Brown
- Dr Katrina Campbell
- Dr Maree Ferguson
- Professor Maher Gandhi
- Ms Areti Gavrilidis
- Professor Len Gray
- Assoc Professor Carmel Hawley
- Professor Gerald Holtmann
- Ms Kerri Holzhauser
- Professor Michael Schuetz
- Assoc Professor Mark Smithers
- Professor Michael Stowasser
- Professor Euan Walpole
- Dr Bruce Wyse

The Princess Alexandra Hospital Research Committee aims to promote a strong culture of research collaboration and excellence among the clinical PAH community, with the purpose of improving healthcare. Its goals include providing education and training in research methods, ethics and governance, and promoting cross-disciplinary collaboration. The Committee has broad representation from active research groups within the PAH, clinical and non-clinical divisions of the PAH, the Metro South HREC, and the UQ School of Medicine, UQ Diamantina Institute, and Queensland University of Technology.
The PA Research Foundation is a statutory authority established in 1984 to raise funds for world-class health and medical research at the Princess Alexandra Hospital. The PA Research Foundation is managed by the CEO and an independent Board of Directors composed of local business leaders and the medical community.

The PA Research Foundation aims to support the significant health and medical research advances being made at the PAH. The recent opening of the Translational Research Institute (TRI) on the PAH campus has assisted in moving research performed by PAH-based scientists and clinical researchers to the forefront of health research in Queensland and the world. The PA Research Foundation is excited to continue promoting the PAH campus as a premier site for clinical research and an internationally acclaimed academic health research centre enhancing interdisciplinary collaborations between clinical researchers and basic scientists.

In 2012 the PA Research Foundation contributed $525,000 to the PA Research Support Scheme, a scheme administered by the Centres for Health Research. With the help of the PA Research Foundation, the CHR was able to award substantial research dollars to 21 outstanding applicants studying treatments for kidney disease, brain injury, cancer, arthritis, heart disease, hypertension, and liver disease.

I would like to thank all those who generously donated to the PA Research Foundation and in doing so invested in the future health and wellbeing of our families and communities.
Group Reports

T3 – Translation to clinical practice
Translating knowledge into actual clinical practice - once clinical applications have been demonstrated through the T2 translation, clinicians must find ways to move these findings into the daily care of patients. Translates results from T2 research into clinical practice. Researchers explore ways of applying recommendations or guidelines in general practice.
Acquired Brain Injury Outreach Service

The Acquired Brain Injury Outreach Service (ABIOS) is a specialist community based rehabilitation service that provides advice for clients, carers and/or workers that assist people with acquired brain injury. Along with the Brain Injury Rehabilitation Unit (BIRU), the BIRU Day Hospital, and the STEPS (Skills to Enable People and Communities) Program, ABIOS is encompassed within the Brain Injury Rehabilitation Service, Princess Alexandra Hospital Division of Rehabilitation.

During 2012, ABIOS continued its success in many research arenas. Work commenced to implement funded collaborative research projects with the Brain Injury Rehabilitation Unit and Griffith University looking at efficacy oriented care and family involvement in rehabilitation. The second pilot year commenced for the Department of Communities funded initiative exploring self-directed funding support for people with disability.

Work also continued on research in the areas of knowledge translation and consultancy within rehabilitation and aged care settings, models of rehabilitation for Aboriginal and Torres Strait Islander communities and transition from hospital to home following brain injury. New collaborative research was funded and commenced investigating psychosocial care following injury with a focus on identity reconstruction and exploration of the training needs of volunteer workforces to support the STEPS Program. New research was also conducted investigating the effectiveness of a memory skills program.

Ray Quinn
Manager

Research Activities

Evaluating the ‘Making the Most of your Memory’ group memory skills education program in acquired brain injury rehabilitation (Morgan, C, Goddard, K, Kendall M)

This project was developed and commenced during 2011, aiming to implement and evaluate an evidence-based memory skills program intervention in acquired brain injury rehabilitation. Data collection for the preliminary pilot of the project is complete with data analysis continuing.

Supporting the growth of peer-professional workforces in health care settings: an investigation of the training and support needs of volunteer leaders of the STEPS Program (Turner B, Kennedy A, Kendall M, Muenchberger H)

This project commenced in 2011 after being successfully funded to investigate the training needs of peer-professional volunteer workforces and evaluating training modalities to enhance capacity and sustainability of these workforces. Data analysis continued in 2012. One manuscript has been submitted for publication.

Improving community-based rehabilitation for Aboriginal and Torres Strait Islander Queenslanders with acquired brain injury (Gauld S, Smith S, Kendall M)

This is an ongoing project that aims to develop and evaluate models of service delivery in community-based rehabilitation for people with acquired brain injury that are appropriate and relevant for Aboriginal and Torres Strait Islander communities. During 2012 work focused on the development and evaluation of training resources for Aboriginal and Torres Strait Islander Health Workers.

Self-directed support funding for people with disabilities: a pilot evaluation (Quinn R, Goddard K, Kendall M)

Funded by the Department of Communities, this project aims to implement and evaluate self-directed funding support models for 80 people with disabilities living in the community, with the aim of increasing client autonomy, perceived control and self-determination. Internal and external evaluations are key components of the project.
Efficacy Oriented Care: an intervention with brain injured patients, family members, nurses and allied health professionals (Kuipers P, Mitchell M, Fleming J, Mills C, Kendall M, Turner B)

This project received funding from Griffith University and the PA Foundation. Data collection commenced during 2012 using exploratory interviews with patients, families and staff. This study will develop an efficacy-oriented care intervention for trialling across the continuum of care following acquired brain injury.

Clinical knowledge translation from specialist health practitioners to general health practitioner – evaluating a consultancy model of service delivery (Amsters D, Kuipers P, Kendall M, Lindeman M)

This project, which commenced in 2009, continued with data collection using a Q Sort survey during 2011. Analysis of this data is currently underway. The project aims to explore the efficacy of consultancy as a means of health service delivery and clinical capacity building in rehabilitation and aged care settings.

Finding the new ‘me’: an exploration of personal identity following traumatic injury (Kendall M, Amsters D, Goddard K, Smith S, Kendall E, Morriss E, Hinchy K)

The aim of this project is to investigate personal identity following spinal cord injury and brain injury and explore how it differs from those who have not experienced injury. Data collection for this project continued during 2012. It is anticipated that the study will inform the development of better models of psychosocial care.

Determinants of successful community transition for individuals with acquired brain injury and their families (Fleming J, Worrall L, Cornwall P, Haines T, Ownsworth T, Kendall M, Chenoweth L)

This ARC Linkage funded project involves a collaborative team of researchers from University of Queensland, Griffith University and Princess Alexandra Hospital. Industry partners include Disability Services and ABIOS. The project is a multisite project and was completed and reported on during 2012, with manuscript preparation continuing.

National and International Presentations

Susan Gauld
- Metro South Closing the Gap Showcase, Brisbane
- 3rd Annual ‘Improving the Social Determinants of Indigenous Health’ Workshop

Dr Melissa Kendall
- Community Rehabilitation Special Interest Group Videoconference series

Elissa Morriss
- World Brain Congress, Scotland
- Adult Guardians Conference
- College of Clinical Neuropsychologists Conference, Sydney

Judith Nance
- CRSIG seminar series

Ray Quinn
- TPCH World Social Work Day
- Mental Health Professionals Network

Sharon Smith
- 3rd Annual ‘Improving the Social Determinants of Indigenous Health’ Workshop
- Metro South Allied Health Showcase, Brisbane
Alcohol and Drug Assessment Unit

The Alcohol and Drug Assessment Unit (ADAU) is a small multidisciplinary service based within the Princess Alexandra Hospital Division of Medicine. The Unit provides inpatient consultation services and outpatient treatment programs for patients referred from the PAH and the community. Treatment approaches predominately involve cognitive behavioural therapy, often supplemented with medication.

Research conducted at the ADAU is directly related to improving clinical outcomes. In 2012 ADAU collaborated with national (The University of Queensland, Queensland University of Technology) and international (UCLA, University of Plymouth) groups.

Dr Gerald F.X. Feeney
Medical Director

Research Activities

Targeting treatments for alcohol dependence (Connor JP, Feeney GFX, Gullo M, Young RMcD)
This randomised control trial investigates whether empirically derived clinical decisions to target specific patient deficits in alcohol dependence treatment is clinically more effective than treatment as usual. Cost effectiveness and clinical efficiencies will also be examined. (This project is being undertaken by Jason Connor, MAPS, PhD, as part of his NHMRC Career Development Fellowship, awarded in 2012.)

Psychosocial functioning of liver transplantation patients
(Feeney GFX, Connor JP, Young RMcD)
ADAU examined the psychosocial functioning of patients post liver transplantation for alcoholic liver disease. Standardised psychological assessment tools were administered pre and 12 months post liver transplant. Significant improvement in functioning post transplantation was confirmed.

Measurement of alcohol craving (Feeney GFX, Connor JP, Young RMcD)
Alcohol craving is an important clinical marker for treatment relapse. It can be managed both psychologically and pharmacologically. Few reliable and valid psychometric instruments are available that measure alcohol craving. ADAU with collaborators from QUT developed a new measure of alcohol craving, recently published in the leading substance dependence journal *Addiction*. A briefer form of this measure is now being investigated at ADAU.
Research in the Princess Alexandra Hospital Anaesthetic Department continued to develop with several new projects in 2012, including the multicenter, international collaborative trial POISE 2 Study- Peri-operative ischemic evaluation study. The Department also conducted audits to measure key performance indicators in theatre waste management and various anaesthetic drug usages, resulting in substantial savings for the Department and the hospital.

PAH anaesthetics research and development governance lies with the Director of Research, Dr Pal Sivalingam, who is the Department’s lead clinician and provides day-to-day research management. Catherine Jowett continued for a third year as the Department’s Research Nurse, a full-time position made possible through the hospital private practice trust fund and one which helps to expand research activities involving medical students, residents, anaesthetic registrars and consultants. Immense help and guidance from Dr Bruce Burrow helped to lead the research team forward in all avenues.

The Department aims to attract anaesthetic trainees or science degree holders for anaesthetic research higher degrees. Its research focus is on properly designed and conducted investigations, with a preference for randomised controlled trials, the outcomes of which will benefit patients and the ability to care for them.

Dr Peter Moran
Director of Anaesthesia
Dr Pal Sivalingam
Director of Research

Research Activities

**Poise-2 -Peri-operative Ischaemic Evaluation-2 Trial**
(Sivalingam P, Moran P, Burrow B, Wilkes T)
There is marked variation among surgeons regarding aspirin use in the perioperative period because of lack of evidence. This is a large international placebo-controlled factorial trial to assess the impact of clonidine and acetylsalicylic acid (ASA) in patients undergoing non-cardiac surgery, who are at risk of a perioperative cardiovascular event.

**IV Oxycodone: A Comparison of IV Oxycodone and IV Morphine Patient Controlled Analgesia in Post Laparoscopic Nephrectomy Patients** (Sivalingam P, Solomos J, Breen C, Soroka M)
Does Oxycodone have minimal opioid induced side effects compared to Morphine? The aim of this project is to assess the analgesic efficacy and side effect profile of IV oxycodone compared with that of widely used IV Morphine.

**AURORA: The Australian and New Zealand Registry of Regional Anaesthesia** (Ngan J)
The study established a large clinical registry of patients who have received peripheral nerve blockade so as to determine the quality and safety of routine care. This register and database is being used as a benchmark to compare our practice with other major centres in the country.

**HIPEC- cytoreductive surgery for peritoneal malignancies - Case Series** (Fairweather N, Sivalingam P, Sparks D)
Only a few centres in Australia offer cytoreductive surgery for peritoneal malignancies. The aim is to develop some guidelines regarding the perioperative management of these patients. A total of 43 cases have been audited in the centre to date.

**Evaluation of perioperative predictors for acute kidney injury (AKI) after orthotopic liver transplantation** (Wyssusek K, Sivalingam P, Moran P)
Acute kidney injury is one of the most common complications after liver transplantation, especially in the early postoperative period, and is associated with a high mortality. A predictive model is needed which allows for early recognition and prevention of AKI.
Australian Prostate Cancer Research Centre - Queensland

The APCRC-Q is an initiative between the Queensland University of Technology (QUT) and Princess Alexandra Hospital. The Centre experienced several highlights in 2012 including the consolidation of its laboratory staff and equipment into the new Translational Research Institute on the PAH campus.

APCRC-Q researchers are strongly engaged in two new Movember initiatives – the Global Action Plan (GAP) Prostate Cancer Biomarker initiative and the Australian Survivorship Action Partnership (ASAP). APCRC-Q researchers are leading two Movember GAP projects each involving 21 other researchers in 9 countries across Australasia, North America and Europe, to better predict, characterise and treat aggressive prostate cancer. The ASAP initiative will facilitate the creation of a collaborative network of organisations focused on improving the lives of men living with prostate cancer, as well as their partners, families and carers.

Members of the APCRC-Q received significant research funding awards in 2012. Professor Pamela Russell led a successful NHMRC grant ($545,362) for simultaneous imaging and drug delivery for prostate cancer theranostics. Dr Jyotsna Batra and Professor Judith Clements were also awarded an NHMRC grant ($590,222) for their prostate cancer research. Dr Jennifer Gunter was one of only five early career prostate cancer researchers in Australia to be awarded a Prostate Cancer Foundation of Australia (PCFA) Young Investigator Fellowship ($351,108) and Dr Michael Doran also received project grant funding ($150,000) from the PCFA. In addition, the Centre is continuing to expand its Circulating Tumour Cell testing and analysis capabilities in close collaboration with the Multidisciplinary Team Clinic for Advanced Prostate Cancer based at the PA Hospital.

Professor Colleen Nelson
Executive Director

Professor Judith Clements
Scientific Director

Professor Pamela Russell
Head, Biomedical Imaging and Prostate Cancer Models

Research Activities

Clinical Trials

Effect of Tocotrienol in the inhibition of prostate cancer progression (Ling P)
This international clinical trial aims to test the anti-cancer effect of the vitamin E isomer gamma-tocotrienol on castration resistant prostate cancer patients. Patients will be recruited through Princess Alexandra Hospital (Australia), Gleneagles Intan Medical Centre (Malaysia), and Sarawak General Hospital (Malaysia). Agreements and ethics are being finalised.

The APCRC-Q operates Australasia’s only Veridex CellSearch® automated system, acquired by Queensland Health and housed at the PAH. This diagnostic test is used as an FDA approved assessment to monitor treatment response and cancer progression in a non-invasive manner.
Other Research

International collaboration with the PRACTICAL Genome Wide Association Study (GWAS) Consortium (Clements J, Batra J, Srinivasan S – APCRC-Q; Spurdle A, Lose F – QIMR; Eeles – ICR, UK)

Involvement continued in 2012 in the international PRostate cancer Association To Investigate Cancer associated Alterations in the genome (PRACTICAL) genome wide association study Consortium, with the contribution of DNA samples from 2,700 QLD cases to this GWAS of ~70,000 men with prostate cancer, from over 30 studies worldwide.

In-depth association and functional studies assessing the role of PSA and other related gene novel single nucleotide polymorphisms (SNPs) in prostate cancer (Clements J, Batra J, Srinivasan S – APCRC-Q; Spurdle A – QIMR; Eeles R – ICR, UK)

We have identified a novel non-synonymous SNP in the PSA loci to be highly significant for prostate cancer risk. Our findings suggest that some risk associated SNPs may impact on the biological functionality of cancer-associated proteins in prostate cancer development and progression.

Exosomes as a potential biomarker for advanced prostate cancer (Russell P, Nelson C, Soekmadji C)

In collaboration with Dr Rob Bristow (SSTARR, Toronto), sera from a longitudinal cohort of patients treated with radiotherapy will be analysed for exosome-derived biomarkers or radiotherapy response. Dr Soekmadji received a postdoctoral fellowship from the US Department of Defence Prostate Cancer Program for 2012-2013 for this project.

Novel Prostate Specific RNAs as new biomarkers and therapeutic targets in prostate cancer (Lehman M, Dinger M, Lai J, Nelson C)

We have mined RNA sequencing libraries from the Illumina Tissue bank and mapped out RNA that are specifically expressed in the prostate which includes ‘blocks’ of alternatively spliced, antisense, chimeric, and overlapping transcripts. To date, 12,720 prostate-specific blocks have been identified.

Delineating the role of steroid hormones in castration-resistant prostate cancer (Nelson C, Sadowski M, McPherson S)

The aim of this project is to identify set/s of genes that are targeted by steroid hormones acting via non-canonical steroid hormone receptors, and that may promote prostate cancer cell survival in the absence of androgens.


The objectives of this study are to identify genes which are differentially expressed in multiple tumours, within a patient and across a cohort of patients, and to identify genes that are specifically altered in individual tumour foci and could possibly indicate special biological behaviours that might allow differentiation between indolent and aggressive tumours.

The stress-activated proteins, YB-1 and G3BP, as novel therapeutic targets for prostate cancer (Nelson C, Kennedy D, Rockstroh A)

Identifying the molecular mechanisms underlying the development of androgen independence and therapeutic resistance during cancer progression is crucial to developing novel therapeutic strategies that make a significant impact on patient survival in advanced prostate cancer.

PSA and related protease, KLK4, as therapeutic targets; an integrated systems biology approach to discover the pathways initiated by PSA and KLK4 activity in prostate cancer progression (Clements J, Nelson C, Hutmacher D, Russell P, Overall C, Gorman J, Harris J)

This project is using proteomic and gene expression profiling coupled with novel 3D in vitro models that better replicate the in vivo tumour microenvironment to determine the specific components involved. The outcomes will determine the utility of PSA or KLK4 as therapeutic targets as well as biomarkers of clinical progression.
The role of angiopoietin-1 in the self-renewal and metastasis of prostate cancer stem cells (Ling P, Clements J, Nelson C)

The aim of this project is to demonstrate the critical function of Angiopoietin-1 in the maintenance of prostate cancer stem cell properties. We will determine whether the expression of the Angiopoietin-1 associated protein, Tie-2, in CTCs better predicts prostate cancer bone metastasis.

Testing the combined effect of two natural anti-cancer compounds on prostate cancer (Ling P)

In this project, Dr. Ling will investigate whether the two potent natural anti-cancer compounds (gamma-tocotrienol and polysaccharopeptide [PSP]) work synergistically in inhibiting prostate tumour development and progression. The main goal of this study is to develop an effective combined dosage which works better than the individual compound alone.


This Alliance is a key initiative under the Memorandum of Cooperation between Queensland (APCRC–Q, Griffith University’s Eskitis Institute) and British Columbia (the Centre for Drug Research and Development and the Vancouver Prostate Centre) and has an ultimate goal of discovering and commercialising the next generation of drugs derived from natural products.


The goal of this project is to use mathematical and experimental modelling of prostate cancer and to apply bioengineering concepts that will lead to a virtual prostate cancer model. The project aims to validate these multi-scale models to delineate biological and pathological avenues in healthy and diseased tissue.


The team is investigating the development of 3D synthetic biomaterial models to replicate the tumour microenvironment that prostate cancer cells grow in. We are using models of localised disease - cancer cells and stromal fibroblasts – as well as bone metastasis using a novel human osteoblast-derived matrix scaffold to mimic bone.

Systemic injection of mesenchymal stem cells to treat prostate cancer (Hutmacher D, Clements J, Russell P, Soekmadji C)

The team has been exploring the use of new models for studying bony metastasis from prostate cancer and for delivering nanoparticles/therapy to the metastatic sites. This project is one of the first to use the IVIS Spectrum imaging system installed at the Pharmacy Australia Centre of Excellence.

Simultaneous imaging and drug delivery for prostate cancer theranostics (Russell P, Tse B)

Studies determining whether prostate cancer has spread to local lymph nodes are underway with Dr Heston (Lerner Institute, Cleveland), Professor Whittaker and Dr Thurecht (AIBN, UQ) using smaller prostate specific targeting molecules that will be compared with currently used conjugates for their ability to enhance and provide specific tumour uptake of ferromagnetic nanoparticles.

PSMA targeted polymers for cytotoxic drug delivery to prostate cancer cells (Russell P, Whittaker A, Heston WD)

The project aims to develop F19-hyperbranched polymers that bind to PSMA, a biomarker of prostate cancer cells whose expression is upregulated in patients undergoing androgen deprivation therapy and in castrate resistant prostate cancer. Small molecules that inhibit PSMA’s enzymatic activity and bind to it with high affinity will also be assessed.

Insulin C-peptide as a biomarker for androgen deprivation therapy-induced metabolic syndrome (Nelson C, McKenzie I)

A major current thrust of the Centre’s work involves understanding the causal and potential therapeutic relationship between androgen deprivation therapy for metastatic prostate cancer and development of the metabolic syndrome, characterised by high insulin levels, development of insulin resistance and potential for type-2 diabetes to occur.

Relationship between serum insulin levels and the progression of castrate resistant prostate cancer (Nelson C, Gunter J, Lubik A)

Clinically based pilot studies at the Centre are assessing possible correlations between elevated insulin levels and time-to-progression to castrate resistant prostate cancer. Dr Gunter is also examining these relationships in the LNCaP prostate tumour cell line treated with androgens or insulin. She has performed whole genome micro array analysis.
Development of therapeutics for castrate resistant prostate cancer—targeting androgen synthesis in the prostate and the role of insulin and metabolic syndrome and obesity to prostate cancer progression (Nelson C)

Androgen deprivation therapy (or castration) provides remission from prostate cancer lasting about 2-4 years, but the prostate tumours begin to grow again and there is no curative therapy. This study will reveal the underpinning mechanism of current advances in advanced prostate cancer clinical trials with the new anti-androgen agent Abiraterone.


Metastatic prostate cancer will invariably develop into castrate resistant prostate cancer. This study will shed light on why men either respond or become resistant to abiraterone acetate, by investigating samples from both groups of men; helping to predict, and develop alternative therapies for, men who are resistant to abiraterone acetate.

Tyrosine kinases as therapeutic targets for prostate cancer (Ling P, Stephenson S, Herington A, Harris J)

A Lentiviral short-hairpin RNA library screening approach has identified protein kinases associated with chemotherapy drug (Docetaxel) sensitivity and identified more than 10 candidate protein kinases, as well as EphA4 and other novel kinases, which appear to either increase or decrease the response of prostate cancer cells to Docetaxel treatment.

Identification of PACE-1 as a novel therapeutic target for the treatment of prostate cancer (Ling P, Quinn R, Russell P)

In this study, the functional role of PACE-1, a protein recently identified as essential for prostate cancer cell survival (NHMRC grant awarded 2012-2014), in malignant transformation of prostate epithelial cells and in the development of metastatic prostate cancer will be defined.

Ongoing confirmation of preclinical proof of principle studies (Ling P)

In collaboration with The University of Hong Kong and Provital Pty Ltd, Dr Ling’s team has found that a compound called polysaccharopeptide (PSP) which is extract from the mushroom Turkey Tail can significantly inhibit prostate tumor formation in a transgenic mouse prostate tumour model.


APCRC-Q’s researchers are involved in collaborative teams focused on technology applications and health program evaluation and evidence. Professor Graves is leading the Health Program Evaluation and Evidence Speciality Group within Movember’s ASAP program. Dr Wagholikar and Professor Graves have developed a baseline model to describe the journey of advanced prostate cancer patients into eight unique health states while Professor Yates leads the health service delivery and program evaluation.

APCRC-Q through its clinical and academic staff underpins all of the above efforts.

Awards and Prizes

Professor Judith Clements
• Biotech Outstanding Achievement Award, Women in Technology

Ruth Fuhrmann-Luck
• Best Oral Presentation, Institute of Health and Biomedical Innovation (QUT) Postgraduate Conference

Dr Patrick Ling
• Best Oral Free Paper Presentation, 8th Organization of Oncology and Translation Research Conference

Jessica Lisle
• Best Poster, Australasian Prostate Cancer Conference, Translational Science category

Nataly Stylianou
• Best Poster, Institute of Health and Biomedical Innovation (QUT) Postgraduate Conference

Major Grants and Financial Support

| Total NHMRC funding received: | $1,534,551 |
| Competitive funding received from other sources: | $3,637,763 |
| Total funding received from commercially sponsored studies: | $19,170 |
National and International Presentations

Professor Judith Clements
• “Plasimogen Activation & Extracellular Proteolysis”, Gordon Research Conference, California, USA
• 29th Winter School on Proteinases and their Inhibitors - Recent Developments, Tiers, Italy
• “Proteolytic Enzymes & Their Inhibitors”, Gordon Research Conference, Lucca, Italy
• 3rd International Symposium on Vasoactive and Inflammatory Mediators - KININ 2012, Paris, France
• Australian and New Zealand Urogenital and Prostate (ANZUP) Cancer Trials Group Conference, Sydney
• 13th Australasian Prostate Cancer Conference, Melbourne
• Annual Scientific Meeting of the Endocrine Society of Australia and the Society for Reproductive Biology, Gold Coast
• Metastasis Research Society Conference, Brisbane
• Matrix Biology Society of Australia and New Zealand Annual Meeting, Gold Coast

Professor Adrian Herington
• Annual Scientific Meeting of the Endocrine Society of Australia and the Society for Reproductive Biology, Gold Coast

Dr Brett Hollier
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia

Dr Lidiya Jovanovic
• Australian and New Zealand Urogenital and Prostate (ANZUP) Cancer Trials Group Conference, Sydney

Dr Melanie Lehman
• Cambridge Healthtech Institute’s Inaugural Targeting Non-Coding RNA Conference, San Diego, USA
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia
• Cambridge Healthtech Institute’s Sequencing and Data Management Conference, San Diego, USA

Dr Patrick Ling
• 8th Organisation for Oncology and Translational Research Conference, Kyoto, Japan

Professor Colleen Nelson
• Irish Association for Cancer Research Annual Meeting, Belfast, Ireland
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia
• Rick Hansen Institute Interdependence Conference, Vancouver, Canada
• Queensland Health Cancer Clinical Network Prostate Forum
• Prostate Action Forum, Rotterdam, The Netherlands
• 13th Australasian Prostate Cancer Conference, Melbourne
• Queenstown Molecular Biology meeting, Queenstown, New Zealand
• Metastasis Research Society Circulating Tumour Cell Workshop, Brisbane
• 15th International Congress on Hormonal Steroids and Hormones & Cancer Symposium, Japan

Dr Derek Richard
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia

Dr Anja Rockstroh
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia

Professor Pamela Russell
• American Association for Cancer Research: Advances in Prostate Cancer Research Conference, Florida, USA
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia
• International Society for Extracellular Vesicles, Sweden
• 13th Australasian Prostate Cancer Conference, Melbourne
• 19th Annual Prostate Cancer Foundation Scientific Retreat, San Diego, USA

Dr Martin Sadowski
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia

Dr Carolina Soekmadji
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia
• International Society for Extracellular Vesicles, Sweden

Dr Sally-Ann Stephenson
• Australian-Canadian Prostate Cancer Research Symposium, Queensland, Australia

Professor Patsy Yates
• Cancer Nurses Society of Australia 15th Winter Congress, Hobart
Research Activities

Dr Kathy Kuipers joined the Hypertonicity Service Research Group as Research Director in 2012. The Group are testing the efficacy and effectiveness of different management protocols with objective measurements of outcome. Research is conducted on an interdisciplinary model with Allied Health and university-based researchers and research activities include; management of hypertonicity of muscles (spasticity) following neurologic injury, memory, dysphagia, and self-awareness training following injury.

Hypertonicity of muscles

Hypertonicity of muscles is a common sequel of central nervous system injury. It interferes with return of function with all activities of daily living, can result in permanent contracture and is often painful. The service model is also undergoing continuous reassessment in order to improve service offering for particular clinical syndromes associated with hypertonicity such as the painful hemiplegic shoulder, gait and balance.

Painful hemiplegic shoulder

Investigation by the Hypertonicity Group includes that of the painful hemiplegic shoulder with research on prophylactic measures which can prevent the development of this syndrome. Development of strategies to improve gait associated with hypertonicity involving computerised video analysis of gait.

Major Grants and Financial Support

Funding received from other sources: $15,000
Breast and Endocrine Surgery Unit

The Breast and Endocrine Surgery Unit at Princess Alexandra Hospital provides a comprehensive world-class tertiary surgical service for the management of breast and endocrine surgical conditions within a multi-disciplinary setting. Over 275 newly diagnosed breast cancers are treated within the unit each year. Breast cancer is managed in conjunction with the hospital’s Medical Oncology and Radiation Oncology Units. Surgeons meet on a weekly basis with clinicians from the other disciplines in a combined breast oncologic multi-disciplinary clinic to ensure that ‘state of the art’ breast cancer treatment is provided in keeping with nationally accepted best practice guidelines. A multidisciplinary Endocrine meeting is also conducted monthly between Surgeons, Endocrinologists and Radiologists to discuss and streamline management of patients with endocrine disorders.

The Unit’s 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 is also involved in collection of data for the RACS National Breast Cancer Audit of all breast cancers treated at the Princess Alexandra Hospital.

Members of the Unit have excellent collaborative working relationships with scientists in the Translational Research Institute for the conduct of clinically relevant research, particularly in the field of breast cancer. The Unit also plays a role in both undergraduate and post-graduate teaching of breast and endocrine surgical conditions.

Research Activities

Funded Clinical Trials and Research

**SNAC2: A randomised trial of extending sentinel node based management to women** (Wetzig N)
SNAC2 extends the work begun in SNAC1, which recruited 1,088 women over 4 years, and will determine if sentinel node biopsy causes less arm problems than axillary clearance. The goal is to establish the risk of local recurrence and long term safety of sentinel node biopsy, especially for women with larger or multiple tumours.

**IBIS II DCIS Trial** (Bennett I)

**IBIS II Prevention Trial** (Bennett I)

**Understanding the heterogeneity of invasive ductal breast cancers – a proteomic approach for the discovery of biomarkers and novel therapeutic targets** (Chopin L, Simpson P, Lakhani S, Bennett I, Hill M)
National Breast Cancer Centre Foundation Research Grant. Pilot study award.

**Examination of the expression and potential role of cancer associated viral sequences in the causation and outcomes of breast cancer patients** (Bennett I, Saunders N, Brown M)
Laboratory sequencing study of breast cancer samples for viral genomes.

National and International Presentations

Associate Professor Ian Bennett

- ‘Building the future of Cancer Care,’ Clinical Ultrasound for Breast & Endocrine Surgeons Workshop, GSA Annual Scientific Meeting, Hobart
- Applied Ultrasound for Breast Surgeons Workshop, Australian Society of Breast Diseases (ASBD), Melbourne
Established in 2008, the Cancer Nursing Research Group is based in the Division of Cancer Services at the Princess Alexandra Hospital. The service is led by Associate Professor Alexandra McCarthy, who holds a formal joint appointment between Cancer Services Southern and the School of Nursing, Queensland University of Technology.

Professor Patsy Yates, from the QUT School of Nursing, has been formally appointed Visiting Fellow to Cancer Services Southern.

Research Activities

Professors McCarthy and Yates led significant clinical research achievements and other policy and education outcomes in 2012 as a result of the strong clinical, academic and multidisciplinary partnerships they have developed with major stakeholders and clinicians throughout the Southern Area, especially at Princess Alexandra Hospital.

Clinical Trials

Cryotherapy for docetaxel-induced nail toxicities: case control study (McCarthy A, Shaban R, Vick J, Ryan J, Watson C)
This project, funded by the PA Hospital Foundation, investigates the feasibility and efficacy of ‘frozen glove’ therapy to prevent the hand and nail toxicities that can result from the administration of taxotere. The pilot phase of 25 patients was completed in 2010. Recruitment and data collection was completed in December 2012.

Standardised two-step process of pre-screening and comprehensive assessment of the older cancer patient with solid malignancy (McCarthy A, Yates P, Walpole E, Thomson D, Salkield G, Hausmann S, Skerman H)
This mixed-method study investigates whether a standardised, computerised, nurse-administered assessment of cancer patients 65 years or older can determine fitness for chemotherapy. Data collection occurred from October 2010 to March 2012. A model of service delivery for older cancer patients will be developed from the data.

Other Research

- Feasibility study: Longitudinal assessment of cognition and affect in HSCT-A patients
- Development, implementation and evaluation of nursing guidelines for the management of fever in adult cancer patients
- Behavioural intervention for managing menopause symptoms in women with breast cancer
- Standardised two-step process of pre-screening and comprehensive assessment of the older cancer patient with solid malignancy
- Cryotherapy for docetaxel-induced nail toxicities: Case control study
- Ginger intervention for chemotherapy-induced nausea: Feasibility study
- Validating a novel, low cost, automated malnutrition screening system as a predictor of nutritional risk in the Oncology Day Care Unit
- Evaluating novel methods for delivering non-pharmacological interventions for dyspnoea in cancer patients

Major Grants and Financial Support

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Cardiology Department

The broad expertise of the Princess Alexandra Hospital Cardiology Department has secured a large number of clinical trials from a variety of commercial companies, the National Institute of Health, and investigator-driven research over the past year.

Research areas cover coronary artery disease, cardiac arrhythmias, cardiac devices, acute/chronic systolic/diastolic heart failure, coronary angiography and percutaneous transluminal coronary angioplasty and cardiac echocardiography. Implementation of Good Clinical Research Practice is paramount in all of the Department’s clinical research.

Dr Paul Garrahy
Director of Cardiology

Research Activities

The Cardiology Department continues to lead the world with the investigator initiated Protect-Pace Study, for which Dr Gerald Kaye is the International Study Chair. For this study, the Cardiology Department has recruited the highest number of participants worldwide.

Clinical Trials

Alecardio Study (Garrahy P)
New study drug to reduce cardiovascular risk in patients with a recent Acute Coronary Syndrome event and Type 2 diabetes mellitus.

Averroes Study (Garrahy P)
Antiplatelet agent vs aspirin to prevent stroke in atrial fibrillation patients who have failed or are unsuitable for Vitamin K antagonist treatment.

dalHeart 1 Study (Garrahy P)
Lipid medication vs placebo on cardiovascular risk in stable coronary disease patients with a documented recent Acute Coronary Syndrome.

Echo-CRT Study (Korczyk D, Kaye G)
Heart failure subjects outside the standard ICD insertion guidelines parameters.

Freedom Study (Garrahy P)
Percutaneous transluminal coronary angioplasty vs coronary artery bypass grafting in diabetic subjects with multivessel disease.

Pegasus Study (Garrahy P)
Double-Blind, Placebo Controlled, Parallel Group, Multinational Trial, to Assess the Prevention of Thrombotic Events with Ticagrelor Compared to Placebo on a Background of Acetyl Salicylic Acid (ASA) Therapy in Patients with History of Myocardial Infarction Study

Preservation I Study (Garrahy P)
A Placebo-Controlled, Multicenter, Randomized, Double Blind Study To Evaluate The Safety And Effectiveness Of Ik-5001 For The Prevention Of Remodeling Of The Ventricle And Congestive Heart Failure After Acute Myocardial Infarction

Respond CRT Study (Kaye G)
Clinical trial of the SonRtip Lead and Automatic AV-VV Optimization

S44121 Study (Korczyk D)
Evaluation of the anti-arrhythmic effects of 3 oral dosages of S 44121 versus placebo in patients with chronic heart failure and left ventricular systolic dysfunction at risk for ventricular arrhythmia. A 12-week, randomized, double-blind, parallel-group, placebo controlled, international multicentre study.
Other Research

Investigating the knowledge, attitudes, beliefs and cardiovascular risk factor behaviours of patients post acute myocardial infarction.

Patient Partnership Model - Clinical Handover (Boyde M, Witt J, Jiggins L)
Investigating if introducing a clinical handover incorporating bedside handover was associated with improvements in the handover process, as well as patient and nursing staff satisfaction.

Investigating the effectiveness of a multimedia educational intervention in reducing unplanned hospital admissions, and improving knowledge and self-care abilities of patients with heart failure.

Evaluation of unplanned admissions for Chronic Heart Failure (Peters R, Wegglo W, Boyde M, Korczyk D, Ha T)
Investigating the underlying causes, contributing factors and incidence of unplanned hospital readmissions for heart failure patients

Neurological outcomes and Quality of Life of survivors of In-hospital Cardiac Arrests (Boyde M, Tewhatu L, Lee, C)
Assessing the neurological outcome of survivors of in-hospital cardiac arrests following hospital discharge, and to assess the health related quality of life of survivors.

Evaluation of in-hospital cardiac arrests (Boyde M, Tewhatu L)
Evaluating the outcomes of in-hospital cardiac arrests focusing on immediate survival expressed as return of spontaneous circulation and survival to hospital discharge.

Snapshot Study (Garrahy P)
Australian and New Zealand SNAPSHOT ACS.

Awards and Prizes

M Boyde, C Turner, D Thompson, S Stewart
- Publication of the Year Award International Nurses Day, Princess Alexandra Hospital

Cindy Hall
- Most Nominated Research Coordinator in Australia, Clinical Trials Honour Roll Association of Regulatory and Clinical Scientists

Major Grants and Financial Support

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National and International Presentations

Dr Mary Boyde
- 6th Annual Australasian Cardiovascular Nursing College (ACNC) Conference, Sydney
- 23rd International Nursing Research Congress, Brisbane
- Australian Cardiovascular Health and Rehabilitation Association (ACRA) and Heart Foundation pre-conference workshop, Brisbane
- 60th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand (CSANZ), Brisbane

Cindy Hall
- Association of Regulatory and Clinical Scientists National Conference, Sydney

Dr Arnold Ng
- 60th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand (CSANZ), Brisbane
- Australian Sonographer Association, Canberra
Research Activities

Detection of subclinical myocardial disease
Using image processing techniques such as tissue Doppler imaging, speckle tracking, strain and strain rate imaging and myocardial torsion, we are able to detect early changes in myocardial mechanics both at rest and with stress which may lead to advanced cardiovascular disease. This is especially important in diseases such as diabetes and hypertension and in patients undergoing chemotherapy.

Assessment of myocardial viability, coronary artery disease and contractile reserve
In symptomatic patients, stress echocardiography can identify those who do not need further treatment. The ability to diagnose viable myocardial segments in the heart after infarction without having to use other expensive and potentially dangerous tests is beneficial. In patients with valvular disease, assessing contractile reserve with exercise is crucial in deciding whether patients need surgery.

Nurse-led intervention in cardiovascular disease management programs
In patients with heart failure and peripheral vascular disease or at risk of developing cardiovascular disease, managing care without the patient having to travel or spend time in hospital is beneficial and, we believe, the future of managed care in Australia. Our team of highly qualified research nurses recruit, assist in testing and then follow patient progress.

High resolution vascular imaging, assessment of central arterial pressure, arterial distensibility and vascular reactivity
There is a close association between abnormal vascular function and patients having coronary artery disease, hypertension, renal failure and heart failure. We have been using high resolution ultrasound imaging of large arteries to measure intima-media thickness (IMT), brachial reactivity and arterial compliance which are all measures of atherosclerotic burden and impaired arterial function.
The Centre for Functioning and Health Research (CFAHR) operates across Metro South Health and is a strategic collaboration with three leading Queensland university partners: The University of Queensland, Griffith University and the Queensland Institute of Technology. This unique allied health research centre integrates research, education and practice across the health care continuum to deliver innovative changes in practice.

Overall, in 2012 the team enjoyed strong success in competitive funding across a range of funding bodies, including involvement in NHMRC project grants and a Centre for Research Excellence grant.

CFAHR researchers contributed to numerous cross-disciplinary studies, building networks and fostering allied health clinician research. They also conducted numerous research training and mentorship activities across the health service in 2012. The CFAHR team is a highly active research group with staff currently contributing to over 80 collaborative projects locally, nationally and internationally, and with a publication output of over 70 peer reviewed publications in 2012.

In 2012 CFAHR team gained a new member, Dr Bena Cartmill, an Office of Health and Medical Research Fellow who holds a joint appointment with CFAHR and the Speech Pathology Department, Princess Alexandra Hospital.

Professor Liz Ward
Head of the Research Unit

**Research Activities**

**High intensity aphasia clinics: embedding the evidence in Queensland Health contexts** (Wenke R, Lawrie M, Hobson T, Comben W, Romano M, Cardell E, Ward E)
This multicentre trial explored the outcomes and costs of three different forms of aphasia rehabilitation and reported on the cost-benefits for intensive treatment modes.

**Long term swallowing outcomes in head and neck patients: comparing non surgical treatment regimes** (Cartmill B, Cornwell P, Ward E, Davidson W, Porceddu S)
This longitudinal cohort study documented the negative impacts on early and long term swallowing and nutritional function for patient undergoing a specific altered fractionation radiotherapy protocol.

This PAH-RBWH collaboration demonstrated the utility and clinical acceptability of training speech pathologists in tracheostomy management skills using human simulation scenarios.

**Understanding lateral reactive balance control mechanisms in older adults with hip osteoarthritis** (Hatton AL, Brauer SG, Crossley KM, McGregor AL)
This project aims to investigate how hip osteoarthritis affects people’s ability to respond to a sudden loss of balance in a sideways direction by exploring how the different body segments move and how the leg and trunk muscles work to keep individuals upright.

**Improving postural stability and reducing falls risk in people with Parkinson’s Disease using textured insoles: a randomised controlled trial** (Kerr G, Davids K, Brauer S, Hatton A, Hennig E)
The aim of this study is to investigate whether long-term wear of textured shoe insoles can improve balance, walking ability and rate of falls in people with Parkinson’s disease.

**The long-term effects of textured shoe insoles on balance, walking ability and function in people with Multiple Sclerosis** (Dixon J, Hatton AL, McKeon P, Warnett R, Rome K, Martin D)
The aim of this study is to investigate whether long-term wear of textured shoe insoles can improve balance, walking ability and daily activity in people with Multiple Sclerosis.
Improving physical activity outcomes for inactive patients
(McPhail S, Marshall A, Schippers M, Kuipers P)
This multi-study program of research includes a series of investigations and clinical trials to evaluate the effectiveness of remote-access technologies (phones, web-based interactions, SMS) for increasing physical activity.

This multi-study program of research includes a series of studies describing the development and validation of an ankle-fracture specific patient reported outcome measure.

The effects of thrombolysis following ischaemic stroke on communication and swallowing outcomes (Finch E, Clark K, Short K, Smith L, Antonio M, Aitken P)
This pilot study aims to investigate the communication and swallowing outcomes of patients who receive thrombolysis for acute ischaemic stroke. It is anticipated that the pilot data will be used to source funding for a larger study.

Improving communication between health practitioners, students and patients with aphasia (Finch E, Lethlean J, Fleming J, McPhail S, Brown K, Cameron A, McGovern D)
This project aims to investigate the effects of introducing a communication partner training program on communication between people with aphasia, health professionals and health professional students. The project was awarded a Queensland Health AHWACU Health Practitioner Research Grant for 2011-2012.

Analysis of factors associated with Indigenous and non-Indigenous suicide in the Northern Territory (Kuipers P, Appleton J, Pridmore S)
This interstate collaboration is using novel strategies for the analysis of Coroners’ reports of completed suicide to inform suicide prevention.

This RCT-based economic evaluation investigated the circumstances under which this falls prevention intervention is likely to save money and prevent falls.

Determinants of successful transition from hospital to home for individuals with acquired brain injury and their family caregivers (Fleming J, Nalder E, Turner B, Cornwell P, Worrall L, Ownsworth T, Haines T, Kendall M, Chenoweth L) Funded by an ARC-Linkage Project Grant, this project is a mixed methods investigation of sentinel events during the period of transition home for people with brain injury.

Evaluation of the utility of a newly developed virtual reality prospective memory task for individuals with traumatic brain injury (Shum D, Fleming J, Man D, Griffin J, Patterson F, Canty A)
This study funded by the PA Foundation aims to establish the clinical utility of a computerised shopping task in a ‘virtual mall’ for the assessment and rehabilitation of forgetfulness in adults with traumatic brain injury.

An investigation into the effectiveness of computer-based therapy for aphasia (Finch E, Hill A, Clark K)
This project aims to investigate the effectiveness of computer-based therapy as an adjunct to traditional speech pathology intervention for patients who experience naming difficulties after stroke. This project was awarded a Queensland Health Rural Stroke Outreach Service Grant in 2011, and resulted in a publication in press in 2012.

Evaluation and monitoring of Community Based Rehabilitation (CBR) (Lukersmith S, Madden RH, Gargett A, Kuipers P, Llewellyn G, Hartley S)
This international collaboration with the Centre for Disability Research and Policy at the University of Sydney is investigating and trialling strategies for improved evaluation of CBR.

Consumer, family member and community engagement in Metro South health care (Kuipers P, Pager S, Quinn R, Amsters D, Kendall M)
A multi-study collaboration within Metro South Health to maximise and meaningfully measure consumer and family member engagement in health services, policy and in health-related research.
Financing and management of lifetime care for adults with acquired disabilities and high care needs (Foster M, Henman P, Fleming J, Tilse C)

This ARC-Linkage project examines the funding, service system, and policies associated with the lifetime care and support and young adults with high care needs due to acquired disabilities such as brain injury, spinal cord injury, or progressive neurological diseases.

Major Grants and Financial Support

Total NHMRC funding received: $173,500
Competitive funding received from other sources: $925,166

National and International Presentations

Dr Anna Hatton
- PA Week, Princess Alexandra Hospital
- Evolution 2012, Podiatry Conference, New College Durham, UK
- 2nd Conference of the Saudi Physical Therapy Association Neurological Rehabilitation, Riyadh, Saudi Arabia

Associate Professor Jennifer Fleming
- Cognitive Rehabilitation Workshop for Occupational Therapy Australia NSW, Sydney
- Goal Planning and Self-awareness in brain injury workshop for Australian Society for the Study of Brain Impairment, Sydney
- Research Higher Degree Supervision Workshop, University of Queensland, Brisbane
- Career Path presentation to occupational therapy students, University of Queensland, Brisbane

Associate Professor Pim Kuipers
- World Congress of Community Based Rehabilitation
- “Centre for Disability Research and Policy, University of Sydney, Faculty of Health Sciences”

Dr Steven McPhail
- International Congress on Physical Activity and Public Health, Sydney
- Australian Disease Management Association Conference, Melbourne
- National Australian Institute of Radiography Research Symposium, Brisbane
- Australian Association of Gerontology, Brisbane

Professor Elizabeth Ward
- Application of Modified Balloon Dilatation in patients with Dysphagia Workshop - Guangzhou, Guangdong Province, China
- American Speech and Hearing Association Convention - Altanta, Georgia, USA
- Joint Meeting of the International Psycho-Oncology Society 14th World Congress and the Clinical Oncological Society of Australia’s 39th Annual Scientific Meeting - Brisbane, Australia
- Australian and New Zealand Head and Neck Cancer Society Conference - Brisbane, Australia
- Speech Pathology Australia National Conference - Tasmania, Australia
- The Taiwan Speech-Language-Hearing Association Tracheostomy Management workshop - Taiwan
- Head and Neck Cancer: Current concepts, pathways and problem solving for speech pathologists - Princess Alexandra Hospital, Brisbane, Australia
- Zurcher Dysphagietagung: Stationare und ambulante Rehabilitation von Dysphagien zweckmassig-notwendig-wirtschaftlich - Zurich, Switzerland
Centre for Kidney Disease Research

The Centre for Kidney Disease Research (CKDR) is one of Australia’s leading kidney disease research centres, with an international reputation for excellence in research. Consisting of the Translational Research Laboratories, Princess Alexandra Hospital Nephrology Clinical Research Group, the Australasian Kidney Trials Network (AKTN) and the Research Unit at the Royal Brisbane and Women’s Hospital, the researchers of the CKDR are working at the forefront of global trends in research to understand the cellular and molecular basis of kidney disease and to trial innovative new clinical treatments to improve the health and well-being of people with kidney disease.

Renowned for its studies in acute and chronic kidney disease and kidney cancers, the Centre has particular expertise in translating results from laboratory and clinical sciences for application to improve public health outcomes.

The major research highlights and achievements of the CKDR in 2012 included:

- Successful completion of the HONEYPOT trial (n=371)
- Successful completion of the HERO trial (n=51)
- Three successful new NHMRC Project Grant applications for funding in 2013, including CKD-FIX trial ($1.9 million), IMPROVE-CKD trial ($1.5 million) and TESTING trial ($2.7 million)
- Publication of the balANZ trial results in the Journal of the American Society of Nephrology
- Successful new Cancer Council Grant application for funding in 2013 (Hooper, Lopez-Otin, Quigley, Hill, Gobe)
- Completion of five PhD enrolments, success in application for Fellowships to support visiting scientists and travel awards for RHD students to attend international conferences, and initiation of two new PhD enrolments.

Associate Professor Glenda Gobe
Professor David Johnson
Professor Robert Fassett
Co-Directors

Research Activities

Clinical Trials

The balANZ trial Biomarker Sub-study - A sub-study of a multicentre randomised controlled trial of Balance® versus conventional PD solution in 185 Australian and New Zealand PD patients (Cho Y, Johnson DW, Coburn A)
This project aims to look at the impact of using novel, biocompatible peritoneal dialysis solutions on peritoneal, serum and urinary biomarkers and their relationship with clinical outcomes in peritoneal dialysis patients.

The IMPENDIA trial – Multi-centre, prospective, randomized trial to demonstrate Improved Metabolic Control of PPEN Vs DDDD in 270 Diabetic CAPD patients (Johnson DW, Coburn A)
This multi-centre, multi-national randomised controlled trial is looking at the impact of low sugar dialysis solutions on blood sugar control in diabetic dialysis patients. Results have been submitted for publication.

The HONEYPOT trial (Johnson DW, Hawley CM, Isbel NM, Clark C, Coburn A, Vergara L)
This multi-centre, multi-national randomised controlled trial is looking at the impact of topical Medihoney versus mupirocin on the rate of catheter-associated infections in 371 peritoneal dialysis patients. Results will be presented at the 2013 World Congress of Nephrology and submitted for publication shortly thereafter.
The HEMATOCRIT trial (Barraclough K, Johnson DW, Hawley CM)
This single-centre randomised controlled trial determined that a novel iron supplement (heme iron polypeptide) did not provide better correction of anaemia in peritoneal dialysis patients compared with standard iron tablets. The results were published in 2012.

The HEALTHY-CATH trial (Broom J, Playford G, Johnson DW, Hawley CM)
This single-centre randomised controlled trial evaluated the effect of instilling alcohol in dialysis catheters versus standard heparin on bloodstream infections. It found that ethanol show promise as a prophylactic agent for catheter-related bacteraemia. The results were published in 2012.

The HERO trial (Johnson DW, Hawley CM, Leary D, Harlen K, Badve S)
This multi-centre randomised controlled trial aims to evaluate the effect of oxpentifylline versus placebo on correction of anaemia in patients already treated with erythropoiesis stimulating agents. The trial completed in December 2012 and the results will be published in 2013.

The SHARP-ER trial (Johnson DW, Sudak J)
This study will evaluate a 5-year extended follow-up of a multi-centre, multi-national randomised controlled trial evaluating the effects of cholesterol lowering drugs on heart disease in patients with chronic kidney disease.

The initiating dialysis early and late (IDEAL) study – peritoneal dialysis sub-study (Johnson DW, Leary D)
This multi-centre, multi-national randomised controlled trial post hoc study examined the impact of starting peritoneal dialysis early (ie at a rate higher than standard levels of kidney function) on clinical outcomes (such as death, heart attacks, etc). Early start PD did not confer a survival benefit. The results will be published in 2013.

The EVOLVE trial (Hawley C, Sudak J)
This multi-centre, multi-national randomised controlled trial assessed the effects of a novel calcium-sensing receptor blocker (cinacalcet) on heart disease events in patients with chronic kidney disease. Cinacalcet did not confer a benefit. The results were published in the New England Journal of Medicine in 2012.

The C.E. DOSE trial (Johnson DW, Strippoli GFM)
This multi-centre, multi-national randomised controlled trial aims to evaluate the effects of a fixed high dose of erythropoietin (18,000 IU/week) versus a fixed low dose of erythropoietin (6,000 IU/week) on death, cardiovascular events, quality of life and costs in haemodialysis patients.

The ACTIVE trial (Van Eps CL, Johnson DW, Campbell S, Isbel N, Mudge D, Hawley CM, Sudak J)
This multi-centre, multi-national, open-label randomised controlled trial aims to evaluate the effects of extended hours home haemodialysis (>24 hours/week) versus standard hours home haemodialysis (<18 hrs/week) on quality of life, death, cardiovascular events and healthcare costs.

The FAVOURED trial (Hawley C, Mudge D, Coburn A, Watson M, Paul-Brent P)
This multi-centre, multinational randomised controlled trial is evaluating the effects of fish oil and aspirin on clotting of dialysis access in haemodialysis patients.

The BLOCADE trial (Hawley C, Isbel N, Mudge D, Vergara L, Paul-Brent P, Leary D, Badve S)
This multi-centre randomised controlled trial aims to evaluate the effects of beta-blocker therapy versus placebo on death and heart events in haemodialysis patients with impaired heart function.

Omega 3 aspirin Skin cancer study (Campbell S, Isbel N, Green A, Whitman D)
A single centre placebo controlled study to examine the benefit of Omega 3 and aspirin in the prevention of nonmelanoma skin cancer in renal transplant recipients.

The CORAL trial (Mudge DW, Sudak J)
This multi-centre, multi-national randomised controlled trial is evaluating whether patients with kidney disease and high blood pressure due to narrowing of the kidney arteries is best treated with blood pressure pills alone or by inserting a stent into the kidney arteries to keep the artery open.

The LANDMARK 3 trial (Isbel N, Sonnenburg K, Ditterich L)
This single-centre, randomised controlled trial investigated the effects a co-ordinated lifestyle program (diet and exercise) on the development of heart disease in patients with chronic kidney disease.

The PYR-210 trial (Isbel N, Pitkin M)
This industry-sponsored randomised controlled trial is investigating the safety and effectiveness of a new agent on the prevention of nerve damage in patients with diabetes.

The TEMPO (Johnson DW, Campbell S, Isbel N, Hawley CM, Mudge DW, Pitkin M)
This industry-sponsored randomised controlled trial found that a new agent called tolvaptan slowed kidney cyst growth and progression of kidney disease in patients with polycystic kidneys. The results were published in the New England Journal of Medicine in 2012 and an extended follow-up trial is planned.
The PEXIVAS trial (Hawley C, Isbel N, Harlen K, Reidlinger D, Badve S)
This multi-centre, multi-national randomised controlled trial aims to evaluate the effect of phosphate binder, lanthanum carbonate, versus placebo on aortic pulse wave velocity (a surrogate measure of cardiovascular disease) in patients with moderately advanced chronic kidney disease. A NHMRC project grant for $1.5 million was secured for the year commencing 2013.

The IMPROVE-CKD trial (Hawley C, Badve S, Reidlinger D, Morrish A)
This multi-centre, multi-national randomised controlled trial aims to evaluate the effects of allopurinol (a drug commonly used to treat gout) versus placebo on the progression of kidney failure in patients with moderately advanced chronic kidney disease. A NHMRC project grant for $1.9 million was secured for the year commencing 2013.

The TESTING Trial (Johnson DW)
This multi-centre, multi-national randomised controlled trial aims to evaluate the effects of steroid therapy versus standard blood pressure treatment on kidney failure progression in patients with chronic kidney disease due to IgA nephropathy. A NHMRC project grant for $2.7 million was secured for the year commencing 2013.

The BEACON Trial (Isbel N, Johnson D, Campbell S, Hawley C, Van Eps C, Mudge D)
This industry-sponsored randomised controlled trial is investigating the safety and effectiveness of a new agent on slowing progression of kidney disease in patients with type 2 diabetes. (The trial was ceased prematurely in 2012 due to safety concerns.

The LOW-SALT CKD trial (Campbell K, Hall E, Bauer J, Stowasser M, Pimenta E, Isbel N, Hawley C, Johnson D)
This investigator-initiated single-centre randomised controlled trial aims to investigate the effect of a low versus moderate sodium diet on BO, CV risk, QOL and salt taste preference in patients with moderate chronic kidney disease.

The UREMIC-TOXIN trial (Rossi M, Johnson DW, Campbell K)
This investigator-initiated single-centre randomised controlled trial aims to determine the effect of synbiotics on oxidative stress, inflammation and cardiovascular outcomes in patients with chronic kidney disease. A PAH grant for $75,000 was secured for the year starting 2013.

The ORAL-D Trial (Strippoli GFM, Johnson DW)
This investigator-initiated study will estimate the prevalence, characteristics and correlations of oral health and clinical outcomes (mortality and hospitalization) in 4500 dialysis patients from randomly selected outpatient dialysis clinics in Europe (France, Hungary, Italy, Poland, Portugal, Spain) and South America (Argentina).

Intraperitoneal (IP) Vancomycin plus oral Moxifloxacin versus IP Vancomycin plus IP ceftazidime for the treatment of peritoneal dialysis-related peritonitis: a Multicenter Randomized Controlled study
This international collaboration with the China North PD Network will examine 2 different antibiotic regimens for treating peritoneal dialysis-associated peritonitis.

The AVATAR Trial (Johnson D, Watson W, Morrish A)
Ace inhibition for the preservation of renal function and patient survival in kidney transplantation. This international collaboration with the Ottawa Hospital Research Institute is being led internationally by Dr Greg Knoll, and by Dr Helen Pilmore in the ANZ region.

Other Research - Peritoneal Dialysis
Predictors and outcomes of peritonitis in the Australian and New Zealand PD patient populations (Johnson DW)
This national registry study aims to determine the predictors, microbiology, treatment and outcomes of peritonitis in peritoneal dialysis patients.

The impact of APD versus CAPD on survival of Australian and New Zealand peritoneal dialysis patients (Johnson DW, Badve S)
This national registry study aims to determine whether or not novel, biocompatible peritoneal dialysis solutions improve clinical outcomes in peritoneal dialysis patients.

A systematic review of the effects of biocompatible peritoneal dialysis solutions on patient outcomes (Cho Y, Johnson DW)
This Cochrane review of randomised controlled trials aims to determine whether or not novel, biocompatible peritoneal dialysis solutions improve clinical outcomes in peritoneal dialysis patients.

A systematic review of the effects of icodextrin on patient outcomes (Cho Y, Johnson DW)
This Cochrane review of randomised controlled trials aims to determine whether or not novel, biocompatible peritoneal dialysis solutions improve clinical outcomes in peritoneal dialysis patients.

Peritoneal dialysis outcomes after temporary haemodialysis transfer for severe peritonitis (Cho Y, Badve S, Johnson DW)
This national registry study is evaluating the outcome of peritoneal dialysis patients who temporarily transfer to haemodialysis because of severe peritonitis and then choose to return to peritoneal dialysis.
Effect of monitoring day 2 aminoglycoside levels on peritonitis outcomes in peritoneal dialysis patients (Badve S, Johnson DW)
This national registry study evaluated whether measuring random serum gentamicin levels on day 2 of Gram-negative peritonitis episodes was associated with improved efficacy and safety.

Remote indigenous peritoneal dialysis patients have higher risk of peritonitis, technique failure, all-cause and peritonitis-related mortality (Johnson DW)
This national registry study evaluated the impact of indigenous racial origin on peritoneal dialysis outcomes.

Effect of seasonal variation on peritonitis incidence in Australia and New Zealand (Cho Y, Johnson DW, Hawley C, Badve S)
This national registry study evaluated the impact of season on peritonitis rates, microbiology, treatment and outcomes in peritoneal dialysis patients.

Effect of climatic region on peritonitis incidence in Australia and New Zealand (Cho Y, Johnson DW, Hawley C, Badve S)
This national registry study evaluated the impact of living in tropical, subtropical, temperate, grassland or desert climates on peritonitis rates, microbiology, treatment and outcomes in peritoneal dialysis patients.

Effect of remoteness of residence on peritonitis incidence in Australia and New Zealand (Cho Y, Johnson DW, Hawley C, Badve S)
This national registry study evaluated the impact of living more than 100 km away from a peritoneal dialysis unit on peritonitis rates, microbiology, treatment and outcomes in peritoneal dialysis patients.

Weekend vs weekday presentations with peritoneal dialysis-associated peritonitis (Cho Y, Johnson DW, Hawley C, Badve S)
This national registry study evaluated the impact of microbiology, treatment and outcomes of peritonitis in peritoneal dialysis patients presenting to hospital on a weekend (when staffing levels are reduced) compared to a weekday.

Nutrition in PD study: medical, nutritional and social factors affecting protein intake in peritoneal dialysis patients (Young V, Campbell K, Badve S, Bates A, Johnson D)
The purpose of this study is to find what barriers there might be to having good nutrition while having PD.

Other Research - Haemodialysis
Ethanol lock therapy for the prevention of tunnelled catheter-related bacteraemia in haemodialysis patients (Broom J, Playford G, Johnson DW, Hawley CM)
This single-centre randomised controlled trial evaluated the effect of instilling alcohol in dialysis catheters versus standard heparin on bloodstream infections.

A systematic review of beta blocker therapy in CKD patients with cardiomyopathy (Badve S, Hawley C)
This Cochrane systematic review evaluated the effects of beta-blocker therapy versus placebo on death and heart events in chronic kidney disease patients with impaired heart function.

Home versus in-centre haemodialysis (Johnson DW, Strippoli GFM)
This Cochrane systematic review of randomised controlled trials aims to evaluate the relative benefits of dialysis at home versus at hospital.

Other Research - Transplantation
Biomarkers in transplantation external evaluation phase (BiT2) (Isbel N, Campbell S, Johnson DW, Hawley CM, Mudge DW, Van Eps CL, Leary D)
This observational cohort study is examining the roles of different biomarkers (proteins measured in the blood of urine) for predicting clinical outcomes in kidney transplant patients.

A prospective observational case-control study to assess predictors for BK viraemia in adult kidney transplant recipients (Isbel N, Barraclough K, Leary D, Johnson DW)
This observational case-control study is trying to identify what factors predict the occurrence of BK virus infection after kidney transplantation.

Other Research - General Nephrology
Angiotensin converting enzyme inhibitors, angiotensin receptor blockers and combined therapy in patients with micro- and macroalbuminuria and other cardiovascular risk factors: a systematic review of randomized controlled trials (Johnson DW, Strippoli GF)
This Cochrane review of all available randomised controlled clinical trials aims to evaluate the effects of angiotensin converting enzyme inhibitors and/or angiotensin receptor blockers (forms of blood pressure pills) on clinical outcomes (heart events and death) in patients with chronic kidney disease.

Outcomes of end-stage renal failure secondary to haemolytic-uraemic syndrome in Australia and New Zealand – a multicentre registry study (Tang W, Mahondas J, Johnson DW, Badve S, Hawley C)
This national registry is looking at dialysis and kidney transplant outcomes in all patients treated for haemolytic-uraemic syndrome in Australia and New Zealand since 1963.

Interventions for erythropoietin-resistant anaemia in dialysis patients (Badve S, Hawley CM, Johnson DW)
This Cochrane systematic review of all randomised controlled trials aims to evaluate the effects of different treatments for improving the effectiveness of erythropoietin to treat anaemia in chronic kidney disease.
Outcomes of end-stage renal failure secondary to anti-glomerular basement membrane antibody disease in Australia and New Zealand – a multi-centre registry study (Tang W, Johnson DW, Badve S, Hawley C)
This national registry is looking at dialysis and kidney transplant outcomes in all patients treated for end-stage renal failure secondary to anti-glomerular basement membrane antibody disease in Australia and New Zealand since 1963.

Outcomes of end-stage renal failure secondary to Alport’s syndrome in Australia and New Zealand – a multi-centre registry study (Tang W, Mallett A, Johnson DW, Badve S, Hawley C)
This national registry is looking at dialysis and kidney transplant outcomes in all patients treated for end-stage renal failure Alport’s syndrome in Australia and New Zealand since 1963.

Outcomes of end-stage renal failure secondary to fibrillary glomerulonephritis in Australia and New Zealand – a multi-centre registry study (Tang W, Mallett A, Johnson DW, Badve S, Hawley C)
This national registry is looking at dialysis and kidney transplant outcomes in all patients treated for end-stage renal failure secondary to fibrillary glomerulonephritis in Australia and New Zealand since 1963.

Outcomes of end-stage renal failure secondary to anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis in Australia and New Zealand – a multi-centre registry study (Bose B, Johnson DW, Badve S, Hawley C)
This national registry is looking at dialysis and kidney transplant outcomes in all patients treated for end-stage renal failure secondary to ANCA-associated vasculitis disease in Australia and New Zealand since 1963.

Outcomes of end-stage renal failure secondary to IgA nephropathy in Australia and New Zealand – a multi-centre registry study (Bose B, Johnson DW, Badve S, Hawley C)
This national registry is looking at dialysis and kidney transplant outcomes in all patients treated for end-stage renal failure secondary to IgA nephropathy in Australia and New Zealand since 1963.

Results of a national survey of Australian and New Zealand Renal nurses: Opinions on the content and effects of clinical practice guidelines for chronic kidney disease (Johnson DW)
This national survey of renal nurses in Australia and New Zealand evaluated their opinions regarding the clinical value and usefulness of best practice clinical guidelines for patients with chronic kidney disease.

Hepatitis C Study (Bose B, Johnson DW, Hawley C, Badve S)
This multicentre registry study examined the effect of dialysis modality on the survival of end-stage kidney disease patients with chronic hepatitis C infection.

Consumer involvement in topic and outcome selection in the development of clinical practice guidelines (Johnson DW)
This qualitative study examined the value of involving patients in decisions about what clinical areas should be covered by best practice clinical guidelines under development.

An open-label, multicentre, randomised, 3-arm study to investigate the comparative efficacy and safety of intravenous ferric carboxymaltose (Ferinject® High- and Low-dosage Regimens) versus oral iron for the treatment of iron deficiency anaemia in subjects with non-dialysis-dependent chronic kidney disease (Mudge DW, Van Eps CL, Johnson DW, Campbell S, Isbel N, Hawley CM, Bali V)
This industry-sponsored randomised controlled trial is investigating the safety and effectiveness of a new form of intravenous iron supplement to correct iron-deficiency anaemia in patients with chronic kidney disease not yet on dialysis.

A systematic review of steroid therapy in patients with chronic kidney disease due to IgA nephropathy (Johnson DW)
This Cochrane systematic review evaluated the effects of steroid therapy versus other treatments on clinical outcomes in patients with chronic kidney disease due to IgA nephropathy.

To investigate the effect of a low versus moderate sodium diet on BO, CV risk, QOL and salt taste preference in patients with moderate CKD.

Prepare Study: patient satisfaction survey with care provided in the Low Clearance Clinic (Best J, Bonner A)
The aim of this study is to determine if people who are approaching End Stage Kidney Disease and have been transitioned into the Low Clearance Clinic are more satisfied with the ‘new’ streamlined service provided at the Princess Alexandra Hospital Nephrology Outpatients Department.

Other Research
Enhancing erythropoietin therapy in ischaemia-reperfusion therapy in the heart and kidney (Gobe G, Johnson D, West M, Brown L, Vesey D, Bennett N, Diwan V, Cowin G, Goligorsky M (international))
This project aims to investigate the effects of erythropoietin in reducing heart and kidney injury following disconnection of blood supply in animal models of kidney disease and heart attacks.
Mechanisms of cytoprotection by erythropoietin in the hypoxia/ischaemia-injured neonatal brain (Yamada M, Gobe G, Colditz P, Johnson D)
This project aims to investigate the effects of erythropoietin in reducing heart and kidney injury following disconnection of blood supply to the brain in neonatal animal models of low oxygen brain injury.

Cadmium toxicity to proximal tubular epithelium of the kidney: roles of inflammation and mitochondrial dysfunction (Corbier M, Gobe G, Bennett N, Vesey D, Satarug S, Roy S)
This international collaboration with Thai collaborators seeks to determine the role of environmental cadmium contamination in mediating chronic kidney disease using in vitro models.

Does oxidative stress contribute to renal cell aging and chronic kidney disease via dysfunctional mitochondria and can this be modulated by using combined anti-oxidant therapy? (Gobe G, Small D, Coombes J, Johnson D, Roy S)
This project aims to determine the role of anti-oxidant treatments in preventing kidney aging and pathology.

Understanding the resistance of renal cell carcinoma to therapies (Morais C, Gobe G, Ng KL, Johnson D, Rajandram R, Oliver K)
This project aims to determine the mechanisms of resistance of kidney cancers to chemotherapy agents.

Protease-activated receptor-2 and renal carcinogenesis (Vesey D, Fairlie D, Gobe G, Johnson D)
This project aims to determine the role a molecule called PAR-2 in mediating progressive kidney scarring and failure using cultured human kidney cells.

This biomarker discovery project seeks to determine key proteins in blood or urine which accurately identify patients at increased risk of progressing to end-stage kidney disease.

Src regulated protease activated signalling pathway in hematogenous metastasis, using kidney cancer as an example (Hooper J, Gobe G, Johnson D, Hill M, Lopez-Otin D, Quigley S)
This project aims to describe this novel pathway and modulate its activation with the aim of stopping metastases.

Awards and Prizes
Megan Rossi
• Best Oral presentation, 16th International congress on nutrition and metabolism in renal disease, Hawaii
• University of Queensland UNIQUEST Finalist

Major Grants and Financial Support
Total NHMRC funding received: $1,317,731
Competitive funding received from other sources: $464,941

National and International Presentations
Professor David Johnson
• Peritonitis in Australia and New Zealand,” Australian and New Zealand Peritoneal Dialysis Academy, Sydney
• “Peritoneal dialysis-associated infection workshop,” Australian and New Zealand Peritoneal Dialysis Academy, Sydney
• “baLANZ trial,” Home Dialysis Symposium, Sydney
• “Glucose sparing peritoneal dialysis regimens,” European Renal Association – European Dialysis and Transplant Association Meeting, Paris
• “Collaborative research programs in peritoneal dialysis,” International Society of Peritoneal Dialysis Congress, Kuala Lumpur, Malaysia
• “Results of the baLANZ trial,” International Society of Peritoneal Dialysis Congress, Kuala Lumpur, Malaysia
• “Debate: Biocompatible fluids have proven benefits for residual renal function, peritoneal membrane and survival,” International Society of Peritoneal Dialysis Congress, Kuala Lumpur, Malaysia
• “Biocompatible PD solutions: Implications for clinical practice,” International Society of Peritoneal Dialysis Congress, Kuala Lumpur, Malaysia
• “The role of biocompatible fluids in peritoneal dialysis,” Ontario Renal Network Opening Plenary Lecture, Toronto, Canada
• “Peritonitis in Australia,” City Wide Rounds, Toronto, Canada
• “Do biocompatible fluids benefit PD patients,” Grand Rounds, Ottawa, Canada
• “Cardiovascular risk in chronic kidney disease,” MSD General practice webinar

Megan Rossi
• 16th International congress on nutrition and metabolism in renal disease, Hawaii
Centre for Liver Disease Research

The mission of the Centre for Liver Disease Research is to develop a centre of excellence in hepatology in order to identify novel pathogenic mediators / mechanisms driving chronic liver injury and to develop specific strategies to monitor and improve the outcome of treatment for patients with liver disease.

Regardless of their aetiology, chronic liver diseases share a common pathological mechanism, liver-injury stimulated fibrosis. Progressive fibrosis can lead to cirrhosis, liver failure and hepatocellular cancer. Basic biomedical research has provided solutions for many clinical problems in liver disease. However, new biomarkers to identify at-risk patients and new therapies to prevent and treat progressive fibrosis and the complications of chronic liver disease are urgently required.

The cornerstone of the Centre’s research program is the integration of scientific and clinical research projects in order to rapidly translate scientific outcomes into clinical practice to benefit the health of the community affected by liver disease.

Professor Elizabeth Powell is an Eminent Staff Specialist in Hepatology at the Princess Alexandra Hospital and Director of the Centre for Liver Disease Research, The University of Queensland.

Professor Elizabeth Powell
Director

Associate Professor Andrew Clouston
Deputy Director

Dr Kate Irvine
Laboratory Head

Research Activities

**Examining heterogeneity of fibrosis patterns in nonalcoholic steatohepatitis** (Powell E, Clouston A, Skoien R, Horsfall L, Irvine K)

**Monocytes/macrophages in chronic liver diseases** (Powell E, Clouston A, Irvine K, Melino M, Gadd V, Walker G)

**iDILIC Study – The Pharmacogenetics of Drug Induced Liver Injury Monocytes/ macrophages in chronic liver diseases** (Powell E, Horsfall L)

**Carbohydrate-deficient Transferrin as a biomarker of alcohol consumption in chronic liver disease** (Powell E, Fagan K, Irvine K)

**Characterising the ascites microbiome** (Powell E, Fagan K, Irvine K)

**Preclinical transplant models to dissect the immunological mechanisms of transplant rejection to improve patient outcome through new therapies to prevent and treat graft-versus-host disease** (GVHD) (Clouston A)

**Hepatitis B viral integration** (Clouston A)
Regenerative changes in Hepatitis C (Clouston A)

Fatty liver disease (Clouston A)

Invited member of study group for Liver Pathology with members from Europe, USA, Canada, UK (Clouston A)

The role of the Wnt pathway in liver regeneration and disease (Irvine K, Powell E, Clouston A)

Molecular characterisation of the ductular reaction in human chronic liver disease of different etiologies (Irvine K, Powell E, Clouston A)

Peripheral blood biomarkers in recent onset Type 1 Diabetes patients and at-risk relatives; inflammatory functions of Wnt proteins in macrophages (Irvine K)

Peripheral blood biomarkers in recent onset Type 1 Diabetes patients and at-risk relatives (Irvine K)

Inflammasome priming, anti-microbial effects of Zinc, HDAC inhibitors as anti-inflammatory agents (Irvine K)

Peripheral blood biomarkers of feline diabetes (Irvine K)

Awards and Prizes

Dr Kevin Fagan
- Young Investigator Award – Finalist, Gastroenterological Society of Queensland

Victoria Gadd
- Young Investigator Award, Basic Science Research Presentation, Gastroenterological Society of Queensland

Dr Kate Irvine
- Pauline Hall ALA Research Fellowship, ALA
- UQ Faculty of Health Sciences International Strategy Committee travel award, UQ
- Australian Society for Medical Research, Senior Researcher Award – Finalist, ASMR

Major Grants and Financial Support

Total NHMRC funding received: $253,928
Other competitive funding: $75,000
Funding from other sources: $47,500
The Centre for Online Health (COH) had a very productive year on all fronts, covering its unique role in research, teaching and telehealth service provision. Research themes broadened to include paediatrics, adult and residential aged care. A diverse range of research projects generated special focus areas including critical care, home telehealth, primary health care, Indigenous health and specialist geriatric support within nursing homes.

The COH maintained responsibility for two major telehealth operations - the Queensland Telepaediatric Service (QTS) and the PA Telehealth Centre, which was officially launched at the Princess Alexandra Hospital in November 2012. The QTS has delivered over 15,000 consultations in 37 paediatric specialty areas. The PA Telehealth Centre was developed in collaboration with Queensland Health and the Commonwealth Government. The COH has partnerships within UQ in “Telehealth @ UQ”, “RES-e-CARE”, and the Telerehabilitation Research Unit at St. Lucia.

Publications and presentations in 2012 included a total of 21 peer-reviewed papers, two abstracts, two books, three book chapters, a total of 26 conference presentations, and a textbook on Telemedicine and Dermatology, a joint initiative of the Dermatology Research Centre (Professor Peter Soyer) and the COH (Associate Professor Anthony Smith). The COH led the scientific program committee for the International Global Telehealth conference held in Sydney in November 2012.

Telehealth is a key strategy to help overcome the logistical challenges associated with health service delivery. The emerging investments in the national broadband infrastructure in Australia and the recently introduced Commonwealth (Medicare) funding for video consultations are creating many exciting opportunities for the COH to contribute to the development of telehealth in Australia.

Professor Len Gray
Director

Research Activities

Telepaediatrics – establishment, coordination and evaluation of telemedicine services delivered through Children's Health Services, Queensland Health (Smith, AC)
The Queensland Telepaediatric Service provides the foundation for the centre’s research into service delivery models of health care delivery for children and their families in rural and regional areas of Queensland. During 2012, RCH COH delivered over 15,000 consultations. A similar model has been contracted for the PA Telehealth Centre.

Evaluation of a novel health screening service for children in a remote Indigenous community (Smith AC, Armfield NR, Scuffham P)
The aim is to examine the feasibility of a novel health screening service and to obtain scientific evidence to demonstrate feasibility, clinical usefulness and cost-effectiveness. The screening program formally commenced in 2009. A longitudinal study is underway to examine clinical utilization, health service benefits and factors which influence organisational uptake.

A randomized controlled trial to evaluate paediatric critical care telemedicine in Queensland (Smith AC, Coulthard M, Slater A, Armfield NR)
This three year study involves a randomised controlled trial to investigate the efficacy and economics of paediatric critical care telemedicine with selected regional Queensland hospitals. Four sites are currently being established. All equipment has been built and tested ready for deployment. Ethics has been approved by the appropriate committees.

Using conversational computer technology to improve diabetes management: A randomised controlled trial (Oldenburg B, Courtney M, Friedman R, Wootton R, Ash S, Smith AC)
The aim of this study was to evaluate the cost-effectiveness of a telehealth service for patients with diabetes. Telephone linked Care (TLC) is a system used to share information between patients and clinicians. A study which evaluated the feasibility of this system in regional Queensland was completed in 2012.
Health-e-REGIONS (Smith AC, Gray L)
The Health e-REGIONS Project aims to establish and evaluate a prototype for the provision of specialist telehealth services in the Western Downs region of Queensland. The first phase (scoping study) was completed in 2012. Funding of $1.4m was awarded in December 2012 for a comprehensive two year project to implement and evaluate the telehealth strategy.

Telepaediatric Palliative Care Research Project - Phase 2 (Smith AC)
This long-standing project involves the development and evaluation of a range of telehealth services designed for patients and families receiving long-term and/or palliative care. The majority of the services involve consultations and clinical support in the home setting. Four papers were published during 2012 describing the effectiveness of the program from a clinical and efficacy perspective.

A telehealth coordination service for the nursing home: Needs Assessment and Proof of concept (Gray LC, Smith AC, Edirippulige S)
This project explored the interactions between specialists and residents of a large Brisbane residential aged care facility, to estimate the potential to substitute some encounters with a telehealth solution. In phase 2, several specialty consultations were trialled using telemedicine solutions. This work, concluded in early 2012, led to RES-e-CARE and a large NHMRC evaluation.

Move it to improve it (MitiiTM) is an internet based multi-modal training program comprising upper-limb and cognitive training within the context of meaningful physical activity. It requires no specialist or costly equipment and can be accessed in the client’s home at their convenience.

The development, delivery, promotion and evaluation of a clinical telehealth educational and training programs for clinicians (Smith AC, Armfield NR, Edirippulige S, Gray L)
This project represents a significant contribution to the development, delivery, promotion and evaluation of a clinical telehealth education and training program for clinicians. The aim of the project is to develop a CPD course in clinical telehealth; a UQ Grad Certificate course in Clinical Telehealth and an Elective for undergraduate students.

Major Grants and Financial Support

<table>
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<th>Source of Funding</th>
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National and International Presentations

Dr Nigel Armfield
- 17th Congress of the Federation of Asian and Oceania Perinatal Societies (FAOPS) and the 16th Annual Congress of the Perinatal Society of Australia and New Zealand (PSANZ)
- 4th Annual National Telemedicine Summit, Sydney
- Global Telehealth Conference, Sydney

Natalie Bradford
- Telemedicine and Palliative Care, SIOP (International Society of Pediatric Oncology) Congress Meeting
- Honour Society of Nursing, Sigma Theta Tau International 23rd International Nursing Research Congress, Brisbane
- ANZCHOG (Australia & New Zealand Children’s Haematology Oncology Group), Gold Coast
- 2nd International Conference on Global Telehealth (GT2012)
Professor Len Gray
- 4th Annual National Telemedicine Summit 2012, Sydney
- Amgen Australia Nephrology Scientific Symposium 2012, Melbourne
- Information Technology in Aged Care 2012, Melbourne
- The Royal Australian and New Zealand College of Psychiatrists 2012 Congress, Hobart
- Canadian interRAI Conference, Vancouver BC, Canada
- National Medicines Symposium (NMS), Sydney
- The Ontario Telemedicine Network (OTN) education program for health professionals throughout Ontario, Ontario, Canada
- iNEAC (InterRAI Network of Excellence in Acute Care), Waterloo, Australia
- International Psychogeriatric Association International Meeting, Cairns
- Statewide Rehabilitation Clinical Network -Telerehabilitation Forum, Adelaide
- Global Telehealth Conference, Sydney
- Australian Association of Gerontology National Conference, Brisbane
- Statewide Diabetes Clinical Network Forum, Brisbane
- 45th Australian Association of Gerontology National Conference, Brisbane

Dr Nancye Peel
- ANZSGM Conference, Sydney
- Transition Care: Improving Outcomes for Older People Conference, Sydney
- iNEAC (InterRAI Network of Excellence in Acute Care), Waterloo, Ontario, Canada
- International Society for Pharmacoeconomics and Outcomes Research, Taipei, Taiwan
- RBWH Health Care Symposium, Brisbane
- 4th National Transition Care Forum, Brisbane
- GSA 65th Annual Scientific Meeting, San Diego, California
- 45th Australian Association of Gerontology National Conference, Brisbane

Associate Professor Anthony Smith
- New Zealand Telehealth Forum, Auckland, New Zealand
- Staff Forum, Whangarei District Hospital, Northland, New Zealand
- HIC 2012, Sydney
- The Journey: Towards Excellence in Children’s Healthcare, Sydney, Australia
- eHealth Conference, Kerman University of Medical Sciences, Iran
- 2012 SHRS Postgraduate Research Conference - Kinecting Technology with Research Symposium, Brisbane
- Global Telehealth Conference, Sydney
Centres for Health Research 2012 Annual Research Report

The University of Queensland Centre for Research in Geriatric Medicine (CRGM) experienced a very productive year in 2012, with many important projects reaching their conclusion and several substantial new grants secured to begin a new generation of research. The CRGM developed quality indicators for care of older people in hospital and in post-acute home care, and demonstrated that assessments of people conducted using a web-based assessment without any interaction with the patient can be as precise as the more time consuming in-person specialist consultations.

A five year NHMRC Program Grant conducted in partnership with the University of Sydney and Flinders University was concluded in 2012. In partnership with the Centre for Online Health and Uniesta, a commercial enterprise called “RES-e-CARE” was developed to deliver specialist care to aged care homes through telehealth. Participation within interRAI continued, which develops assessment systems for older people internationally. The CRGM published 21 papers in peer-reviewed journals, compared to 13 in 2011. A large NHMRC project grant was secured to investigate the efficacy of the RES-e-CARE telehealth model. The Centre is a member of the first NHMRC Partnership Centre (in Dementia Care) which has a 5 year budget of $25m. In partnership with the Centre for Online Health and the Telerehabilitation Research Unit at St. Lucia, over $4.5m in funds was secured for telehealth demonstrations.

A strength of CRGM work has been the growing partnership with colleagues within UQ, including a collaboration badged “Telehealth @ UQ”, resulting in several major grant achievements. This enormous achievement has required the sustained effort and great skills of a very committed team that constitutes CRGM.

Professor Len Gray
Director

Associate Professor Paul Varghese
Director, Geriatric and Rehabilitation Unit, PAH

Research Activities

Developing a quality framework for the care of older patients in the Emergency Department (Burkeett E, Gray L, Jones R, Martin-Khan M)

Survival and health outcomes of elderly have been shown to improve with high quality care. The project aims to develop a set of QIs that are both relevant and feasible in the Australian emergency department setting.

Promoting activity for frail aged in post-acute hospital settings: a randomised controlled trial of accelerometry (Gray L, Peel N, Cameron I, Karunanithi M, Paul S, Crotty M, Kurrle S)

The aim of this project was to evaluate the efficacy of the use of accelerometry in clinical practice to promote activity in older people in post-acute hospital settings. Milestones achieved in 2012 include: the completion of the trial intervention at 3 sites; the completion of follow-up and data entry December 2012.

A new prescribing technology in older patients (Scott I, Martin J, Gray L)

The aim is to develop and validate framework for appropriate prescribing in older adults. Milestones achieved in 2012 include: building a large clinical database derived from the interRAI acute care system; recoding medications according to ATC codes; and analysis of current patterns of drug use in older patients in acute care.
A telehealth coordination service for the nursing home: Needs Assessment and Proof of concept (Gray LC, Smith AC, Edirippulige S)
This project explored the interactions between specialists and residents of a large Brisbane residential aged care facility, to estimate the potential to substitute some encounters with a telehealth solution. In phase 2, several specialty consultations were trialled using telemedicine solutions. This work, concluded in early 2012, led to RES-e-CARE and a large NHMRC evaluation.

Major Grants and Financial Support

Total NHMRC funding received: $230,727.94
Competitive funding received from other sources: $297,706.74
Funding received from other sources: $91,872.96

National and International Presentations

Professor Len Gray
- 4th Annual National Telemedicine Summit 2012, Sydney
- Amgen Australia Nephrology Scientific Symposium 2012, Melbourne
- Information Technology in Aged Care 2012, Melbourne
- The Royal Australian and New Zealand College of Psychiatrists 2012 Congress, Hobart
- Canadian interRAI Conference, Vancouver BC, Canada
- National Medicines Symposium (NMS), Sydney
- The Ontario Telemedicine Network (OTN) education program for health professionals throughout Ontario, Ontario, Canada
- interRAI (InterRAI Network of Excellence in Acute Care), Waterloo, Ontario, Canada
- International Psychogeriatric Association International Meeting, Cairns
- Statewide Rehabilitation Clinical Network -Telerehabilitation Forum, Adelaide
- Global Telehealth Conference, Sydney
- Australian Association of Gerontology National Conference, Brisbane
- Statewide Diabetes Clinical Network Forum, Brisbane
- 45th Australian Association of Gerontology National Conference, Brisbane

Dr Ruth Hubbard
- Medical Grand Rounds, PAH, Brisbane
- British Geriatrics Society Conference, Llandudno, Australia and New Zealand Society of Geriatric Medicine Conference, Sydney
- Royal Australian College of Physicians, Future Directions in Health Congress CCRE/ Clinical Research Forum, PAH, Brisbane

Dr Melinda Martin-Khan
- interRAI Summer Program for International Research (inSPIRe), Waterloo, Canada
- interRAI Network of Excellence in Acute Care (iNEAC), Waterloo, Ontario, Canada
- National Dementia Research Forum, Canberra.
- 45th Australian Association of Gerontology National Conference, Brisbane

Dr Nancye Peel
- ANZSGM Conference, Sydney
- Transition Care: Improving Outcomes for Older People Conference, Sydney
- iNEAC (InterRAI Network of Excellence in Acute Care), Waterloo, Ontario, Canada
- International Society for Pharmacoeconomics and Outcomes Research, Taipei, Taiwan
- RBWH Health Care Symposium, Brisbane
- 4th National Transition Care Forum, Brisbane
- GSA 65th Annual Scientific Meeting, San Diego, California
- 45th Australian Association of Gerontology National Conference, Brisbane
The Clinical Pharmacology Department sits within the Princess Alexandra Hospital Division of Medicine with responsibility for clinical pharmacology activities, which include drug utilisation evaluation, participation in various drug committee activities, drug safety monitoring, therapeutic drug monitoring and other quality use of medicine activities. The Department also maintains an expanded tacrolimus monitoring service for transplant centres throughout the State, has a long history of involvement in the development and provision of drug assays for immunosuppressant drugs, and is a national and international reference centre.

The Department has an active research program. Collaborations arising from this facility include research in the fields of transplantation, haematology, renal medicine, gastroenterology, clinical toxicology, endocrinology, hypertension, cardiology, pharmacy and industry. The Department has a collaborative research agreement with Waters Corporation to investigate measurement of endogenous steroids utilising the latest mass spectrometry technology. After the development of a LC-MS method in the laboratory, collaborative studies have been conducted on hepcidin, a novel iron biomarker. Numerous drug utilisation and pharmacovigilance studies have been performed in collaboration with the Pharmacy Department at the Princess Alexandra Hospital.

Associate Professor Peter Pillans
Director

**Research Activities**

- **Optimizing detection of curable hypertension by the development of a highly accurate method for measuring aldosterone concentrations in human blood and urine** (Taylor PJ, Stowasser M, Gordon RD)

- **Improved patient outcomes through dosage individualisation of the newer immunosuppressant drugs** (Staatz CE, Tett SE, Taylor PJ, Johnson DW, Lynch SV)

- **The role of hepcidin in iron regulation** (Hall S, Taylor PJ, Fletcher L, Bird R, Saal R, Mudge DW, Crawford D)

- **Development of LC-MS assays of clinical significance and utility** (in collaboration with Waters Corporation) (Taylor P, Cooper D)

- **Population pharmacokinetics of paracetamol in overdose** (Iedema JM, Isbister GK, Pillans P)

- **Antibiotic choice in infective exacerbations of COPD** (McKeen M, Pillans P, Fanning M, Scott I)

- **Use of an algorithm to rationalise medication use in elderly inpatients** (McKeen M, Pillans P, Finch A, Scott I)

L-R: Brenda Tai, Paul Taylor, Associate Professor Peter Pillans, Mike Franklin
2012 was a very successful and productive year for The University of Queensland Dermatology Research Centre (DRC). The laboratory-based research side of the DRC, under the lead of Dr Tarl Prow, continued to grow with the introduction of four new staff members. Of particular note was the awarding of an Australian Research Council Discovery Project grant and an F & E Bauer Research Grant, demonstrating the competitive quality of the Centre’s research. The Centre was also successful in obtaining its second and third Cancer Council Queensland Project Grant with lead collaborator Associate Professor Nigel McMillan and Dr Fiona Simpson. As a result of the Centre’s research program, three provisional patents were applied for in 2012, with strong potential for improving drug delivery to the skin, and improving the methodology and outcomes of biopsy collection for patients.

The incorporation of the Teledermatology Service into standard clinical practise at the Princess Alexandra Hospital was a significant achievement for 2012. The greatest utilisation of the service has been by doctors practising in rural centres which lack access to onsite dermatology consultations. In 2012 there were over 120 referrals from numerous hospitals across the state. Partnerships with several pharmaceutical companies have resulted in the planning of numerous clinical trials, with the commencement of a phase 1 trial in 2012.

A move into the Translational Research Institute (TRI) in early 2013 will provide the Centre with access to new world-class research facilities, as well as enhancing contact with other research groups and enabling existing collaborations to flourish and new collaborations to be forged.

Professor H Peter Soyer
Professor and Chair, Dermatology Research Centre,
The University of Queensland School of Medicine, Translational Research Institute
Director, Dermatology Department, Princess Alexandra Hospital

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**Research Activities**

**Clinical Trials**

**Actinic Keratosis Surveillance Feasibility Study** (Wheller L - UQ DRC, Soyer HP - UQ DRC, Neale R - QIMR, Gilmore S - UQ DRC, Saunders N - UQ Di, Lambie D - PAH Dept of Pathology)

To determine: the feasibility of Fotofinder and Reflectance Confocal Microscopy to document natural history of AK lesions, to identify RCM characteristics that predict progression from AK to SCC; the correlation between degree of photodamage to skin and incidence of AK’s to SCC; whether genetic, immunological and environmental factors influence the incidence and/or natural history of AKs.

**A study of risk factors for squamous cell skin cancer** (Frazer I - UQ Di, Soyer HP - UQ DRC, Lambie D - PAH Dept of Pathology)

To test whether virus infection on the skin contributes to the risk of developing skin cancer and does the ability to mount an immune response also contribute. 200 participants will be recruited from dermatology/renal outpatients at the PAH and The Prince Charles Hospital.

**Immunohistochemistry and other molecular analysis of phenotypically characterised equivocal melanocytic proliferations study** (Soyer HP - UQ DRC, Gabrielli B - UQ Di, Pavey S - UQ Di, Sturm R - UQ IMB, Smithers BM - PAH Melanoma Unit, Lambie D - PAH Dept of Pathology, Douglas N - PAH Dermatology Dept, Banan P - UQ DRC)

To validate potential novel bio-markers unique to various phenotypically characterized naevi and stages of melanoma progression. Dermoscopy, reflectance confocal microscopy, IHC, microarray, and sequencing data will be used to define which changes in the naevus appearance observed on the patient are directly related to which genetic alterations; and how these predict for progression to melanoma.
**PNI Data Registry** (Queensland Perineural Research Group)
Establishment of an aregistry of management, outcomes and surveillance of patients diagnosed with skin cancer complicated by perineural invasion in Queensland. To identify outcomes relating to perineural invasion in BCC, SCC, keratoacanthoma (KA) and melanoma. The registry will run for a minimum of 5 years looking to extend to 10 years.

**Naevus surveillance using total body photography and dermoscopy** (Smithers BM - PAH Melanoma Unit, Green A - QIMR)
To fully characterise the elements and timing of morphological changes associated with the metamorphosis from naevus to melanoma, and identify characteristics associated with the normal life cycle of a naevus. Full body photography with individual dermoscopic naevus images will be recorded and the morphology classified and described.

**Pigmentation genotypes (MC1R) and phenotypic correlations with dermoscopic naevus types and distribution** (Sturm R - UQ IMB, Duffy D - QIMR, Smithers BM - PAH Melanoma Unit)
To examine the relationship between genes, the dermoscopic characteristics of melanocytic naevi and melanoma risk. To characterise genes that influence the probability of an individual carrying particular naevus subclasses. Full body photography with individual dermoscopic naevus images will be recorded and morphology classified and described.

**Targeted redox therapy for photoaging prevention and treatment** (Prow T - UQ DRC, Roberts M - UQ SOM)
To target natural reduction/oxidation (redox) therapies to the deeper layers of the skin to treat photoaging. A novel means of physically enhancing the topical delivery of redox therapies with microneedles (MN) and elongate microparticles (EMP) will be investigated.

**Characterisation of striae distensae with confocal microscopy** (Gilmore S - UQ DRC, Rolfe H - PAH Dermatology Dept)
To determine the confocal microscopic features of established striae distensae, and then use the confocal microscope to detect dermal subclinical changes in early disease. Two papers have been published in the Australasian Journal of Dermatology and presented in the 38th Annual Meeting of the Society for Cutaneous Ultrastructure Research.

**Genome-wide investigation of the phenotypic underpinnings of psoriasis** (Gilmore S - UQ DRC, Saunders N - UQ DI)
This study aims to uncover regulatory elements, perhaps micro RNAs or other non-coding RNAs, that play significant roles in the inherited predisposition to psoriasis. Both normal-looking skin from psoriatic subjects and normal-looking skin from normal controls will be examined, using either conventional micro-array chips or the newer deep sequencing technology.

**Topical application of minimally invasive, novel microbiopsy device** (Prow T - UQ DRC, Lin L - UQ DRC, Soyer HP - UQ DRC)
To test the validity of a new minimally invasive, microbiopsy device. A novel microbiopsy platform has been developed that enables repeated, minimally invasive tissue sampling without the need of local anaesthesia, while providing enough tissue for molecular detection of disease and live-cell assays.

**Other Research**

**Development of nanoparticle mucosal delivery systems for siRNA-based cancer therapies** (McMillan N - Griffith University, Prow T - UQ DRC)
To develop microfilament nanoparticles (MNP) and define their delivery profile and ability to deliver E6/E7 siRNA and reduce the expression of these cervical cancer causing genes in our mouse model.

**Awards and Prizes**

**Professor H Peter Soyer**
- NRMRC Practitioner Fellowship

**Major Grants and Financial Support**

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National and International Presentations

Lin Li
- Conjoint 3rd Australasian Wound & Tissue Repair Society Meeting and 9th Australasian Society for Dermatology Research Meeting, Sydney

Professor Tarl Prow
- Drug Delivery Australia 2012 Annual Scientific Meeting, Melbourne
- The University of Queensland Annual Skin Cancer Conference, Queenstown, New Zealand
- 39th Annual Meeting & Exposition of the Controlled Release Society, Quebec City, Canada
- Conjoint 3rd Australasian Wound & Tissue Repair Society Meeting and 9th Australasian Society for Dermatology Research Meeting, Sydney
- Nanodermatology Society, 2012 Annual Scientific Meeting, San Diego, California, USA

Professor H Peter Soyer
- Mirvac Health Check, Brisbane
- Certificate in Advanced Dermoscopy and Dermal Imaging, Brisbane
- COSA 2012 Melanoma Trainees Weekend, Brisbane
- XVIII Dermatology Journey Clinica Alemana, Santiago, Chile
- 21st European Academy of Dermatology and Venereology Congress, Prague, Czech Republic
- 33rd Australasian Dermatopathology Society Annual Conference, Melbourne
- Dermoscopy for Skin Cancer Detection Workshop, Mount Isa
- International Short Course on Dermoscopy, Graz, Austria
- The University of Queensland Annual Skin Cancer Conference, Queenstown, New Zealand
- Redcliffe Hospital Grand Round, Brisbane
- 3rd World Congress of Dermoscopy, Brisbane
- Royal Australasian College of Surgeons Annual Scientific Congress, Kuala Lumpur, Malaysia
- GONAD Meeting, Cairns
- PolyVision Seminar and Workshop as part of the Pacific Albinism Project, Brisbane
- 70th Annual Meeting of the American Academy of Dermatology, San Diego, California, USA
Diabetes and Endocrinology Department

The Department is developing on the strengths of Professor Ken Ho and Associate Professor Warrick Inder, with a stronger endocrine focus to its research. Professor Ho is leading a programme investigating the regulation and action of brown adipose tissue with a view to it playing an important role in the regulation of body weight. Associate Professor Inder has established his research team investigating optimal steroid replacement and the effects of opioids on pituitary function.

Dr Paul Lee, Professor Ho’s postdoctoral fellow, was awarded a prestigious NHMRC Early Career Fellowship to undertake postdoctoral studies at the USA National Institute of Health with Dr Francesco Celi on brown adipose tissue in humans. Dr Viral Chikani, Advanced Trainee in Endocrinology, commenced postgraduate doctoral studies on the regulation of anaerobic capacity by growth hormone with Professor Ken Ho and Dr Ross Cuneo, supported by a Clinical Fellowship from the PA Research Support Scheme.

In pursuing the principles behind Diamantina Health Partners, the Department has strong relationships with Professors John Prins and David McIntyre of the Mater Medical Research Institute. Clinically, Dr Trisha O’Moore-Sullivan is broaching both the Mater Public and Princess Alexandra Hospital departments.

Associate Professor Anthony Russell continued his successful collaborations with Professor Efron (QUT) and Professor Malik (Manchester, UK) investigating novel ophthalmic markers of peripheral neuropathy. An NHMRC project grant has been submitted with Professor Brian Oldenburg (Monash) to pursue the telephone linked care project and ongoing work with Professor Claire Jackson in the NHMRC funded CRE, investigating models of care at the primary/secondary interface for chronic disease.

Associate Professor Anthony Russell
Director

Research Activities

Basic Research

**Epigenetic regulation of 11βHSD1** (Jang C, Inder W, Obeyesekere V, Saffery R)
Publication Dec 2012 Clinical Epigenetics. Ongoing project with data analysis still occurring investigation the regulation of 11βHSD1 gene expression via promoter methylation in people with and without diabetes.

**The effect of opioid analgesics on pituitary function** (Inder WJ, Martin J and Thomas F)

**Oestrogens and the metabolic process: regulatory interaction with the GH-IGF-system in health and disease** (Ho K)
Oestrogens play a key role in fat metabolism. Oestrogen-based drugs are among the most widely used medications and their use may predispose to the development of fatty liver disease and obesity. This project investigates the metabolic consequences of oestrogen-based treatment to advocate and develop safer treatments.

**Effect of Vitamin C supplementation on high molecular weight adiponectin** (Rose F, Whitehead J, Prins J, Russell A)
Recruitment is ongoing.
The physiology of brown adipose tissue in adult humans (Ho K)
This project sets out to discover how to stimulate the growth and activity of brown fat in humans. Brown fat burns energy in contrast to white (normal) fat which stores energy. This project develops the activation of brown fat as a novel approach for the treatment of obesity.

Genetic testing for pheochromocytoma using genome-wide sequencing (Duncan E, Stowasser M, Inder W, Clifton-Bligh R)
Investigation of a new technique for genetic testing of patients with phaeochromocytoma which is cheaper and faster compared to current techniques. Abstract submitted to US Endocrine Society meeting 2013.

Cardiovascular examination and echocardiography in prolactinoma patients taking cabergoline (Caputo C, Inder W and Prior D)

Amiodarone-induced thyrotoxicosis (Patel N, Inder W, Kaye G and Sullivan C)
Retrospective study investigating treatment and outcome of this potentially serious complication of amiodarone therapy. Abstract submitted to US Endocrine Society meeting and Cardiac Society of Australia and New Zealand meeting 2013.

Clinical Trials
The effect of continuous subcutaneous hydrocortisone infusion pump therapy in Addison’s disease on subjective health status: a double-blind, randomised, placebo-controlled clinical trial (Inder WJ, Torpy D and Gagliardi L)
Investigator-initiated trial looking at a new delivery system for hydrocortisone in Addison’s disease. In collaboration with the Royal Adelaide Hospital. Recruitment on target, aiming for study close end of 2013.

Investigation of novel ophthalmic markers of diabetic peripheral neuropathy (Efron N, Malik R, Pritchard N, Edward K, Russell A)
JDRF funded longitudinal study.

Assessment of computer-based self-management systems in Type 2 diabetes – TLC (Oldenburg B, Bird D, Russell A)

Implementation of new models of diabetes care across the primary/secondary interface (Jackson C, Russell A (T3))
Other Research

Audit of role of osteoporosis nurse in treatment initiation following minimal trauma fracture (Bell K, Cooke C, Duncan E and Inder W)

Utilisation of a Day 5 metyrapone short synacthen test for assessment of the hypothalamic pituitary adrenal axis post pituitary surgery (Cuneo R, Duncan E, Russell A)
Recruitment of patients continues to determine whether patients require steroids on discharge from hospital rather than the traditional retesting interval of 6 weeks post-surgery.

SCALE study. Assessment of liraglutide for weight loss in obese non-diabetic individuals (Prins J)
Recruitment completed.

Observational programme to assess somatuline autogel in the treatment of acromegaly (Russell A)
Recruitment completed.

Major Grants and Financial Support

Total NHMRC funding received: $189,602
Competitive funding received from other sources: $150,000
Total funding received from commercially sponsored studies: $64,995

National and International Presentations

Professor Ken Ho
- Sex Steroid Modulation of GH Action, and Pharmacological-induced neuroendocrine dysfunction, XVI International Neuroendocrinology Symposium, Bela Horizonte, Brazil
- Clinical significance of metabolic perturbations in acromegaly, International Congress in Endocrinology, Satellite Symposium, Florence
- GH Deficiency in Adults, Meet the Professor, The Endocrine Society, Houston, USA
- Two Years Advances in Growth Hormone Research, Growth Hormone and IGF-I Congress, Munich, Germany
- Management of GH deficiency in adults, New Zealand Endocrine Society, Wellington, New Zealand
- Brown adipose tissue in humans, International Weissman Symposium, Melbourne

Professor David McIntyre
- Sex Steroid Modulation of GH Action, and Pharmacological-induced neuroendocrine dysfunction, XVI International Neuroendocrinology Symposium, Bela Horizonte, Brazil
- Diabetes, a world wide challenge. European Commission meeting, Brussels. Session moderator for Section 4: “Challenges of diabetes/obesity in pregnant women”
- Global approach to GDM, Problems and Promise, International Association of Diabetes in Pregnancy Study Groups, Chennai
- Controversies in Obstetrics Gynecology and Infertility Barcelona, Spain
- IADPSG approach to diagnosis of gestational diabetes Ochsner Medical Group Hospitals New Orleans, Louisiana
- Update on DAFNE in Australia. Victorian and Tasmanian Endocrine Group, Torquay, Victoria
- Oral agents and new injectables for Type 2 diabetes Australian Diabetes Society GP Education Programme, Brisbane

Associate Professor Anthony Russell
- Sanofi Aventis Diabetes Educator Partnership Meeting, Brisbane
- MSD Diabetes and Bone, National Conference, Other effects of glucose lowering drugs Bone, Liver and Heart, Sydney
Diamantina Institute

The University of Queensland Diamantina Institute (UQDI) enjoyed a wonderfully productive year in 2012 in terms of research discovery, progress and awards. UQDI continues to expand its collaborative force and high calibre recruitments. In association with the Queensland Brain Institute (QBI), UQDI has further strengthened research ties with China following the opening in Shanghai of a joint laboratory in 2011, dedicated to exploring how genes influence brain development and function. The Australian Cancer Research Foundation (ACRF) invested $2M into a targeted cancer and treatment through an individualised oncology care program at UQDI.

The Institute is undergoing a period of expansion as part of its move to the Translational Research Institute and is strengthening its ties with the Princess Alexandra Hospital, non-government agencies and patient advocacy groups to continue to ensure a clinically relevant research program which maximises upon the opportunities afforded by being part of TRI.

Professor Matthew Brown
Director

Research Activities

UQDI researchers continue to work closely with clinicians and patients in their key areas of research into immune-mediated disease and cancers. They have identified novel diagnostic, therapeutic and preventative discoveries in chronic disease. New diagnostic therapies are being developed to help with the early diagnosis and accurate treatment of acute myeloid leukaemia (AML) and skin cancers. A new research centre in head and neck cancers was opened in 2012 with funding from Atlantic Philanthropies, UQ, and Queensland Health. Researchers are working with industry to bring to clinical trial the world’s first vaccine against rheumatoid arthritis. Other UQDI research has this year led to trials of new therapies for another common immune-mediated arthritis, ankylosing spondylitis. UQDI researchers aim to have a global impact in health outcomes and this is evidenced by the continuing application of preventative methods and vaccine application against cervical cancer in developing countries.

Awards and Prizes

Dr Antje Blumenthal
- Australian Infectious Diseases Research Centre Collaborative Grant 2012; Blumenthal, Sweet, Engwerda
- Balzan Research Fellowship (2010 – 2015)
- University of Queensland Postdoctoral Research Fellowship (2010 – 2012)

Professor Matt Brown
- NHMRC Senior Principal Research Fellowship. $794,860 (2012 – 2016)

Dr Liliana Endo-Munoz
- UniQuest Pathfinder Grant 2012: Validation in vivo of two novel therapeutic targets for osteosarcoma. $47,130
- UQ Early Career Researcher Grant 2012 (Elizabeth Maisie Handy Bequest): Identifying the inherent factors that drive the spread of osteosarcoma tumour cells to the lungs. $40,000
Dr Brian Gabrielli

Dr Tony Kenna
- Arthritis Australia Project Grant
- Arthritis Australia Heald Fellowship

Dr Graham Leggatt
- The University of Queensland New Staff Research Start-Up Fund 2012. Wells JW. Characterisation of T-cell immunity in Squamous Cell Carcinoma
- UniQuest Pty Ltd 2012. Leggatt GR, Wells JW. Development of therapeutic HPV polynucleotide vaccine
- NHMRC Development Grant 2012. Frazer IH, Leggatt GR, Wells JW, Dutton J, Bridge JA. Optimizing a vaccine for HPV immunotherapy

Dr Stephen Mattarollo
- Victorian Cancer Agency – Early Career Seed Grant. $49,970
- Australian Society of Immunology - International Travel Award. $3,000
- CASS Foundation Travel Grant ($AUD 3,500)

Associate Professor Nicholas Saunders
- Cancer Council Queensland Senior Research Fellowship. $700,000 (2012 – 2016)
- Cancer Council Queensland. Dysregulated H3K27me3 contributes to differentiation-insensitivity and squamous cell carcinoma development. $200,000 (2012 – 2013)
- UniQuest Pathfinder grant. Validation, in vivo, of two novel therapeutic targets for osteosarcoma. Endo-Munoz L, Saunders N. $47,130

Dr Emma Hamilton-Williams
- NHMRC Project Grant. Dr E Hamilton-Williams. A Novel Role for the IL-2 Pathway In Type-1-Diabetes. $527,200

Dr Michelle Hill
- Australian Research Council (ARC) Future Fellowship

Dr Fiona Simpson
- UQ Trailblazer Competition Grand Final Winner 2012
- Cancer Council Queensland Cancer Research Project Grants. The role of epidermal growth factor receptor trafficking in tumour progression and patient therapy resistance

Dr Gethin Thomas
- Queensland Government’s Smart Futures Co-Investments Fund (2012) - A Unique Queensland Collaborative Facility (TIA – QLD Node) for Translating University Life Sciences Discoveries into High Value Products for Commercialization. $2,000,000
- Rebecca Cooper Foundation (2012) - Assessment of novel treatments in ankylosing spondylitis. $20,000

Professor Ranjeny Thomas
- Finalist GlaxoSmithKline Awards for Research Excellence

Dr Jian Yang
- Centenary Institute Lawrence Creative Prize (CILC)

Major Grants and Financial Support

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The Princess Alexandra Hospital Emergency Department is a designated Level 6 Trauma Centre. Around 58,000 patients attend the ED each year with an admission rate of approximately 44%. The research activities of the Emergency Department Research Group noted both below and listed in the publications reflect not only the diverse patient population but also the interests of Emergency Department staff.

Principal Researchers, Senior Staff Specialists Dr Michael Sinnott and Dr Ogilvie Thom, lead the Emergency Department Research Group. In 2012 Dr Rob Eley was appointed to the newly created position of Academic Research Manager, a position funded jointly by The University of Queensland School of Medicine and the Queensland Emergency Medicine Research Fund. The new Academic Research Manager position complements the role of Lyndall Spencer, Nurse Researcher, a position which was created in 2007. Rob and Lyndell are career researchers who, in addition to undertaking their own research, support the clinical staff in their research endeavours.

All the key research indicators, such as publications and presentations, funding submissions and grants awarded, were exceeded by the Department during the year.

In addition to ongoing research activities with UQ, Griffith University and QUT, and with The Prince Charles, Redcliffe and Townsville Hospitals, the Department’s research collaborations were extended in 2012 to include the University of Melbourne.

Dr Phillip Kay
Director

Dr Michael Sinnott and Dr Ogilvie Thom
Head of Research Program

### Research Activities

#### Clinical Trials

**ARISE** (Lawrence S)
The purpose of this multi-centre randomised controlled trial is to determine if a treatment plan known as “Early Goal Directed Therapy” is different from standard treatment for patients with severe sepsis.

**NICER** (Thom O)
Conducted at the Emergency Departments, The Prince Charles Hospital, Redcliffe Hospital and Princess Alexandra Hospital, this study seeks to assess the impact of the use of bedside Doppler ultrasound (the USCOM cardiac output monitor) in resuscitating critically unwell patients.

#### Other Research

**Bed Unit Day** (Sinnott M, Spencer L)
The project which is in collaboration with researchers from QUT is developing a model to follow patients throughout their hospital journey with the objective of addressing access block.

**CRASH and CRASH+** (Staib A, Collier J)
These projects are investigating the ability of typical fluids and cellular components used in haemorrhagic shock in ED departments to improve oxygen delivery to vital organs following severe haemorrhage. A follow up study (Septis and Trauma) funded by NH&MRC will start in 2013.
DECIMALATE (Sinnott M, Eley R)
This new study is collaborating with the University of Melbourne to determine whether comprehension of decimals and leading zeros is a barrier to interpretation of clinical chemistry results among Emergency Department staff.

Did Not Wait (Melton N)
The project which was completed in 2012 as a Master's degree evaluated the prevalence and characteristics of did not wait patients in Southeast Queensland Emergency Departments.

DORM II (Page C)
This observational study is an extension to the DORM RCT which demonstrated the effectiveness of Droperidol at sedation as Midazolam but with significantly less adverse effects. The new study is evaluating a protocol to give Droperidol in a set dose and route.

EASI (Thom O)
Investigated the bacterial colonization and blood contamination on ultrasound probes in the Emergency Departments and Intensive Care Units across numerous hospitals in South East Queensland.

EDQI (Burkett E)
The aim of this study is to improve the safety and efficiency of discharge of frail older patients from the ED, in an effort to reduce hospital access block and improve the quality of care for this complex patient group.

MoLIE (Isoardi J)
This study proposes to learn what factors influence emergency medicine intern note taking through the use of semi structured interviews. Interviews with senior medical staff identified their expectations about intern documentation.

SETS (Sinnott M)
Following positive outcome data from a research project performed within the department in 2009 The Skin Emergency Telemedicine Service was rolled out as standard practise within the PAH Emergency Department. This audit seeks to determine the effectiveness and efficiency of the service.

Major Grants and Financial Support

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National and International Presentations

Pauline Calleja
- The 10th International Conference for Emergency Nursing, the College of Emergency Nursing Australasia, Hobart

James Hughes
- The 10th International Conference for Emergency Nursing, the College of Emergency Nursing Australasia, Hobart

Nicola Melton
- The 10th International Conference for Emergency Nursing, the College of Emergency Nursing Australasia, Hobart

Dr Darren Powrie
- Australasian College for Emergency Medicine 29th Annual Scientific Meeting. Emergency Medicine Australasia, Hobart

Ramon Shaban
- The 10th International Conference for Emergency Nursing, the College of Emergency Nursing Australasia, Hobart

Dr Michael Sinnott
- Association of periOperative Registered Nurses, New Orleans
- Australasian Association of Bioethics & Health Law Conference. Australasian Association of Bioethics & Health Law, Auckland

Dr Andrew Staib
- Australasian College for Emergency Medicine 29th Annual Scientific Meeting, Emergency Medicine Australasia, Hobart

Sarah Weber
- The 10th International Conference for Emergency Nursing. the College of Emergency Nursing Australasia Hobart, Tasmania
- Australasian Trauma Society Conference, Perth

L-R (Back): Peter Fugelli (EDIS Data Manager), James Collier (Co-Director ED), James Hughes (Clinical Nurse Coordinator), Rob Eley (Academic Research Manager)
L-R (Front): Lyndall Spencer (Nurse Researcher), Leanne Trenning (Nurse Educator), Sue Galbraith (Clinical Nurse)
Endocrine Hypertension Research Centre

The Endocrine Hypertension Research Centre (EHRC), based at Princess Alexandra and Greenslopes Hospitals within The University of Queensland Department of Medicine, continued to conduct internationally acclaimed research into the causes and management of various forms of hypertension (high blood pressure), including curable and specifically treatable varieties.

In what was a highly productive year for the Centre, Dr Eduardo Pimenta was awarded a PhD for his thesis assessing the importance of salt in the development of adverse cardiovascular and renal effects in patients with primary aldosteronism, and a scholarship was awarded by the PA Foundation to Chun Hui (Brenda) Tai to enable her to commence PhD studies within the Centre in 2013.

In 2012, Dr Martin Wolley was recruited as Hypertension Unit Registrar and Clinical Research Fellow. Dr Wolley completed advanced training in Nephrology in 2012 and will commence PhD studies within the Centre in 2013.

The Centre strengthened its collaboration with research partners in the UK, Dr Kevin O’Shaughnessy, University of Cambridge and Dr Mark Glover, University of Nottingham, through exploration of the genetics of primary aldosteronism and familial hypertension with hyperkalaemia (Gordon’s syndrome, named after the Centre’s founder).

Professor Michael Stowasser delivered the Gaston Bauer Lecturer for 2012 at the Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand. With over 15 journal articles published and several invited talks given at major international meetings, the Centre’s profile continues to flourish.

Professor Michael Stowasser
Emeritus Professor Richard Gordon
Co-Directors

Research Activities

• Elucidating genetic mechanisms responsible for familial hyperaldosteronism type II
• The BP GUIDE study – assessing the value of using central BP measurements to guide treatment of hypertension
• Definition of ambulatory blood pressure targets for diagnosis and treatment of hypertension in relation to clinic blood pressure
• Elucidating genetic mechanisms responsible for familial hyperaldosteronism type II and Gordon’s syndrome
• Genetics of Gordon’s syndrome; Genetics of primary aldosteronism
• Genetics of Gordon’s syndrome and of thiazide-induced hyponatraemia
• Developing a highly accurate method of measuring aldosterone in clinical samples using tandem mass spectrometry

Awards and Prizes

Professor Michael Stowasser
• Gaston Bauer Lecturer for 2012, Cardiac Society of Australia and New Zealand

Major Grants and Financial Support

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Gastroenterology and Hepatology Department

In recent years the demand for endoscopic procedures has far exceeded capacity at the Princess Alexandra Hospital. The Gastroenterology & Hepatology Department has taken up the challenge through initiatives such as the introduction of a number of new services (FibroscanR, 13C breath testing), and the creation of several new positions including the roles of Inflammatory Bowel Disease (IBD) Nurse role and the Pre Admission Nurse.

The Department obtained new equipment allowing significant improvement in diagnostic capabilities including FibroscanR for the non-invasive detection of hepatic fibrosis; ManoscanTM to assess pressure and motor function of the oesophagus, and Infra-Red Isotope Analyser for the non-invasive determination of organ function including pancreas, liver, gastric emptying.

The Aged Referral Project was undertaken following a retrospective review of the increasing waiting times relating to the Gastroenterology Outpatient Department and the Endoscopy Unit. As a result of this project, a total of 1434 referrals were reviewed, and 738 referrals were removed from the waitlist. Alternate funding was sought for three pilot projects: Hepatocellular Carcinoma (HCC) Nurse, Viral Hepatitis Nurse, and the development of a Hepatology clinic database. These projects were initiated in response to an increasing number of cases of HCC seen with chronic viral hepatitis at the Princess Alexandra Hospital Hepatology clinics.

Through the outstanding commitment and engagement of medical, nursing and other staff, the Department truly made a difference for patients with regard to the provision of services.

Professor Gerald Holtmann
Director

Awards and Prizes

Professor Elizabeth Powell

- NHMRC Practitioner Fellowship 2011 – 2015
- PAH Foundation Research Grant. Powell EE, Ho, K, Martin, J. Establishment of primary human liver cell isolation: a necessary model to understand hepatic disease

National and International Presentations

Poster Presentation
- Digestive Disease Week 2012

Oral Presentation
- Does urgency categorisation for endoscopic outpatient procedures work? Surgery Connect Initiative at Medical Grand Rounds and the Inaugural Department of Gastroenterology and Hepatology Research Forum April 2012
Haematology Department

The Princess Alexandra Hospital Haematology Department provides a very high level of integrated multidisciplinary care for all adult blood diseases. The Department’s services include autologous stem cell transplantation and chemotherapy, with chemotherapy increasingly being provided to patients in the outpatient setting. A dedicated Amyloid Multi-disciplinary Clinic, one of only two in Australia, is now firmly established at PAH, providing patient care and undertaking active research projects.

Achievement in research remained outstanding as judged by the recognition of awards for Department staff, 25 publications in peer-reviewed international journals, and more than $550,000 in funding grants. Grants were awarded by the PA Foundation, Leukaemia Foundation of Queensland, NHMRC, Queensland Cancer Council and SERTF for chemokines in chronic lymphocytic leukemia (CLL), clinical trial in amyloidosis, enabling grant for ALLG Tissue Bank, catheter-related infection in cancer patients, mass spectrometry in amyloidosis, respectively. In addition, there was continuing active research projects in CLL, minimal residual disease in acute myeloid leukemia (AML), and lymphomas. The international standing of the department was further underlined with visits by five international blood diseases experts in 2012.

Professor Devinder Gill
Director

Research Activities

Research remains an integral part of improving patient care for the Department, ranging from laboratory based translational research to clinical trials. There are two PhD Fellows (Dr Louise Seymour and Dr Colme Keene), one Postdoctoral Fellow (Dr Catherine Cheung), and two Research Scientists (Melissa Burgess and Lyle McMillen). The clinical trials encompass numerous international, national and investigator-initiated, Phase I-IV clinical trials which aim to provide access to new and best available treatment options for patients with blood diseases. In 2012 there were 75 active clinical trials and lab based studies under way in the Department.

Major Grants and Financial Support

| Total NHMRC funding: | $145,740 |
| Other competitive funding: | $630,974 |

National and International Presentations

- “Early switch to Nilotinib does not overcome the adverse outcome for CML patients failing to achieve early molecular response on Imatinib, despite excellent overall outcomes in the TIDEL II Trial”, ASH 2012
- “Aplastic anaemia: establishment of a new international registry”, HAA 2012
- “The Biology of CLL”, Haematology and Oncology Targeted Therapies (HOTT) Symposium, Sydney
- “Lymphoma Update”, Annual ASH highlights, Brisbane
- “Enabling Translational Research: The ALLG Tissue Bank”, Cancer Collaborative Group Symposium, Brisbane
- “Velcade in the Treatment of Myeloma”, Brisbane Haematologists Meeting
The Princess Alexandra Hospital Intensive Care Unit demonstrated another successful year in the critical care research program. Research highlights for 2012 were leading the international multi-centre ADRENAL trial (ADjunctive coRticosteroid treatment in critically ill Patients with Septic Shock), which is the largest steroid in sepsis trial ever undertaken, and successfully completing and publishing the binational multi-centre randomised controlled trial of statins in severe sepsis.

The Intensive Care Unit continues its ongoing involvement with the Australia and New Zealand Intensive Care Society (ANZIC) Clinical Trials Group (CTG). This is evident by continuing involvement in the POLAR-RCT: Prophylactic Hypothermia Trial to Lessen Traumatic Brain Injury – Randomised Controlled Trial, and in the multi-centre TRANSFUSE study, testing the effect of the freshest available red blood cell (RBC) unit compared to standard practice, on mortality in critically ill patients who require RBC transfusion. The Unit also continues to contribute to a number of large scale international pharmaceutical trials.

The Unit has been glad to welcome an increasing amount of Allied Health involvement in research projects, specifically from the Physiotherapy and Social Work disciplines. The strengths of the research program include the multi-disciplinary nature of the team, as well as the broad reach of research questions across the entire continuum of critical illness. This level of productivity and success is only possible because of the enthusiasm and dedication of the medical, nursing and allied health staff of the Unit. The group is looking forward to another productive year.

Professor Bala Venkatesh
Director of Research
Professor Leanne Aitken
Chair in Critical Care Nursing

### Research Activities

**Point Prevalence** (Joyce C)
A systematic snapshot of current practice. ANZIC CTG.

**TRANSFUSE Study** (Kruger P)
Multi-centred RCT looking at the effects of standard issue red blood cell units on mortality compared to freshest available red blood cell units. ANZIC CTG.

**InRoads Improving Analgesia Delirium and Sedation Management for Critically Ill Patients** (Aitken L, Mitchell M)
Testing a complex intervention for realising optimal management of analgesia, delirium and sedation.

**ADRENAL** – A randomized blinded placebo controlled trial of hydrocortisone in critically ill patients with septic shock (Venkatesh B)
Adjunctive corticosteroid treatment in critically ill patients with septic shock; B Venkatesh is the Chief Investigator of this NHMRC funded international multicenter trial. This study will include 3800 intensive Care patients who have septic shock. They will be randomized to receive either hydrocortisone 200mg or placebo daily for 7 days as a continuous intravenous infusion while in Intensive Care.

**HECTIC** (Aitken L, Abbey J)
Health and economic outcomes of critical trauma intensive care patients
Clinical Trials

**POLAR-RCT - The Prophylactic hypOthermia trial to Lessen traumatic brain injury – Randomised Controlled Trial**  
(Joyce C, Nunnink L, Burkett E, Fuentes H)  
The prophylactic hypothermia trial to lessen traumatic brain injury is an AZICS CTG study. The trial will investigate whether early cooling of patients with severe traumatic brain injury is associated with better outcomes. The study also is a collaboration between the Intensive Care Unit, the Emergency Department and Queensland Ambulance Service.

**The SPARK study**  
(Kruger P)  
A Phase II randomised blinded controlled Canadian Clinical Trials group study looking at the effect of f continuous infusion of furosemide in critically ill patients with early acute kidney injury, when titrated to the physiological parameter of urine output in early AKI on the primary outcome of progression in severity of kidney injury from early AKI.

**Cytofab**  
(Venkatesh B)  
A multicentre, randomised, double-blind, placebo-controlled Phase IIb study to compare the efficacy and safety of two dosing regimes of intravenous infusions of CytoFAB™ in adult patients with severe sepsis and / or septic shock. This international Pharmacological study is looking into the use of an investigational product on patients with severe sepsis and septic shock in ICU.

Other Research

**LOGIC - Long term cognitive impairment and delirium in intensive care**  
(Mitchell, M)  
The study seeks to determine the incidence of delirium in ICU patients and the cognition level of ICU patients at 3 and 6 months post ICU discharge. So far, 12 patients have been enrolled and the psychological follow-ups of consented patients have commenced.

**RSVP: Intravascular device administration sets: Replacement after Standard Versus Prolonged use**  
(Rickard C)  
The aim of the study is to compare the impact of intravascular device (IVD) administration set (AS) replacement at 4 days versus 7 days on infective, clinical and cost outcomes.

**Delirium prediction tool**  
This multi-centre prospective cohort study (Netherlands lead site) aims to develop and validate an early prediction model (E-Predeliric) for delirium in ICU. This will be achieved through the collection of important delirium risk factors on admission to ICU as well as collection of risk factors of the PRE-DELIRIC model at 24 hours after ICU admission.

**TEAMS: Trial of Early Ambulation and Mobilisation**  
This is a Physiotherapy-led trial investigating early mobilisation in ICU patients. The instigators here at the PA are Marc Nickels and Lisa Watson. The PA is working alongside other institutions nationally on this endeavour. A retrospective activity analysis and staff survey have been completed at the PAH.

**Intensive Care Anxiety and Emotional Recovery (icaRe)**  
(Castillo M, Aitken L, Cooke M)  
The ICare study is looking at the emotional recovery of ICU survivors up to six months after ICU discharge. One hundred and Forty One patients are enrolled in the study.

Awards and Prizes

**Dr Marion Mitchell**  
- Life Membership Australian College of Critical Care Nurses. In recognition of outstanding achievement and contribution to critical care nursing

**Sharon Wetzig**  
- Safety and Quality Prizes Session ACCCN
Major Grants and Financial Support
Other competitive funding: $1,068,656

National and International Presentations

Associate Professor Peter Kruger
• 32nd International Symposium on Intensive Care and Emergency Medicine. Topics included 1) Statins in Sepsis, 2) Glitazones in ICU, 3) Lipids in Critical Illness and 4) Caffeine in the ICU, Brussels

• Asian Ventilation Forum. Topics included 1) Weaning from mechanical ventilation, 2) CPR in the ICU, 3) Overview of mechanical ventilation, 4) The ANZICS CTG experience, Singapore

• ANZICS/ ACCN National Scientific Meeting, Topics included 1) Statins in sepsis, 2) When does an answer become a question, Adelaide

• Queensland Audit of Surgical Mortality - Pathophysiology of deteriorating patients, Brisbane

• ANZICS Clinical Trials Group: STATInS Trial results - extended results, Noosa

Dr Marion Mitchell
• 5x 3hr Lectures to post-graduate Griffith University Masters students

• 2x 2hr Lectures on Research to Bachelor of Nursing Students (year 1)

• Complementary and Alternative Medicine and the Effects on the Critically Ill. 37th Annual ANZICS/ACCCN Intensive Care Annual Scientific Meeting, Adelaide

Professor Bala Venkatesh
• Steroids in Septic Shock: do we need another trial? Indian Society of Critical Care Medicine, Bangalore Chapter

• Steroids in Septic shock: do we need another trial? Christian Medical College Hospital, Vellore, India

• Do we need another trial of steroids in sepsis? International Congress of Emergency and Critical Care Medicine, Brussels

• Neuroprotection with ketones. International Congress of Emergency and Critical Care Medicine, Brussels

• Pharmacotherapy with vitamin D. International Congress of Emergency and Critical Care Medicine, Brussels

• ADRENAL trial - Start up meetings Auckland

• The ADRENAL Trial Australia & New Zealand Intensive Care Society - Clinical Trials Group, Noosa

• Interpreting the numbers. College of Intensive Care Medicine, Regional meeting, Byron Bay

• Recent advances in monitoring the critically ill patient. College of Intensive Care Medicine, Annual ICU update meeting, Melbourne

• Tissue Oxygenation - a historical review College of Intensive Care Medicine, Annual Scientific Meeting, Melbourne

Sharon Wetzig
• Measuring Quality in Intensive Care: Implementation of Nurse Sensitive indicators. PAH International Nurses Day Symposium

• Measuring Ventilator-Associated Pneumonia: Is it worth the effort? 37th ANZIC/ASM annual Scientific Meeting, Adelaide
Internal Medicine and Clinical Epidemiology

The PAH Internal Medicine and Clinical Epidemiology Department had several research highlights in 2012.

The Department participated in two NHMRC funded programs looking at improving quality and safety of care across the primary-secondary care interface with focus on reducing potentially inappropriate polypharmacy in hospitals, residential aged care facilities and general practice.

A lead role was taken by the Department in several research projects relating to key quality and safety issues. These include: more accurate and efficient management algorithms for atypical chest pain, which comprise 10% of all hospital admissions; change in clinical culture, work practices, and patient flows that resulted in more expeditious access to, and egress from, the Emergency Department as reflected in a rise in NEAT (National Emergency Access Target) compliance from 33% to 70% in 12 months; identification of ineffective, harmful or unproven clinical interventions and formulation of disinvestment and reinvestment strategies; validation and dissemination of a drug minimisation guide aimed at reducing potentially inappropriate polypharmacy in older patients; researching and designing systematic approaches to advance care planning for patients with advanced chronic disease; and promoting personalised medicine based on a better understanding of drug pharmacokinetics and toxicity.

In 2012, the Department’s research collaborations continued with Queensland Health’s Clinical Access and Redesign Unit, The University of Queensland and Bond University, Monash University Department of Epidemiology and Preventive Medicine (Melbourne), the RACP Quality and Safety Expert Advisory Group and the Australian Institute for Healthcare Innovation (Sydney), and Canada’s McMaster University.

Associate Professor Ian Scott
Director of Internal Medicine and Clinical Epidemiology

Associate Professor Jennifer Martin
Head, Southern Clinical School, The University of Queensland

Research Activities

Clinical Trials

TEMPERANCE (Scott IA, Gray L, Martin J, Mitchell C, McKean M, Iedema J, Hubbard D)
Research program aimed at validating, implementing and evaluating effects of a drug minimisation guide in multiple hospitals and residential aged care facilities aimed at reducing potentially inappropriate polypharmacy in older patients.

Chest pain risk stratification algorithm (Scott IA, Staib A, Collier J, Garrahy P, Aggarwal L)
The retrospective audit of 130 consecutive patients has informed the design of a new chest pain risk stratification algorithm aimed at identifying and discharging low risk patients directly from ED and classifying remaining patients into intermediate and high risk categories associated with recommendations around test selection, use of telemetry beds, and post-discharge risk management.
Other Research

From wooden spoon to top of the class – a case study in improving NEAT culture and compliance (Sullivan C, Flores J, Staib A, Collier J, Scott IA, Aggarwal L)
Mixed-methods study of change in clinical culture, work practices and patient flows across an entire tertiary hospital that resulted in an increase in National Emergency Access target (NEAT) compliance from 33% to 80% over 12 months.

Unplanned readmission to general medicine service (Shohag H, Ahmed M, Scott IA)
Case-control study of unplanned readmission to a general medicine service in a tertiary hospital aimed at identifying factors contributing to potentially preventable readmissions

Polypharmacy and de-prescribing (Scott IA, Jackson C, Mitchell G, Foster M, Hollingsworth S, Anderson K, Freeman C)
Literature reviews of knowledge, attitudes and skills of general practitioners, medical specialists, clinical pharmacists and patients pertaining to potentially inappropriate polypharmacy and de-prescribing

Review of clinical guidelines (Scott IA, Guyatt GH)
Review of limitations of, and proposed solutions for, current clinical practice guideline recommendations that conflict, go beyond or lag behind robust evidence, are based on low quality evidence, fail to reconcile benefits with harm, focus on single disease and ignore co-morbidities, are insensitive to patient preferences and ignore implementation challenges.

Select most appropriate and rational test or treatment (SMARTT) program (Scott IA, Hewson K, Howell T, Mundy L, Rowland J, Fennessey P, Elshaug A)
Review of commonly performed clinical interventions for which there is little or no evidence of effectiveness and which comprise targets for disinvestment strategies.

Sunset Year Program (Scott IA, Reymond L, Mitchell G, Daly M)
The Sunset Year Program seeks to design and implement throughout hospitals and residential care facilities systematic approaches to advance care planning for patients with advanced chronic disease or frailty.

Closing evidence-practice gaps (Scott IA, Glasziou P, Hoffman T, del Mar C, Runciman B)
Literature review of strategies for promoting evidence uptake and closing evidence-practice gaps at the level of individual clinicians and healthcare organisations

Optimising outcome measurement (Evans S, Wolfe R, Gabbe B, Reid C, Pilcher D, McDonald S, Scott IA, Khan F, Cameron P)
Research program aimed at optimising outcome measurement of different patient populations using registry data which can be used to inform quality improvement interventions and cost-effectiveness studies within hospitals and facilitate benchmarking amongst different providers.

Major program of research that will explore new whole-of-system approaches to improving patient care and safety including how to reinvent health care, what needs to change to improve outcomes, and how advances in medical research and practice, which can too often be ignored, can be taken up and implemented.

Value-added care for physicians (Scott IA, Phelps G, Lane G, Gow P, Rubin G)
Research program aimed at identifying specific quality and safety issues relevant to the clinical practice of specialist physicians and providing resources and tools that enable physicians to maximise cost-efficient value of care provided

Clinically relevant assays (Duley J, Norris R, Florin T, Martin JH)
Development of clinically relevant assays for measurements of thiopurine concentrations (as part of the Centre of Excellence).

Therapeutic drug monitoring to individualise breast cancer dosing (Martin, Walpole, Shaw, Mackavanagh, Kirkpatrick, Taylor, Dimeski, Franklin)
(Kindly supported by PAH Foundation and PAH Cancer Collaborative)
Therapeutics for brain cancer (Martin JH, Rose, S, Fay M, Head R, Boyd A, Jeffree L CSIRO partnership)
High throughput platforms to improve therapeutics for brain cancer
(NHMRC application 2013)

Using Bayesian methodologies to improve efficacy and reduce toxicity including resistance with old antimicrobials
(Martin JH, Green B, Coombes I, Barras M, Paterson D)

Awards and Prizes
Dr Rebecca Sander
• Runner-up prize for best scientific oral presentation
  Assessment of outcome and management of patients hospitalised with acute chest pain of indeterminate origin

Major Grants and Financial Support

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<tr>
<th>Source</th>
<th>Amount</th>
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<tr>
<td>NHMRC funding to research programs in which department personnel participate:</td>
<td>$1 million</td>
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<tr>
<td>Australian Cancer Research Foundation funding to research programs in which department personnel participate:</td>
<td>$2 million</td>
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National and International Presentations

Associate Professor Ian Scott
• The role of general physicians in outpatient care.
  Presentation to Queensland Statewide General Medicine Clinical Services Network Forum, Brisbane

• Using evidence to improve quality of care. Presentation to Evidence-based Medicine Teaching Workshop, Bond University, Gold Coast

• The new era of comparative effectiveness research: what does it mean for physician practice? Presentation to RACP Annual Congress, Brisbane

• Minimising inappropriate polypharmacy in older patients using a 10-step algorithm. National Medicines Symposium, Sydney

• Pre-operative risk assessment. RACP College Lecture Series, Brisbane

• New models of care for MAPUs. Presentation to Metro South HHS NEAT/MEDAI/NEST Forum, Brisbane

• Medical Assessment and Planning Units – new horizons. Presentation IMSANZ Annual Scientific Meeting, Queenstown NZ

• Skinner T, Scott IA, Martin JN. Misdiagnosis in elderly populations: a systematic review. Poster presentation at IMSANZ Annual Scientific Meeting, Queenstown NZ and Metro North Health Symposium

• Meaningful measurement of individual physician performance. Presentation to AHHA Quantum Leap 2012 Conference, Sydney

• Pay for performance – does it improve hospital care? Presentation to AHHA Quantum Leap 2012 Conference, Sydney

• Anticoagulation 2012. Presentation to Weighty Matters Conference, Toowoomba

• Ethical dimensions to clinical guidelines and conflicts of interest. Presentation to Therapeutic Guidelines Interference Forum, Melbourne

• Acute care medicine – what are the next frontiers? Presentation to Queensland Statewide General Medicine Clinical Services Network Forum, Brisbane

• Using data to drive clinical practice improvement. Presentation to Queensland Health NEAT Redesign Forum, Brisbane

• The role of comparative effectiveness research in HTA. Health Technology Assessment Conference, Sydney

• Using data to drive practice change and improve patient outcomes. Presentation to CRE Patient Safety Conference, Melbourne
The University of Queensland’s Lung & Allergy Research Centre (LARC), in collaboration with Princess Alexandra Hospital’s Respiratory and Sleep Medicine Department, is focused on research to better understand asthma and other chronic pulmonary diseases, with particular interests in immune function and how this is important for protection against respiratory viral infections and allergies. More information is included at Respiratory and Sleep Medicine Department.

The year was highly productive for all concerned, with success in attracting research funding and multiple publications in peer-reviewed journals and book chapters. Key achievements included: investigating the importance of antigen presenting dendritic cells in asthma; documentation of variations in the patterns of pollen allergy across different climatic regions of Australia; and describing the key determinants of host defence against viral infections in chronic respiratory disease, with particular emphasis on the function of plasmacytoid dendritic cells and innate interferon production. During the year, major progress was made in defining immune responses to rhinoviruses, the viruses responsible for the common cold and frequent triggers for asthma. Immune responses are different in men and women and also vary with age. In people with asthma we have defined multiple abnormalities in anti-viral interferon signalling, and believe that these play a central role in the vulnerability of people with asthma to exacerbations triggered by rhinovirus infections. Other studies are defining the importance of allergy to subtropical grass pollens.

Professor John Upham
Professor of Respiratory Medicine, School of Medicine, The University of Queensland
Department of Respiratory Medicine, Princess Alexandra Hospital

**Research Activities**

**Clinical Trials**
- A randomised controlled trial of low dose azithromycin in patients with poorly controlled asthma (NHMRC funded)
- Immune responses to influenza vaccination in asthma and other chronic lung diseases

**Other Research**
- IgE cross-reactivity between a temperate grass pollen allergen mix and subtropical pollen extracts of Bahia and Bermuda grasses
- Environmental monitoring of subtropical grass pollen allergens that contribute to hay fever and asthma
- Development of an allergen-specific blood test for Bahia grass pollen allergy
The Medical Oncology Department, within the Princess Alexandra Hospital Division of Cancer Services, is a tertiary-referral centre for cancer. Most of the Department’s clinics operate in a multi-disciplinary format with the Departments of Radiation Oncology, Surgical Services, and Allied Health Services.

The Department has an active clinical trials program primarily in breast cancer, melanoma, gastroesophageal cancer, colorectal cancer, head and neck cancer, pancreatic cancer, lung cancer and germ cell tumours.

Participation in clinical trials is conducted under the auspices of national and international study groups such as the Australasian Gastro-Intestinal Trials Group, the Australian New Zealand Germ Cell Trials Group (now incorporated with Australian and New Zealand Urology and Prostate), the Australian New Zealand Breast Cancer Trials Group, the Eastern Cooperative Oncology Group, the National Surgical Adjuvant Breast and Bowel Group, the European Organisation for Research and Treatment of Cancer, and the Australian Sarcoma Study Group. Involvement in these groups has provided the Department with access to and experience with the latest developments in treatment regimens for sarcoma patients.

Associate Professor Damien B Thomson  
Director  
Adam Stoneley  
Research Unit Coordinator, Division of Cancer Services  
Dr Euan Walpole  
Medical Director of Cancer Services

Research Activities

The PAH Medical Oncology Department also has a significant history in the conduct of industry-initiated research trials allowing the hospital, and ultimately the patient, access to potential cutting-edge developments in cancer therapy. The Department has a considerable infrastructure of clinical trial research staff and shares research nurses and data managers with the PAH Haematology and Radiation Oncology Departments.

Comparing the efficacy of panitumumab in combination with chemotherapy to the efficacy of chemotherapy alone in patients with previously treated metastatic colorectal cancer (Walpole E)  
A randomised, multicentre phase III study.

An open label study of abiraterone acetate in subjects with metastatic castration-resistant prostate cancer who have progressed after taxane-based chemotherapy (McCaffrey E)

REGISTER (Walpole E)  
A multicentre phase II study of risk evaluation in gist with selective therapy escalation for response.

CHALLENGE (Walpole E)  
A phase III study of the impact of a physical activity program on disease-free survival in patients with high risk stage II or stage III colon cancer: a randomised controlled trial.

Brivanib alaninate (BMS-582664) in combination with Cetuximab (Erbitux®) versus placebo in combination with Cetuximab (Erbitux®) in patients previously treated with combination chemotherapy for metastatic colorectal carcinoma (Joubert W)  
A Phase III randomized study.

ChemoCog (Thomson D)  
ALTTO (Atkinson V)
A randomised, multi-centre, open-label, phase III study of adjuvant lapatinib, trastuzumab, their sequence and their combination in patients with Her2/ErbB2 positive primary breast cancer (BIG 2-06).

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 (Walpole E)
Randomised multicenter phase III study in patients with locally advanced adenocarcinoma of the pancreas: Gemcitabine with or without chemoradiotherapy and with or without Erlotinib (EudraCT 2007-001174-81) (Atkinson V)

Accelerated BEP (Thomson D)

EVERSUN (McCaffrey E)

Pharmacokinetics and pharmacodynamics of doxorubicin in children, adolescents and young adults with newly diagnosed osteosarcoma, Ewing family of tumours and Hodgkin Lymphoma (Thomson D)
A multi-institutional cross-discipline non-therapeutic study.

A stratified multi-arm Phase 2 study evaluating the efficacy and safety of LDE225 in patients with advanced/metastatic sarcomas (Joubert W)

ATTACHE (Atkinson V)
A trial of timing of surgery and adjuvant chemotherapy for hepatic metastases from colorectal cancer.

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 (Walpole E)
A 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 (Walpole E)
A multicenter phase III randomized trial.

AVAGLIO (Atkinson V)
A randomized, double blind, placebo controlled, multicenter phase III trial of Bevacizumab, Temozolomide and radiotherapy, followed by Bevacizumab plus Temozolomide versus placebo, Temozolomide and radiotherapy followed by placebo and Temozolomide in patients with newly diagnosed glioblastoma.

COMBI-AD (Thomson D)
A phase III randomized double blind study of Dabrafenib (GSK2118436) in COMBination with Trametinib (GSK1120212) versus two placebos in the ADjuvant treatment of high-risk BRAF V600 mutation-positive melanoma after surgical resection.

Adjuvant immunotherapy with anti-CTLA-4 monoclonal antibody (ipilimumab) versus placebo after complete resection of high-risk Stage III melanoma (Thomson D)
A randomized, double-blind Phase 3 trial of the EORTC Melanoma Group.

Ipilimumab administered at 3 mg/kg vs at 10 mg/kg in subjects with previously treated or untreated unresectable or metastatic melanoma (Atkinson V)
A randomized double-blind phase III study.

BMS-936558 vs dacarbazine in subjects with previously untreated or metastatic melanoma (Atkinson V)
A Phase 3, Randomized, Double-Blind Study.

CASPS (Joubert W)
A Pphase II trial of cediranib in the treatment of patients with alveolar soft part sarcoma.

MAINSAIL (McCaffrey E)
A Phase 3 study to evaluate the efficacy and safety of docetaxel and prednisone with or without lenalidomide in subjects with castrate-resistant prostate cancer (CRPC)

Cabozantinib (XL184) vs. prednisone in metastatic castration-resistant prostate cancer patients who have received prior docetaxel and prior abiraterone or MDV3100 (McCaffrey E)
A phase 3, randomized, double-blind, controlled study.

Cabozantinib (XL184) vs. mitoxantrone plus prednisone in men with previously treated symptomatic castration-resistant prostate cancer (McCaffrey E)
A Phase 3, randomized, double-blind, controlled trial.

Eribulin (Joubert W)
Randomized, open-label, multicenter, phase 3 study to compare the efficacy and safety of eribulin with dacarbazine in subjects with soft tissue sarcoma.
**COMPLETE** (Joubert W)
A Randomised, open label, phase III study of taxane based chemotherapy with lapatinib or trastuzumab as first line therapy for women with HER2/neu positive breast cancer "COMPLETE" (EGF108919).

**APEC** (Walpole E)
An Asia Pacific non-randomized, open-label phase II study evaluating the safety and efficacy of FOLFIRI plus cetuximab (Erbitux) or FOLFOX plus cetuximab in patients with wild-type KRAS status as first-line therapy in subjects with metastatic colorectal cancer (APEC-Study).

**Merck N-Ras** (Atkinson V)
A multicentre, open label, randomized phase II trial of the MEK inhibitor pimasertib or dacarbazine in previously untreated subjects with N-RAS mutated locally advanced or metastatic malignant melanoma.

**PETACC-6** (Walpole E)
Preoperative chemoradiotherapy and postoperative chemotherapy with capecitabine and oxaliplatin vs. capecitabine alone in locally advanced rectal cancer (EORTC protocol 40054-22062).

**Treatment with chemotherapy before and after surgery versus surgery in liver metastases from colorectal cancer** (Walpole E)

**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)** (Walpole E)
A Phase III Randomized, Intergroup, International Trial

**Yondelis** (Joubert W)
A randomized controlled study of yondelis (trabectedin) or dacarbazine for the treatment of advanced liposarcoma or leiomyosarcoma previously treated with an anthracycline and ifosfamide.

**Phase II study of Gemcitabine and nab-paclitaxel for resectable pancreas cancer** (Joubert W)

**Vemurafenib + placebo versus vemurafenib in combination with GDC-0973 In previously untreated BRAFv600-mutation positive patients with unresectable locally advanced or metastatic melanoma** (Atkinson V)
A Phase III, Double-Blind, Placebo-Controlled Study

**Phase I/II Study of BNC105P in Combination with Everolimus or Following Everolimus For Progressive Metastatic Clear Cell Renal Cell Carcinoma Following Prior Tyrosine Kinase Inhibitors** (McCaffrey E)

**SUMMIT-1** (Atkinson V)
A randomized phase 3 study of tasisulam administered as an intravenous infusion on day 1 of a 28-day cycle vs. paclitaxel as second-line treatment in patients with metastatic melanoma.

**RAISE** (Atkinson V)
A randomized, double-blind, multicenter phase 3 study of irinotecan, folinic acid, and 5-fluorouracil (folfoxr) plus ramucirumab or placebo in patients with metastatic colorectal carcinoma progressive during or following first-line combination therapy with bevacizumab, oxaliplatin, and a fluoropyrimidine.

**SOFT** (Atkinson V)
A Phase III Trial Evaluating the Role of Ovarian Function Suppression and the Role of Exemestane as Adjuvant Therapies for Premenopausal Women with Endocrine Responsive Breast Cancer (IBCSG 24-02 / BIG 2-02).

**ICECREAM** (Joubert W)
The irinotecan cetuximab evaluation and the cetuximab response evaluation among patients with G13D mutation. A randomised phase II study of cetuximab alone or in combination with irinotecan in patients with metastatic CRC with either KRAS WT or G13D mutation. AG0112CR.

**IPM3001 / PICASSO III** (Joubert W)
A Phase III multicenter, international, randomized, double-blind, placebo-controlled study of doxorubicin plus palifosfamide-tris vs doxorubicin plus placebo in patients with front-line metastatic soft tissue sarcoma.

**LUX-Head & Neck 2** (McGrath M)
A randomised, double-blind, placebo-controlled, phase III study to evaluate the efficacy and safety of afatinib (BIBW 2992) as adjuvant therapy after chemo-radiotherapy in primary unresected patients with stage III, IVA, or IVB loco-regionally advanced head and neck squamous cell carcinoma.

**PARP** (Thomson D)
A randomized, double-blind, placebo-controlled, phase 2 study evaluating the efficacy of ABT-888 in combination with temozolomide versus temozolomide alone in subjects with metastatic melanoma.

**MEK inhibitor GSK1120212 plus gemcitabine vs. placebo plus gemcitabine in subjects with metastatic pancreatic cancer** (Joubert W)
A Randomized, double-blind placebo-controlled phase II study.
Comparing GSK1120212 to chemotherapy in subjects with advanced or metastatic BRAF V600E/K mutation-positive melanoma (Thomson D)
A phase III randomized, open-label study.

COMBI-D (Thomson D)
A Phase III, randomized, double-blinded study comparing the combination of the BRAF inhibitor, GSK2118436 and the MEK inhibitor, GSK1120212 to each single agent combined with placebo in subjects with advanced (Stage IIIc) or metastatic (Stage IV) BRAF V600E/K mutation-positive melanoma.

EAP BRAF (Atkinson V)
An open-label, multicenter expanded access study of RO5185426 in patients with BRAF V600E mutation – positive metastatic melanoma.

SafeHer (Colosimo M)
A phase III prospective, two-cohort non-randomized, multicenter, multinational, open label study to assess the safety of assisted-and self-administered subcutaneous trastuzumab as adjuvant therapy in patients with operable Her2-positive early breast cancer.

BRIM-3 (Atkinson V)
A multicenter, randomized, double-blinded, controlled, phase III study in previously untreated patients with unresectable Stage IIIc or Stage IV melanoma with V600E-Positive BRAF mutation receiving RO5185426 or Dacarbazine (NO25026).

CSCCS (Porceddu S)
Open-label, uncontrolled, phase II study to evaluate the efficacy and toxicity of single-agent panitumumab in patients with incurable cutaneous squamous cell carcinoma.

A study to determine the activity of SCH 717454 in subjects with osteosarcoma or Ewing’s Sarcoma that has relapsed after standard systemic therapy (NCT00617890) (Joubert W)

Capecitabine +/- bevacizumab as adjuvant treatment of colon cancer (Walpole E)
Multicentre international study.

SCOT (Joubert W)
An international, open-label randomised, two-arm phase III non-inferiority trial investigating a shortened duration of treatment for patients with high-risk stage II/III colorectal cancer. Short Course Oncology Therapy (SCOT).

FOLFOX6m plus SIR-Spheres® versus FOLFOX6m alone as first line treatment in patients with non-resectable liver metastases from primary colorectal carcinoma (Walpole E)
Randomised comparative study.

Understanding the psychosocial sequelae of surviving testicular cancer (Thomson D)

TRIO-012 (McCaffrey E)
A multicentre, multinational, randomised, double blind, phase III study of IMC-1121 plus docetaxel versus placebo plus docetaxel in previously untreated patients with Her2-negative, unresectable, locally recurrent or metastatic breast cancer.

TROG 03.02 (Harvey J)
Adjuvant gastric: a feasibility study to evaluate adjuvant chemoradiotherapy for gastric cancer.

TROG 03.07 (Burmeister B)
Palliative lung: a randomised phase ii study of two regimens of palliative chemoradiation therapy in the management of locally advanced non small cell lung cancer.

TROG 05.01 / POST (Porceddu S)
Post-operative concurrent chemoradiotherapy versus post operative radiotherapy in high-risk cutaneous squamous cell carcinoma of the head and neck.

TROG 06.01 / LGG (Lehman M)
Primary chemotherapy with temozolomide vs radiotherapy in patients with low grade gliomas after stratification for genetic 1p loss: a phase III study.

TROG 07.04 (Porceddu S)
A Phase II study of Cetuximab, Carboplatin and concomitant boost radiotherapy for locally advanced head and neck squamous cell carcinoma.

Unmet needs (Marlton P)
Development and psychometric evaluation of two measures of perceived need: one for young people with cancer; one for carers.
The development of the research profile of Metro South Addiction and Mental Health Services has continued to progress with the integration of a number of partner groups to form the Centre for Neuroscience, Mental Health and Recovery (CNMHR) within Diamantina Health Partners.

This important development links The University of Queensland, Queensland University of Technology, and Griffith University along with Queensland Brain Institute, Queensland Centre for Mental Health Research, Medicare Local, Department of Neurosurgery Princess Alexandra Hospital (PAH), Rehabilitation Services of PAH, and the Alliance, which is the peak body for non-government organisations related to mental health care in Queensland.

The establishment of the CNMHR provides an avenue to link research from the molecular through to clinical service delivery, with this linkage providing access to a broad range of experienced researchers. Over the last 12 months clinical research focused on the area of the impact of involuntary treatment in recovery for those admitted to mental health services within Metro South Hospital and Health Services. Australian Research Council (ARC) funding has enabled progress in evaluating effectiveness of knowledge transfer with respect to evidence based guidelines for managing the physical and oral health needs with those with severe mental health illness and evaluations of service delivery.

Associate Professor David Crompton OAM
Executive Director Metro South Addiction and Mental Health Services
Centre for Neuroscience, Mental Health and Recovery (CNMHR), Diamantina Health Partners

Research Activities

Severe mental illness and physical and oral health
(Partners are Elizabeth Kendall, Steve Kisely, David Crompton, Carolyn Ehrlich, Elizabeth Crowe, Nicolette Frey)
Over the last 12 months an ARC linkage grant has funded research that joins Metro South Mental Health Services, Griffith University and The University of Queensland in a program that focuses on improving the physical and oral health care of those with severe mental health illness. The life expectancy of those with severe mental health illness is reduced by approximately 20 years when compared with the rest of the population. It is recognised that the gains in terms of life expectancy made by the general population are not being translated to those with severe mental illness. In addition the evaluations indicate that the risk of death in those with severe mental illness is much greater than the risk of suicide. The available information indicates that the translation of evidenced based care to those with severe mental health illness with respect to physical health and oral health problems is not being adopted as readily as is occurring with the rest of the community. The ARC funded grant aims to develop an understanding of factors that influencing adoption of evidence based guidelines in this population and to develop strategies that become imbedded in clinical care.
**Evaluation efficacy of Tai chi for treatment of depression and anxiety in those with diabetes, hypertension and obesity**

(Partners are Xin Liu, Luis Vitetta, Karam Kostner, David Crompton, Gail Williams, Alan Lopez, Wendy Brown, Charlie Xue, Tian Oei, Gerard Byrne, Jennifer Martin, Harvey Whiteford)

This study is being undertaken in collaboration with The University of Queensland, Princess Alexandra Hospital and Metro South Addiction Mental Health Services to ascertain the effectiveness of Tai Chi on mood and anxiety symptoms in those with general health disorders such as diabetes, obesity and hypertension, disorders which are often associated with the development of anxiety and/or depressive symptoms. In addition to evaluating the effectiveness on changes in mood and anxiety symptoms the program aims to ascertain Tai Chi’s impact on other factors such as weight loss and physical health in general. The programs outlined above are a representation of the broad range of activities being undertaken by staff of the Mental Health Service in collaboration with the three universities within the Metro South Hospital and Health service catchment. The collaboration between these organisations and institutes such as Queensland Brain and Queensland Mental Health Research is contributing to an incremental growth in the number of publications, research activities and importantly the number of staff who are undertaking higher degree research.

**Personal recovery and involuntary mental health admissions**

(Partners are Marianne Wyder, Robert Bland, David Crompton)

Involuntary mental health admissions are challenging for consumers of mental health services, families and the community. Factors that influence the perception of involuntary treatment include the community’s view of safety, the impact of mental illness on the wellbeing of the individual, the needs of families and carers and for those who seek involuntary treatment the sense of loss of freedom and reduction in capacity for decision making. This project is exploring the impact of involuntary treatment on mental health consumers, staff and families and carers. The evaluation is occurring within a recovery framework. The study seeks to evaluate the impact of involuntary treatment on these perceptions and its influence on the relationship between service providers, carers, staff and the community.
The Nursing Practice Development Unit (NPDU) Research aims to increase quality research activity at the Princess Alexandra Hospital, to improve research capability through leadership, partnership and training, to strengthen the governance of research at PAH, and to increase visibility of PAH nursing research locally, state-wide, nationally, and internationally.

A submission to Health Workforce Australia Funding to extend simulation services to include both pre and post graduate medical and nursing students and staff was successful. The focus of this project is ‘Effective patient assessment: recognising and responding to the deteriorating patient’. The simulation unit was also able to purchase additional resources through this grant. Health Workforce Australia Clinical Supervisor Support Project (CSSP) offered national fellowships in 2012. Scott Tyler, PAH graduate coordinator, was successful in obtaining a fellowship and his focus is on identifying the generic elements of interdisciplinary clinical supervision.

Kerri Holzhauser
Nursing Director Research

Research Activities
The focus for the Nursing Practice Development Unit in 2012 was on basic nursing care, with a visit from Professor Beatrice Kalisch, Professor of Nursing at the University of Michigan. With financial support from the PAH Private Practice Trust Fund, Professor Kalisch spent a week at the hospital undertaking workshops with clinicians on basic nursing cares and presenting at the PAH International Nurses Day Symposium. An outcome from this visit is the commencement of an interventional research project to examine and improve basic nursing cares. In addition, PA Hospital will work with researchers from at least four countries to examine basic nursing cares from an international perspective.

The Unit has research collaborations across the Princess Alexandra Hospital: T O’Keefe, C Jeffrey, E Isenring, P Varghese, L Burmeister, and with B Kalisch at the University of Michigan USA: Essentials of Nursing Care Project.

Major Grants and Financial Support
Competitive funding received from other sources: $267,000

National and International Presentations
S Williams, K Holzhauser, D Bonney, E Burmeister, Y Gilhotra, R Oliver, K Gordon
• Improving pain management of abdominal pain in children presenting to the paediatric emergency department: A pre-post interventional study. 10th ICEN Conference, Hobart
The Princess Alexandra Hospital Department of Nutrition and Dietetics continues to be recognised as an international centre for excellence in Nutrition and Dietetics Research and Practice.

The Nutrition and Dietetics Clinical Research Program has three main themes including Metabolism and Obesity (Group Head Dr Ingrid Hickman), Kidney and Cardiovascular Disease (Group Head Dr Katrina Campbell) and Oncology and Malnutrition (Group Head Dr Liz Isenring).

The Department published 37 manuscripts, participated in over 25 international and national conference presentations and attained over $2.1 million in competitive research funds in 2012. Four Dietitians are enrolled in research higher degrees and supervised by the Research Fellows within the Department.

Considerable effort has been invested to increase research capacity within the Department with significant increases in engagement of clinical staff with research activity. A program of critical appraisal of the literature, undertaken by all staff and supported by the Research Fellows, has generated important discussions for implementing evidence based practice and enabling better translation of research findings into clinical care. As a result of this engagement, 30% of publications from the Department in 2012 included a non-research clinical staff member as a co-author.

Dr Maree Ferguson
Director
Dr Ingrid Hickman
Director of Research

**Research Activities**

*Substrate utilisation in obesity-related chronic disease* (Croci I, Byrne N, Macdonald G, Prins J, Hickman I)

Metabolic stress is a key component of obesity-related disease. Our study aims to measure substrate utilisation pathways such as fat oxidation and carbohydrate oxidation using indirect calorimetry in states of fasting, hyperinsulinemia and acute exercise, in order to understand the mechanisms of disease progression.

*Vitamin D and metabolic function in obesity* (Wright O, O’Moore-Sullivan T, Whitehead J, Hickman I)

This study aims to identify mechanistic links between vitamin D and metabolic function in obesity such as insulin resistance, adiponectin and lipid metabolism. Cross-sectional analysis of large cohorts of obese patients highlight the complex relationship between vitamin status and metabolic health.


Weight gain in liver transplant recipients is common and most rapid in the first 6 months after transplant. This study aims to identify the drivers of weight gain after transplant and investigates hedonic factors such as emotional eating, health beliefs, taste function, stress and physical activity levels on dietary intake.

*Vitamin D and carnitine deficiencies in medical oncology patients receiving chemotherapy* (Teleni L, Walpole E, Kimlin M, Davidson W, Ferguson M, Koczwarra B, Isenring L)

Preliminary results show that approximately two thirds of oncology patients receiving chemotherapy have low levels of vitamin D. These results were presented at the Multinational Association for Supportive Care in Cancer in Greece, June 2011.
Sodium intake and taste sensitivity in primary aldosteronism trial (Campbell K, Pimenta E, Stowasser M)
This is a prospective observational study investigating change in dietary intake and taste sensitivity in patients with primary aldosteronism, following adrenalectomy or spironolactone treatment. This is part of a larger study investigating effects on obstructive sleep apnoea.

CKD.QLD Nutrition Study: Nutrition status and outcome in CKD (Campbell K, B Morey, M Manafi, A Campbell, K Boyce)
To determine the influence of nutrition status on clinical outcome in CKD patients, this study will characterise potentially-modifiable dietary factors from early CKD, map change over time and identify how these factors relate to outcomes. This is a prospective observational study in five sites across metropolitan, regional and remote Queensland.

Traditional quantitative methods of assessing sodium intake are time consuming and rarely done in clinical practice. The purpose of this research is to validate a Scored Sodium Questionnaire (SSQ) as a quick and easy clinical and research tool for assessing salt intake in renal patients.

UREMIC TOXIN: Utility in Renal disease of Measuring Indoxyl sulphate and p-Cresyl sulphate To predict OXidative stress, Inflammation and clinical outcomes (Rossi M, Johnson D, Isbel N, Campbell K)
This study aims to gain better understanding of the associations between protein-bound uremic toxins and Cardiovascular Disease and CKD progression, along with other poor outcomes seen in CKD, and to determine whether live kidney donors have an increased concentration of these toxins and if this is associated with morbidity.

Obesity-related inflammation and insulin resistance in chronic liver disease: exercise and diet as treatment options (Hickman I, Prins J, O’Moore-Sullivan T, Byrne N, Hills A, Clouston A, Croci I, Chachay V, Macdonald G)
This study investigates the role of diet and exercise as treatment options for non-alcoholic fatty liver disease. The randomised controlled trial investigates the effect of weight loss or exercise on insulin resistance, body composition and liver histology and aims to identify mechanisms whereby lifestyle intervention may benefit chronic liver disease.

This study investigates the effect of resveratrol, a plant derived antioxidant, on factors associated with severity of fatty liver disease such as insulin resistance, visceral adiposity and hepatic steatosis. This randomised placebo controlled trial will assess the effectiveness of daily supplements as a treatment option for patients with fatty liver disease.

Pre-liver transplant nutrition status and impact on post-liver transplant outcomes (Murray E, McCoy S, Macdonald G, Campbell K, Hickman I)
This study aims to identify the dietetic priority areas for liver transplant recipients and the effect of nutritional status on outcomes in this unique patient population.

Vitamin D supplementation trial (Teleni L, Walpole E, Kimlin M, Davidson W, Ferguson M, Isenring L)
This study investigates supplementing vitamin D deficient or insufficient patients undergoing chemotherapy improves their serum vitamin D levels and leads to improved quality of life and physical function outcomes. Recruitment has commenced.

This project investigates whether a specialist nutrition supplement is better than a traditional supplement in patients with oesophageal cancer undergoing surgical resection in terms of minimising complications and length of stay. PAH has been a leading site in this multistate NHMRC funded trial and assisting other sites in effective data collection procedures.
**Malnutrition screening in daycare** (Abbott J, Teleni L, Isenring L)
This study aims to investigate if an automated screening system is effective for identifying patients at nutritional risk. Investigators have developed protocols and are awaiting the results of the HP grants scheme.

**Is ginger effective for CINV** (Teleni L, Vittetti L, Thompson D, Isenring L)
This study aims to investigate if ginger with current antiemetic regimens improves the control of chemotherapy induced nausea and vomiting more than standard antiemetic therapy alone. A literature review has been conducted and a manuscript drafted for submission in 2012. Awaiting the outcome of HP grants scheme.

This project aims to investigate the effect of a high versus low sodium diet on blood pressure (BP), cardiovascular risk factors, risk factors for kidney function decline and taste sensitivity in participants with moderate kidney disease.

**LM3 (LandMark 3): A randomised controlled trial comparing the impact of aggressive risk factor and lifestyle modification to limit the progression of Cardiovascular Disease in patients with CKD (Chronic Kidney Disease)** (Isbel N, Team: Douglas B, Howden E, Strand H, Marwick T, Coombs J, Dietary intervention: Orazio L, Campbell K)
This study is aims to investigate the impact of aggressive risk factor and lifestyle modification utilising nurse led co-ordinated care with standard care to limit the progression of cardiovascular disease in patients with chronic kidney disease.

**Overcoming barriers to accessing obesity management expertise through innovative telemedicine service delivery** (Whelan M, Reeves M, Eakin E, Davis, A, Gwizd M, Cooney L, Power E, Honeyball S, Hickman I)
Innovative dietetic service delivery approaches are being trialled in this study to assess the feasibility of introducing telephone based weight management counselling into a real world setting.

**Guidelines for nutrition in kidney transplant recipients: are they translating to quality care and improved clinical outcomes?** (Orazio L, Murray E, Campbell K)
The aim of this study is to evaluate the implementation of evidence into practice, including a new dietetics clinic and implementation of key service recommendations from new Evidence Based Practice (EBP) Guidelines for Nutrition in Kidney Transplant Recipients, targeting lifestyle behaviours and changes post transplant.

**Nutrition in peritoneal dialysis: barriers for adequate protein intake** (Young V, Orazio L, Johnson D, Badve S, Bates A, Campbell K) Peritoneal Dialysis (PD) patients are often malnourished, with established barriers to adequate protein intake being gastrointestinal symptoms, medications, restrictive diets and infections. The aim of this project is to identify the medical, nutritional and social factors which relate to inadequate protein intake in PD patients.

**Evaluation of the implementation of an information technology system for capturing the nutrition care process on patient outcomes** (Ferguson M, Rossi M, Johnson D, Capra S, Hulcombe J, Lees M, Campbell K)
The aim of this study is to compare use of an innovative electronic vs current manual system for capturing the nutrition care process (ie nutrition screening, assessment, intervention, monitoring and evaluation) on patient outcomes such as weight, nutritional status, dietary intake, nutrition impact symptoms, quality of life and treatment compliance.

**A randomised control trial assessing outcomes of two service models providing nutritional support to older people presenting to Emergency Department** (Vivanti A, Ferguson M, Powrie D, O’Neill M, Isenring L)
The purpose of this study is to determine the optimum model of care to deliver nutrition services to older adults admitted to the Emergency Department and identified at risk of malnutrition.

**Assessing the sensitivity and specificity of screening questions for referral and prioritisation in a Medical Assessment and Planning Unit (MAPU)** (Vivanti A, McPhail S, Aggarwal L, Robinson K, O’Neill M)
This study is designed to assess the ability of 3 screening tools to identify re-presentation to Emergency departments or admission to hospital at 14, 30 and 90 days post presentation, and to assess the relative additional risk of readmission in those who are screened at risk of malnutrition.

### Major Grants and Financial Support

| Total NHMRC funding received: | $1,816,710 |
| Competitive funding received from other sources: | $384,000 |

### National and International Presentations
The Nutrition and Dietetics Department participated in over 25 international and national conference presentations in 2012.
In 2012 the research activity of the Princess Alexandra Hospital Occupational Therapy Department remained in the areas of brain injury acute care and rehabilitation, cancer services, spinal cord injury research, aged care assessment and management, and hand and upper limb rehabilitation. A highlight of 2012 was inclusion in a successful application for a NHMRC Centre of Research Excellence in traumatic brain injury rehabilitation with funding of $2.5 million over the next 5 years.

The Occupational Therapy Department was involved in two Australian Research Council (ARC) Linkage grants for multidisciplinary research projects in the field of acquired disability, which were finalised in 2012. Occupational Therapy staff strengthened their strong research profile nationally and internationally through dissemination of their research outcomes through 21 publications in peer-reviewed journals and nine presentations at national and international conferences throughout the year. The Department supported nine postgraduate research students conducting research in the fields of brain injury, aged care, and hand therapy.

The Department is a major contributor to the Occupational Therapy clinical knowledge base and the profession’s evidence-based clinical decision making. With over 35,000 occasions of service undertaken in 2012, the Department is strengthening the knowledge translation agenda with an organisational participatory action research project funded with a private practice research grant aiming to close the research practice gap. This direction will go forward into 2013 ensuring the Department’s research activity is enhancing outcomes for its patients.

Mary Whitehead
Director
Ruth Cox
Acting Director
Jennifer Fleming
Associate Professor

**Research Activities**

**Clinical Trials**

**Skill mix in an aged care rehabilitation setting: trial of an advanced scope of practice Occupational Therapy Assistant role at the Princess Alexandra Hospital, Demonstration Project** (Cox R, Mills V, Wood A, Wiemers A, Clements L, Fleming J)

This project aims to compare the efficacy of occupational therapy groups led by occupational therapists and occupational therapy assistants.

**Other Research**

**Participatory action research of knowledge translation in occupational therapy** (Whitehead M, Caldwell E, Bennett S, Fleming J)

This program aims to further develop, implement and evaluate knowledge translation in the occupational therapy department. Ethical clearance was obtained in 2012.

**Leisure therapy in the Spinal Injuries Unit: using goal attainment as a measure of service delivery outcomes during rehabilitation** (Martin K, Kendall M, Price G, Cox R)

This project received ethical clearance and commenced in 2012.

**An evaluation of student-led groups program in brain injury rehabilitation** (Ninness N, Patterson F, Fleming J)

This study is evaluating the success of an innovative student placement model in the brain injury rehabilitation which involves therapy groups led by occupational therapy students. Ethical clearance was obtained in 2012 and the pilot conducted.
Use of groups in brain injury rehabilitation: a mixed methods study of group processes and effectiveness (Patterson F, Fleming J, Doig E)
This PhD project aims to investigate group processes in brain injury rehabilitation and was commenced in 2012.

Brain Injury Service Patient Satisfaction Questionnaire (Griffin J)
This study uses a patient satisfaction survey to evaluate services in the Brain Injury Rehabilitation Unit. Ethical clearance was obtained in 2012 and data collection commenced.

Determinants of successful transition from hospital to home for individuals with acquired brain injury and their family caregivers (Fleming J, Nalder E, Turner B, Cornwell P, Worrall L, Ownsworth T, Haines T, Kendall M, Chenoweth L)
Funded by an ARC-Linkage Project Grant, this project is a mixed methods investigation of sentinel events during the period of transition home for people with brain injury. The project involved two PhD students, one who graduated in 2012. Six papers published in 2012.

Facilitation of self management of the upper limb following a stroke (Bower K, Hoffmann T, Gustafsson L)
This program of research aims to develop and evaluate resources for occupational therapists and physiotherapists to use in subacute stroke rehabilitation. The resources will aim to foster self-management skills for the ongoing recovery of the stroke-affected upper limb. Two publications in 2012.

Evaluation of a telephone screening tool for the presence of post-concussive symptoms (Wright S, Prescott C, Fleming J)
The aim of this study is to compare the use of a telephone screening tool to a face to face clinical assessment for patients presenting to the Emergency Department with a mild traumatic brain injury. The project was funded by a HP Research grant.

Financing and management of lifetime care for adults with acquired disabilities and high care needs (Foster M, Henman P, Fleming J, Tilse C)
This ARC-Linkage project examines the funding, service system, and policies associated with the lifetime care and support and young adults with high care needs due to acquired disabilities such as brain injury, spinal cord injury, or progressive neurological diseases. The project was completed in 2012 with two publications and an industry report.

Does individualised hand splinting reduce spasticity after traumatic brain injury (Copley J, Kuipers K, Fleming J, Griffin J)
This study uses a series of single case studies to demonstrate the effectiveness of an individualised approach to splinting of the hypertonic upper limb and resulted in two publications in 2012.

Goal setting and attainment by individuals in spinal cord injury rehabilitation using the Canadian Occupational Performance Measure (Mitchell G, Gustafsson L, Fleming J, Price G)
An honours student project which aims to examine the use of client-centred goal setting in the spinal injury unit, this study was published in 2012.

Investigations of care requirements of people with brain tumour (Haines T, Cornwell P, Fleming J, Olsen S, Omerod A, Dicks B)
A qualitative study of the early post-discharge support needs of people with brain tumour and their families, and was published in 2012.

Comparison of two methods of measuring for compression arm sleeves for lymphoedema (Nixon J, Purcell A)
This industry supported project aims to determine which approach to measurement of the upper limb results in the prescription of the most effective compression garments for patients with lymphoedema.

Clinical utility, reliability and validity of the Self-Perceptions in Rehabilitation Questionnaire (SPIRQ) in brain injury rehabilitation (Ownsworth T, Fleming J, Ross J, Collier AM, Stewart E)
This aim of this project was to develop a new standardised questionnaire to evaluate patients’ perceptions of the rehabilitation process following acquired brain injury. Paper accepted for publication.

Helping people with traumatic brain injury and their families adjust to driving cessation (McKenna K, Fleming J, Liddle J, Turpin M, Weir N, Whitelaw P)
The aim of this qualitative research was to understand the experiences of individuals with brain injury who do not have medical clearance to return to drive and the impact of the loss of the driving role on them and their families. One paper published in 2012.
The effect of environmental barriers on community integration following traumatic brain injury (Fleming J, Nalder E, Alves-Stein S)
This prospective longitudinal study aims to determine the extent to which environmental barriers including physical, social, service and attitudinal barriers impact upon functional outcomes in the first 6 months following discharge from hospital after traumatic brain injury. Paper accepted for publication in 2012.

Compression therapy oedema of the stroke-affected upper limb (Gustafsson L, Bower K, Slaughter A, Robertson C, Walter A)
This study aims to establish clinical evidence for the use of compression therapy in stroke rehabilitation. It examines whether low stretch or high stretch bandaging is more effective in reducing oedema in the hemiplegic upper limb.

Evaluation of the utility of a newly developed virtual reality prospective memory task for individuals with traumatic brain injury (Shum D, Fleming J, Mann D, Griffin J, Patterson F, Canty A)
This study aims to establish the clinical utility of a computerised shopping task in a ‘virtual mall’ for the assessment and rehabilitation of forgetfulness in adults with traumatic brain injury. Project funded by the PA Foundation. Paper submitted for publication 2012.

A pilot study of error-based versus errorless learning in traumatic brain injury rehabilitation (Ownsworth T, Fleming J, Beadle L, Griffin J)
This series of single case study participants were randomly allocated to either an error-based or errorless learning approach that was applied during the practice of functional activities. Pilot data was used in 2012 in a successful NHMRC project grant application.

Developing an objective circumferential measurement tool for head and neck lymphoedema (Nixon J, Purcell A)
Currently there is no objective clinical method for measuring oedema in patients with head and neck cancer. This study examined the reliability and validity of a circumferential measurement protocol in a pilot study of 10 participants. Awarded best conference presentation.

Prospective study of omission of an elective neck dissection in metastatic squamous cell carcinoma of the skin to the parotid gland in patients requiring post-operative radiotherapy to the parotid bed (Adams G, Porceddu S, Nixon J)
The occupational therapy contribution to this larger trial involves examination of the quality of life/late effects of omitting neck dissection to this patient group

Implementation and evaluation of an inpatient multi-disciplinary upper limb group based on the principles of the ‘Drive Your Own Recovery’ (DYOR) course (Hayward K, Mitchell J, Ninnes E, Barker R)
The aim is to pilot an inpatient multi-disciplinary upper limb stroke therapy group, based on the DYOR course delivered in the Geriatric Assessment and Rehabilitation Unit. The study evaluates the effect of the group on functional outcomes, self-efficacy of patients, family members and staff.

The ALOHA trial: Assessment of Lymphoedema Of the Head And neck (Purcell A, Nixon J, Porceddu S, McCann A)
The aim of this study is to test the reliability and validity of two head and neck assessment tools in two groups; patients with head and neck lymphoedema, and community controls. Recruitment has commenced.

Awards and Prizes
Dr Amand Purcell and Jodie Nixon
• Best Podium Presentation, 9th Australasian Lymphology Association Conference

Adrienne Slaughter
• Travelling Fellowship, PAH Society
• Best Poster Prize, Australian Hand Therapy Association Conference

Major Grants and Financial Support
Total NHMRC funding: $500,000
Other competitive funding: $34,473

National and International Presentations
Associate Professor Jennifer Fleming
• Career Path Presentation, The University of Queensland, Brisbane

Ruth Cox and Vickie Mills
• Health Workforce Australia, Caring for Older People Program - The Wrap Up, Adelaide

Dr Amanda Purcell
• Australian Podiatry Association State Conference
• Smith and Nephew Elvarex Custom Measuring
Older Persons Mental Health Department

The Princess Alexandra Hospital Older Persons Mental Health Department provides acute inpatient and community based services to people with severe and complex psychiatric presentations targeting older adults from 65 years and older. The service is part of the Older Persons Academic Clinical Unit within Metro South Addiction and Mental Health Services.

In collaboration with the Centre for Research in Geriatric Medicine (CRGM), the Department initiated one of the first dementia literacy interventions trialled among nonclinical staff in a hospital setting. The HEADS study was coordinated by Dr Catherine Travers and conducted at the PAH using funding from the Sherrin Fund and the PAH Foundation. The survey and analysis of nutritional biomarkers among patients in our acute ward at PAH continued in 2012. Winsome Abbott presented preliminary findings from this study in Leipzig late in 2012.

Most of the Department’s publications related to projects with external partners covering a diverse range of topics with the Dementia Collaborative Research Centres. As another highlight, the Department hosted its second Research Intern, Georgina Parker, from Bond University who conducted a structured literature review around the impact of natural disasters on the mental health and wellbeing of older adults.

Dr David Lie
Clinical Director Older Persons Mental Health Department
Metro South Addiction and Mental Health Services

Research Activities

Clinical Trials

B12 and folate levels in older mental health patients 2011-2012 (Abbott W, Hokin B, Lie D, Squelch N, Dark F, Varghese P)
Inpatient population survey and data analysis of nutritional biomarkers ($5,000 Grant, Adventist Church).

Hospital Employees Awareness and Attitudes to Dementia
Interventional study testing efficacy of a work-based dementia literacy program; completed 2012 ($55,378 Sherrin Trust; Princess Alexandra Hospital Foundation).

Dementia and Population Health Needs Evaluation DAPHNE 2010-2012 (Travers C, Martin Khan M, Lie D)
Literature review and needs evaluation of the population health approach applied to dementia in the Australian context (Dementia Collaborative Research Centres $77,000 grant).

Mental Health sequelae of older adults exposed to natural disaster (Parker G, Lie D)
Mental Health sequelae of older adults exposed to natural disaster – Literature review and meta-analysis.

Major Grants and Financial Support

Other competitive funding: $55,378

National and International Presentations

Dr David Lie

• Dementia: A population health approach, International Conference on Global Public Health 2012, December 3-4, Galadari Hotel, Colombo, Sri Lanka

• Older adults and the mental health sequelae of natural disasters, Australian & New Zealand National Disaster and Emergency Management Conference, Brisbane
Orthopaedic Unit

The Princess Alexandra Hospital Orthopaedic Unit is a tertiary referral centre that consists of 48 beds and a collocated orthopaedic outpatient clinic. The Unit caters for both elective and trauma patients and provides tertiary referral service to the State in complex trauma, pelvic trauma, acute and complex spinal injury management, orthopaedic oncology, micro-vascular hand surgery, upper and lower limb surgery, joint replacement and joint revision surgery.

The Fractured Neck of Femur (NOF) initiative introduced in the Unit in 2006 continues to achieve improvements in the streamlined evidenced based care of fractured NOF patients. In 2012, 195 patients were admitted with a fractured NOF and 67% of patients accessed surgery within 48 hours from admission. Average acute length of stay was six days. In 2012 the Orthopaedic Unit NOF Team was a recipient of a Queensland Health Australia Day Award. A number of Master degrees were commenced by Orthopaedic Unit staff in 2012: Kate Bell, Genni Lynch, Nicole Lyons, Donna McLean and Jacinda Windley.

Approximately 4,200 orthopaedic operations are performed by the Unit every year, as well as over 26,700 outpatient consultations. This large clinical load broadens the opportunity to focus on clinical outcomes and develop valuable research within the Orthopaedic Unit.

Dr Cameron Cooke
Director

Research Activities

**Bisphosphonate therapy in osteonecrosis of the hip** (Cooke C, Duncan E)
A randomised controlled trial.

**Surgery for Type B ankle fractures** (Malisano L)
Combined randomised and observational study.

**Comparing the outcome of two modern generation long cephalomedullary intramedullary nails for the treatment of intertrochanteric fractures of the femur** (Cooke C, Dekkers M, King D)
Prospective randomized trial.

**Intramedullary hip screw versus dynamic hip screw** (Cooke C, Dekkers M, King D)
A prospective randomised control trial.

**Nursing time associated with patient controlled analgesia (PCA) preparation and maintenance in an Orthopaedic Unit** (N Lyons)

**The influence of cartilage thickness at the sigmoid notch on distal radioulnar joint inclination** (Ross M, Wiemann M, Peters S, Couzens G)

**Measuring ulnar variance using magnetic resonance imaging** (Cockfield A, Cutbush K, Couzens G, Kennedy D, Ross M)

**Pyrotitan prospective multicentre trial** (Ross M)

**Stainless steel versus titanium volar multi-axial locking plates for fixation of distal radius fractures** (Couzens G, Ross M, Peters S, Cutbush K)
A multi-centre randomised controlled trial.

**Modified conservative management verses early surgical intervention amongst young people with anterior shoulder dislocation** (Johnson A, Ross M, Peters S, McPhail S, Lam G)
A randomised controlled trial.

**Radial translation malunion – defining normal parameters for residual radial translation**
Completed

Awards and Prizes

Orthopaedic Unit NOF Team
- Queensland Health Australia Day Award 2012

National and International Presentations

**J Allen**
- ‘NTASM data updates’, Royal Australasian College of Surgeons NT, WA & SA Combined 2012 Annual Scientific Meeting Bunker Bay WA

**L Anderson**
- Application of Below Knee Plaster of Paris Backslabs

**K Bell**
- Hip Fracture Management Conference Melbourne: Presentation
- Perfecting Orthopaedic Performance, QONSIG, Townsville: Presentation
C Bollman
- Long Term Follow Up of Pyrocarbon pip Joint Hemiarthroplasty: Queensland Hand Surgery Society 2012 Case Review

C Cooke
- Convenor, Femoral and Tibial IM Nailing Course, OTC South Pacific, Brisbane
- Managing of Femoral Shaft Fractures and Positioning, Femoral and Tibial IM Nailing Course, OTC South Pacific, Brisbane
- Fractured Neck of Femur Management at the Princes Alexandra Hospital, PAH Health Symposium Program
- Long Bone Fracture Management, AOA Qld Bone School Education Program
- Damage Control – Open Fractures, AOA Qld Bone School Education Program
- Large Bone Defect – Distal Tibia, AO Trauma Seminar - Challenges in Complex Fracture Management
- My Worst Case – Catastrophes and Salvages, AO Trauma Seminar - Challenges in Complex Fracture Management
- Management of Chronic Osteomyelitis, Plastic and Reconstructive Surgery 2012, Registrars Conference, Brisbane
- Principles of Management of Diaphyseal Fractures, AO Trauma ORP Course Principle in Operative Fracture Management, Melbourne
- Form and Function of Plates, AO Trauma Course Principles in Operative Fracture Management, Melbourne
- Relative Stability Using the Locking Compression Plate, AO Trauma Course Principles in Operative Fracture Management, Melbourne
- Fractures of the distal femur, AO Trauma Course Principles in Operative Fracture Management, Melbourne
- Use of the Traction Table, AO Trauma Course Principles in Operative Fracture Management, Melbourne
- Management of Trauma in the elderly population, Plenary Lecture, AOA Queensland ASM

G Couzens
- Magnetic Resonance Scan Findings in the Asymptomatic Wrist: American Hand Surgery Society 2012
- Muscle activity in unloaded and loaded flexion extension of the wrist – AAHS / ASSH 2012 (American Association Hand Surgery / Australian Hand Surgery Society)

K Cutbush
- Subscapularis Arthroscopic Bursal Side Repair, Shoulder and Elbow Society of Australia
- The Salvage of the Failed Shoulder ORIF, Lima SMR shoulder Conference Milan

R Gordon
- ‘A Wheel and Spoke Model for Rural Teleconferencing of Fracture Management’, North J. New Zealand Orthopaedic Association Annual Scientific Meeting, Dunedin

B Hope
- Primary Reverse Total Shoulder Replacement for 3 &4 Part Humeral Fractures: 2012 Australian Shoulder and Elbow Society

N Jorgensen

R Laidlaw
- ‘Is There a Relationship between Motorcycle Construction, and Type and Severity of Pelvic Fractures in Motorcycle Accidents? North J. Australian Orthopaedic Association Annual Scientific Meeting, Sydney
- ‘Possible Implications of Late Recognition of Fibrous Dysplasia of Bone; Three cases of misdiagnosis’ (e-Poster), Australian Orthopaedic Association Annual Scientific Meeting, Sydney

D Long
- Hip Fracture Management Conference Melbourne: Presentation

A McGill
- Teleconference Fracture Clinics - a Trail for Rural Hospitals’, Australian Orthopaedic Association Queensland Branch Annual Scientific Meeting
• ‘An Analysis of and Ongoing Trial of Rural Teleconference Fracture Clinics’, Australian Orthopaedic Association Annual Scientific Meeting, Sydney

J North

• ‘Distance, Delay and Deteriorating Patients’ QASM/HQCC Seminar, Brisbane

• ‘Complex Decision Making in Modern Surgical Practice’ QASM Seminar, Brisbane

• Lessons from the Audit, Volume 10’. Queensland Audit of Surgical Mortality Royal Australasian College of Surgeons

• ‘Telehealth Fracture Clinics for Rural and Remote Communities’, Royal Australasian College of Surgeons NT, WA & SA Combined 2012 Annual Scientific Meeting, Bunker Bay WA

• ‘Learning from the ‘Lessons’’, Royal Australasian College of Surgeons Queensland Annual Scientific Meeting Point Lookout

• ‘Telehealth Fracture Clinics, the PAH - Mt Isa experience’ North J, Royal Australasian College of Surgeons Queensland Annual Scientific Meeting Point Lookout

• ‘Lessons from the Complaints Commission’ (Plenary Lecturer) Australian Orthopaedic Association Annual Scientific Meeting, Sydney

• ‘Tribunal Assessment, Transitioning from a Paper System to a Paperless One’ (e-Poster). New Zealand Orthopaedic Association Annual Scientific Meeting, Dunedin

• ‘QASM Data Speaks for itself’. Complex Decision Making in Modern Surgical Practice. A QASM Seminar for Surgeons, Brisbane

M Ross

• The Effect of Residual Radial Translation of Distal Radial Fractures on DRUJ Stability: American Hand Surgery Society 2012

• The Influence of Cartilage Thickness at the Sigmoid Notch on Distal Radioulnar Joint Inclination: American Hand Surgery Society

• Lima Shoulder Meeting Milan July 2012

• Long term results of modular shoulder arthroplasty

• Invited Symposium on Hand and Wrist Surgery at the Christine M Kleinert Institute for Hand and Microsurgery in Louisville Kentucky USA

• A new technique for Scapholunate Ligament Reconstruction with Transosseous Tunnels and Interference Screw Fixation

• Optimising Outcomes for PIPJ Arthroplasty

• International Wrist Investigators Workshop

• Radial Translation Malunion as an Occult Cause of DRUJ Instability

• ASSH 2012 Australian Surgery Society of the Hand

• Scapholunate Instability: Advanced Reconstructive Techniques

• Treatment Options for the Scapholunate Ligament Complex

• PIP Joint Replacement: The International Perspective

• AOA Annual Scientific Meeting Sydney

• Invited Lecture ICL - How I perform a Total Shoulder Replacement

• Invited Lecture ICL - Biomechanics and Treatment of the DRUJ

• Invited Lecture ICL - The role of shoulder fusion in management of Brachial Plexus Injuries

• Free Paper - Results Of A Multi-Centre Prospective Study Of Pyrocarbon Humeral Resurfacing Arthroplasty (HRA)

V Selvaratnam

• Uncemented Total Hip Arthroplasty for Displaced Subcapital Femoral Fractures’: AOA, Annual Scientific Meeting

• Upper Extremity 3D Kinematics in the Dart-Throwing Motion of the Wrist: preliminary results AAHS / ASSH March 2012 (American Association Hand Surgery / Australian Hand Surgery Society)

• A New Trans-Osseous Technique for Scapho-Lunate Ligament Reconstruction Utilising the Interference Screw Fixation AAHS / ASSH March 2012 (American Association Hand Surgery / Australian Hand Surgery Society)

M Simpson

• Telehealth – Connecting PAH to Queensland’.Australian Orthopaedic Association, Scientific Meeting, Sydney
Otolaryngology Department – Head and Neck Surgery and the Queensland Skull Base Unit

With input from the Departments of Otolaryngology - Head and Neck Surgery, Neurosurgery, Radiation Oncology and Radiology, Australia’s first multidisciplinary clinic for skull base surgery, commenced at the Princess Alexandra Hospital in early 2012. By reviewing all non-malignant skull base complex cases, the new Unit complements the Department’s Head and Neck Surgery multidisciplinary clinic, which is the largest head and neck multidisciplinary team in Australia.

In July 2012 the Department held the annual Global Postlaryngectomy Cadaver Demonstration Course, run in collaboration with the PAH Speech Pathology Department and the Head and Neck Cadaver Dissection Course of The University of Queensland. In August 2012 the Department also held the David Brown-Rothwell Memorial 4th Biennial Queensland Acoustic Neuroma Conference in the PAH Russell Strong Auditorium, with over 190 registrants. This forum for patient education also involved allied health professionals, doctors, and students.

The Queensland Centre of Excellence for Head and Neck Cancer (QCEHNC) was established at PAH in 2012 with a $15 million grant received from Atlantic Philanthropies, the Queensland Government and the PAH. Central to the new Centre the Department has expanded its research higher degree program currently supervising one PhD and the MPhils in 2012 and aiming to enrol a further three MPhils for the following year.

Associate Professor Ben Panizza
Director Department of Otolaryngology - Head and Neck Surgery and the Queensland Skull Base Unit

Research Activities

The Board of the Queensland Centre of Excellence for Head and Neck Cancer (QCEHNC) established at PAH in 2012 is chaired by Professor David Theile AO. The Centre’s research aims to result in novel therapeutic diagnostic targets in the management of head and head and neck squamous cell carcinoma (HNSCC) patients who were in the past deemed inoperable, and in immunotherapy to develop vaccines to treat and protect those at risk. The work will also create an important baseline database of molecular pathways in HNSCC and risk factors, stimulating future projects to young surgeons and basic researchers in new novel small molecule therapies, and attracting additional sources of funding and commercialisation of research results.

Clinical Trials

A randomized phase II study comparing standard chemotherapy vs standard chemotherapy and immunotherapy in NPC patients with recurrent or metastatic disease (Khanna R, Moss D, Panizza B, Porcduddu S)

Treatment of cutaneous metastatic disease to the parotid region utility of PET scanning in determining treatment of neck metastases post chemoradiation therapy (Panizza B)

Defining the role of viral oncogenesis in oral squamous cell carcinomas (Zammit A, Perry C, Frazer I)

The major risk factors for the development of oral cavity cancer include tobacco and alcohol consumption. There has been a growing incidence of oral cavity cancers in a younger population group who have not had any exposure to these traditional risk factors. Several different factors have been attributed to causing this rising incidence in groups without traditional risk factors. One hypothesis is viral oncogenesis.

Other Research

Associate Professor Ben Panizza is lead investigator in large nerve perineural spread of cutaneous malignancies of the head and neck. This is a Queensland disease, which is poorly understood:
• Skull base techniques have been developed to manage the disease leading to a vast improvement in survival rates.

• The clinical and molecular aspects of the disease have been and are currently being studied with QIMR, S&N and Qld XRay.

• A Queensland Perineural Study Group was established with Brian De’Ambrosis in 2008 to prospectively study the epidemiology of this disease. This incorporates dermatologist, plastic surgeons, histopathologists, head and neck radiologists and radiation oncologists and has recently involved Professor Soyer from UQ.

Acoustic neuroma research:
• This historically has an incidence of 1:80,000 per year, however, it is known that autopsy studies have shown this tumour to be as common as 1:300. The pick up rate is proportional to the number of MRI machines. A large database of AN’s being observed is being used to determine treatment paradigms.

• A tumour bank was established in 1997 and provides material for molecular research.

• The effects of observation and treatment on balance and quality of life have been performed with the UQ Department of Physiotherapy.

Collaboration on nasopharyngeal cancer vaccine:
• Chief clinical investigator for an extended phase 1 study looking at the effectiveness of adoptive T-cell immunotherapy in residual/recurrent disease.

• Development of phase 2 study commencing in 2013.

EBC46 for palliation of head and neck cancer:
• Principle supervisor on animal studies studying the effectiveness on SCC’s in mouse models.

• Currently establishing phase 1 studies of EBC46 for palliation of far advanced head and neck SCC.

Saliva Research (Punyadeera C)


ENHANCES Study (Enhancing Head and Neck Cancer Patients’ Experiences of Survivorship) (Turner J – UQ School of Medicine, Yates P, Kenny L, Hughes B, Chan R – RBWH, Burmeister B, Thomson D, Perry C – PAH, McCarthy A, Gordon L; Fraser A, Skerman H, Batstone M, Carswell K - Associate and affiliated investigators) This study has received significant NHMRC funding.

Development of a novel topical macrolide solution for use in chronic airway inflammation (Wallwork B) Masters Project, Allsop T.

Development of a model of in vitro airway inflammation for screening novel compounds and the in vitro anti-inflammatory activity of Xylitol (Wallwork B, Panizza B) Masters Project, Thompson M.

Awards and Prizes
Dr Tim Warren
• PA Hospital Research Fellowship

Major Grants and Financial Support

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>Total NHMRC funding:</td>
<td>$106,000</td>
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<tr>
<td>Other competitive funding:</td>
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National and International Presentations

Associate Professor Ben Panizza
• Invited Speaker, Round Table: Skull Base Malignancy 1; Dilemmas in the Management of Lateral Skull Base Malignancy. 6th International Congress of the World Federation of Skull Base Societies and the 10th European Skull Base Society Congress, Brighton, UK

• Invited Speaker, Chasing perineural disease in the skull base. Australian Society of Otolaryngology, Head and Neck Surgery ASM, Adelaide

• Accessing the Parapharyngeal Space: An anatomical study comparing the endoscopic endonasal and the subtemporal preauricular approaches. Presented at the North American Skull Base Society Annual Meeting. Las Vegas, Nevada

• Invited Speaker, Large nerve perineural spread of cutaneous malignancy. Tri-Society Head and Neck Oncology Meeting, Singapore

• Instructional Session, Instrumentation in skull base surgery. Tri-Society Head and Neck Oncology Meeting, Singapore

• Invited Speaker, Paediatric skull base tumours, Australian and New Zealand Society of Paediatric Otolaryngology 2011 Conference, Brisbane

Associate Professor Chris Perry
• Invited Workshop – 60 minute presentation on ‘The Difficult Thyroid.’ ASOHNs 2012, Adelaide

Dr Tim Warren
• Australasian College of Dermatologists Annual Meeting: ‘An update on skin cancer with perineural invasion of the head and neck’
The research output of the Princess Alexandra Hospital Pharmacy Department focussed heavily on the prescribing and administration of medicine in 2012. Highlights of the year included the progression of staff toward their PhDs, and linkages with the The University of Queensland.

In 2012, the Pharmacy Department led multidisciplinary collaborative randomised controlled trials to evaluate current practice and new service models. The key area of research for the Department continues to be within cancer services, with two Pharmacists in Cancer Services pursuing a PhD in 2012.

The Department has increased its capacity for small scale research projects, and in 2012 took on sixteen 4th Year University of Queensland undergraduate students doing research projects. The Department also supported over one hundred clinical trials led by other researchers within the Princess Alexandra Hospital, through the dispensing of medications for these studies.

Collaborations forged within the hospital and with researchers at the Queensland University of Technology and The University of Queensland make 2013 look like a promising year for research within the Pharmacy Department.

Adjunct Associate Professor Lynette Loy
Director

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**Research Activities**

**Clinical Trials**

**Chemotherapy induced nausea and vomiting in patients receiving chemotherapy for non-hodgkin’s lymphoma** (Carrington C)

Dr Carrington has received a large grant to investigate chemotherapy induced nausea and vomiting, side effects that significantly impact on a patients quality of life, and research into the area has the potential to improve this.

**The role of ginger in treating nausea and vomiting induced by cancer chemotherapy** (McKavanagh D)

Ginger has been traditionally used for nausea and vomiting due to many causes and its role in this area could potentially improve quality of life for patients receiving chemotherapy.

**The stability of antibiotics in solution for patients being treated at home with intravenous antibiotics** (McDougall D)

This excellent research has shown that some commonly used antibiotics are not stable in currently accepted regimes. Dan has researched the effect of buffering these solutions and has recommended that this be universally applied.

**A pharmacokinetic model for methotrexate dosing in cancer patients who are obese** (Sandhu G)

Geeta has commenced her PhD to develop a pharmacokinetic model for methotrexate dosing in cancer patients who are obese. Methotrexate is a high risk drug for many cancer patients and dosing in obesity is currently poorly described. Geeta’s research has the potential to help guide clinicians in dosing this potentially toxic drug in a high risk group of patients.

**Other Research**

**Adherence to discharge medication plan in 120 patients post discharge: an evaluation and analysis for risk factors for non-adherence** (Winckel K, Wu X)

The Pharmacy Department was also involved in dispensing for 100-120 assorted clinical trials in 2012:

**Dr Christine Carrington**

- Chemotherapy induced nausea and vomiting in patients receiving chemotherapy for non-hodgkin's lymphoma (NHL)
Dan Mckavanagh (co-investigator, senior pharmacist cancer services):

- Screening tool for elderly cancer patients comparison
- Validating a novel, low cost, automated malnutrition screening system as a predictor of nutritional risk in the Oncology Day Care Unit
- Body Size & Chemo in Breast Cancer Study

G Sandhu
- An evaluation of methotrexate in obesity, and development of a model to predict optimal dosing

S Unwin
- Involved in six trials in infectious diseases (new antifungals, new vaccines, new monoclonal antibodies, and new antibiotics)

Awards and Prizes

Dr Christine Carrington
- Best of the best oral presentation for supportive care COSA 2012 conference, Clinical Oncological Society of Australia

Major Grants and Financial Support

Funding from other sources: $570,000

National and International Presentations

Belinda Badman
- SHPA Critical Care Seminar

Dr Christine Carrington
- ISOPP, Melbourne
- SHPA Conference, Canberra

Frank Czajkowski
- SHPA Conference, Canberra

Judith Coombes
- National Medicines Symposium

Andrew Hale
- Pharmacist Prescribing Collaborative of Australia and New Zealand (PPCANZ)
- Health Workforce Australia, Melbourne
- NZ Pharmacist Prescribing Course, Auckland University
- SHPA Conference, Canberra

Lynette Loy
- SHPA Conference, Canberra
- PA Health Symposium
- QUT/Peking Uni Health service management study program

Cathy Lynch
- SHPA Conference, Canberra

Victoria Marlton
- SHPA Conference, Canberra

Geeta Sandhu
- Australia and New Zealand Children’s Oncology Group Conference

Jo Sturtevant
- SHPA Conference, Canberra

Sean Unwin
- QH Intern Pharmacist Training

Karl Winckel
- SHPA Conference, Canberra
- National Medicines Symposium

Amanda Williams
- SHPA Conference, Canberra
Physiotherapy Department

The Princess Alexandra Hospital Physiotherapy Department had an exceptionally productive year during 2012. The Department was awarded over $1.2 million competitive research grants from bodies including the National Health and Medical Research Council and HP Research Grants Scheme. Notably, two members of Physiotherapy staff received small project grants from the PA Research Foundation.

The Department generated 18 publications in high-quality journals such as Heart & Lung and The Archives of Physical Rehabilitation. These publications included eight original articles, two review articles, one Letter to the Editor, and seven published conference abstracts. Members of staff also contributed to the authorship of three book chapters.

Research activity within the Department continued to increase, with 27 studies in progress, and four members of staff continuing their higher research degrees. During 2012, Physiotherapy staff delivered multiple national and international conference presentations, including invited presentations, and showcased aspects of their research activity during PA Week.

The Physiotherapy Research Committee continued to generate research interest amongst senior and junior staff, with monthly meetings including research skills seminars and presentations from guest speakers. The Department was also represented by attendance at Metro South Health Practitioner Research Collaborative meetings.

Kathy Grudzinskas
Director

Research Activities

Clinical Trials

**Modified conservative management with external rotation bracing versus early arthroscopic surgical intervention amongst young people with primary anterior shoulder dislocation: a randomised controlled trial** (Johnson A, McPhail S, Lam G, McMeniman M, Cockfield A, Bourke M, Siddiqui N, Frederiksen S, Ross M, Potts W, Stankunas P)

This multi-centre RCT aims to investigate arthroscopic surgical stabilisation versus conservative external rotation bracing for anterior shoulder dislocation in young people. Participant recruitment continued.

**Improving postural stability and reducing falls risk in people with Parkinson’s disease using textured insoles: a randomised controlled trial** (Kerr G, Davids K, Brauer S, Hatton A, Hennig E)

The aim of this study is to investigate whether long-term wear of textured shoe insoles can improve balance, walking ability and rate of falls in people with Parkinson’s disease. Funding has been obtained and recruitment of research personnel is in progress.

**The long-term effects of textured shoe insoles on balance, walking ability and function in people with Multiple Sclerosis** (Dixon J, Hatton AL, McKeon P, Warnett R, Rome K, Martin D)

The aim of this study is to investigate whether long-term wear of textured shoe insoles can improve balance, walking ability and daily activity in people with Multiple Sclerosis. Funding has been obtained and recruitment of a PhD student is in progress.

Other Research

**Preparation for discharge from a rehabilitation unit: patient perceptions and functional outcomes** (Mitchell J, White S, Kuys S, Low Choy N)

This study aims to determine: patients’ perception of their readiness to return home from a rehabilitation unit; if routine physiotherapy assessments can determine the types of activities patients can perform at home; if preparations made by the rehabilitation team meet patients’ needs. Data collection was ongoing during 2012.
Practice based evidence for geriatric rehabilitation: 
This study aims to review the clinical outcomes of patients admitted to the Geriatric and Rehabilitation Unit at PAH over the past 7 years (2005 – 2011) using data collated in a database each admission. Data collection has been completed; two abstracts published.

The effect of Nintendo Wii-Fit on outcomes in people with lower limb injuries (Kuys S, Tonks P, McPhail, O’Hara M)  
The Nintendo Wii fit can be used to assist in balance and coordination training. This study aims to examine the effectiveness of this sort of training on outcomes for patients with lower limb injuries. Data collection and analysis complete; manuscript in preparation.

The use of spaced retrieval, errorless learning and vanishing cues in retraining sit to stand in patients with dementia during hospitalisation (Dolecka U, Kuys S)  
The study aims to determine what sit to stand strategies are used by people with dementia and healthy elderly people. An observation tool will be developed and validated to examine use of cognitive methods in re-training of sit to stand in people with dementia.

Seating for patients in general medicine wards (Kuys S, Dolecka UE, Morrison CA)  
The aim of this study is to identify seating needs across the General Medicine and develop specifications for bedside chairs.

Functional level on discharge from acute medical wards: implications for service delivery (Kuys S, Crouch T, Dolecka U, Choy NL)  
This study aims to: determine activity limitations and difference between patients requiring further rehabilitation and those discharged home; evaluate BOOMER as a potential measure in an acute care setting; and examine confidence with mobility in those referred for rehabilitation and those discharged to home.

Mobility levels of elderly people in acute medical wards (Kuys SS, Dolecka UE, Guard A)  
This 3-stage study aims to identify: activity levels of people admitted for an acute hospital medical admission; whether environmental change involving provision of bedside chairs improves functional activity level during hospitalisation; effects of additional exercise and mobility program.

Validity and predictive value of the BOOMER and DEMMI in the Medical Assessment and Planning Unit (MAPU) (Lindsay J, Jeffress, M, Dolecka U, Trad F, Bryce A, Kuys S)  
This study aims to validate the DEMMI and BOOMER as a measure of mobility in elderly patients specifically in the MAPU setting and determine the predictive utility of these measures when assessing likelihood of discharge at 48hrs, need for admission to other hospital wards, and risk of representation to hospital. Data collection completed.

Incidence and prevalence of incontinence in patients with heart failure (Hwang R, Chuan F, Kuys S)  
This study will review the literature on urinary incontinence (UI) in patients with heart failure, leading to a survey investigating prevalence of UI in patients with heart failure, UI and compliance with medication, and effect of UI on quality of life. Manuscript accepted for publication.

Prevalence of falls and musculoskeletal conditions in elderly individuals with chronic heart failure: an observational study (Adsett J, Hwang R, Hogden A, Kuys S, Mandrusiak A, Peters R)  
This project is an observation study which aims to explore the prevalence of falls and musculoskeletal conditions in a community dwelling heart failure population and identify common falls risk factors that differ between fallers and non-fallers with heart failure. Data collection completed and manuscript under review.
Arm during the acute/subacute stage of recovery. The aim of this study is to assess the efficacy of the SMART Cresswell A [Hayward K: PhD candidate on project] to train reaching post stroke (Brauer S, Carson R, Barker R, Ninnes E, Barker R)

Effectiveness of education on urinary incontinence in people with heart failure: an observational study (Chuan F, Hwang R, Kuys S, Marsh C, Peters R)

This is an observation study to explore the prevalence of urinary incontinence in people with heart failure after receiving educational materials, and compliance with medication and quality of life in people with urinary incontinence after receiving educational materials. Data collection completed.

Lymphoedema in patients following breast surgery (Manning S, Kuys S, Pinkham L)

This project will collect data on the prevalence of lymphoedema 6, 12 and 24 months following the breast surgery. The results of the project will be used to develop follow up service for this group of patients. Data collection completed; data analysis underway.

Systematic review on axillary web syndrome (Yeung I, Kuys S, McPhail S)

The aim of this review is to synthesize the evidence on the epidemiology incidence and prevalence, predisposing factors interventions and outcomes for AWS following axillary lymphadenectomy for breast cancer and melanoma. Writing in progress.

Reliability, validity and predictive capacity of the Queensland Wheelchair Skills Assessment Tool (QWSAT) (Gollan E, Simmons J, McPhail S)

The aim of the project is to develop and validate a clinically relevant, client focussed wheelchair skills assessment tool to assess wheelchair skills of people with spinal cord injury. The QWSAT will be used to assist clinical decision making processes with respect to rehabilitation goals and equipment prescription.

Drive Your Own Recovery (DYOR) (Hayward K, Mitchell J, Ninnes E, Barker R)

This study aims to assess the feasibility of running the drive your own recovery for the upper limb project in an acute rehabilitation setting.

SMART Arm: The efficacy of a novel, non-robotic intervention to train reaching post stroke (Brauer S, Carson R, Barker R, Cresswell A [Hayward K: PhD candidate on project])

The aim of this study is to assess the efficacy of the SMART Arm during the acute/subacute stage of recovery.

Understanding lateral reactive balance control mechanisms in older adults with hip osteoarthritis (Hatton AL, Brauer SG, Crossley KM, McGregor AL)

This project aims to investigate how hip osteoarthritis affects people's ability to respond to a sudden loss of balance in a sideways direction by exploring how the different body segments move and how the leg and trunk muscles work to keep individuals upright. Funding and ethical approval have been obtained.

Evaluation of a multidisciplinary early intervention group for patients in minimally conscious states (Seeto T, Griffin E, Budden C, Kuys S, McPhail S)

The aim of this project is to assess clinical change in patients attending a twice-weekly multidisciplinary rehabilitation group. This study was completed during 2012 and the findings have been submitted for publication.

Outcomes following inpatient stay within the Geriatric and Rehabilitation Unit (Burgess K, Kuys S, McPhail S, Varghese, P)

The aim of this study is to explore outcomes in older people following inpatient stay within the Geriatric Rehabilitation Unit, over a seven year period. Data analysis was completed. Findings were disseminated at national conferences and published within conference proceedings.

Does a multidisciplinary group education program influence the outcome in management of patients with non-specific chronic low back pain (Windred T, Matthews L, McPhail S)

The study is investigating whether participation in a multidisciplinary group education program improves outcomes for patients with chronic neck and back pain. Ethics approved and data collection commenced.

Retrospective review of traumatic management (Wadsworth B, Hill V, Loy L, Atresh S, Daniel D)

This review investigates the incidence of conservative and surgical fixation in motor complete acute tetraplegic patients during a 10 year period and the incidence of neuropathic pain medication use of these patients as of 2011.


Review of the literature informed development of a clinical guide. This guide was trialled for 9 months and feedback has been provided. Currently this guide is being converted to a clinical pathway for use in SCI.

Early Activity in Intensive Care (Nickels M, Watson L, McPhail S)

This study aims to establish baseline data regarding the time taken to commence early mobility activities within ICU and to determine PAH ICU staff opinions regarding the present status of early activity in ICU. A staff survey was distributed and completed in 2012. Analysis is underway.
Queensland Clinical Trials & Biostatistics Centre

The Queensland Clinical Trials & Biostatistics Centre (QCTBC) is a school centre within the School of Population Health, The University of Queensland. The Centre was formed in September 2009 with the goal of promoting and running high quality clinical, non-clinical and biostatistical methodological studies, both locally and internationally.

QCTBC provides the necessary expertise and infrastructure to design, conduct, and facilitate high quality clinical trials, non-trial clinical studies and biostatistical research with both academic and industry collaborators. All professionals of the Centre are GCP trained, and conduct clinical studies strictly following the regulatory requirements and pharmaceutical industry standard. The Centre is actively involved in running Phase 1, -2 and -3 clinical trials in various therapeutic areas, leading several clinical studies including the evaluation of cardiometabolic effects of new anti-diabetes drug (GLP-1R agonists), identification and validation of ‘omics’ based biomarkers to understand the progression to auto-immune and metabolic diseases, and clinical epidemiological studies in diabetes and cardiovascular diseases using large longitudinal data. These studies are conducted in close collaboration with reputed international research institutes and pharmaceutical companies.

The Centre is now playing a pivotal role in the development of Australia’s translational research capabilities, and is one of the principal members of Therapeutic Innovation Australia’s TIA-QLD Node, established in 2011 to provide access to coordinated and integrated translational health pathways for researchers. The Centre has achieved international prominence through numerous collaborations with international institutes and multinational pharmaceutical companies. In addition, the Centre provides high quality consulting services to clinical researchers and bio-pharmaceutical companies.

Associate Professor Sanjoy K Paul
Director

Research Activities

Clinical Trials

Telehealth for residential aged care facilities: a pragmatic randomised controlled trial (Gray L, Martin-Khan M, Beattie E, Edirippulige S, Russell T, Smith A, Theodoros D, Scott I, Hubbard R)
The aim of this NHMRC-funded trial is to examine the effectiveness of telehealth to reduce utilisation of external health services by residents in long term care facilities. In partnership with University of Queensland Centre for Research in Geriatric Medicine.

BLING2 Trial (Beta Lactam Infusion Group) (Lipman J, Webb S, Roberts J, Dulhunty J, Davis J)
This NHMRC-funded trial is a multi-centre, double-blinded, phase IIb, randomised controlled trial of continuous beta-lactam infusion compared with intermittent beta-lactam dosing in critically ill patients. In partnership with: Burns, Trauma and Critical Care Research Centre, UQ / RBWH.

SMARRT Study: SaMpling Antibiotics in Renal Replacement Therapy (Roberts J, Lipman J, Peake S, Roberts M, Paul S, Turnidge J)
The aim of this NHMRC-funded multi-national, prospective, pharmacokinetic study is to develop optimised antibiotic dosing guidelines for ICU patients with life-threatening infections. In partnership with: Burns, Trauma and Critical Care Research Centre, University of Queensland / Royal Brisbane & Women’s Hospital (UQ / RBWH).

Promoting activity for frail aged in post-acute hospital settings: a randomised controlled trial of accelerometry (Gray L, Peel N, Cameron I, Karunanithi M, Paul S, Crotty M, Kurrie S)
The primary aim of this NHMRC-funded clinical trial is to evaluate the efficacy of the use of accelerometry in clinical practice to promote activity in frail older people in post-
collaboration with: Peking University, Chinese Academy of Progression to metabolic diseases and ovarian cancer. In techniques to identify ‘omics’ based biomarkers that predict to develop applied statistical methods and robust analysis The Centre's Director is leading a programme of studies 2 diabetes, and ovarian cancer (Paul S, Thomas R, Rice G, Ji L) The aim is to use 3T mpMRI of the prostate as a triage for the need to perform biopsies of patients with a high, or ‘concerning’ PSA level. If proven this may lead to improved prostate screening protocols.

Phase III ZXP Trial (Li J et al., for the Evidence-Based Medical Research of Xiaoke Pill Study Group) QCTBC, in collaboration with the Peking University People's Hospital, China, has recently completed a large phase III clinical trial to study the safety and efficacy of a traditional Chinese medicine with glibenclamide to treat T2DM patients. The primary trial report has been accepted for publication in PLoS One (Ji L and Paul S, joint first authors). Funded by Guangzhou Zhongyi Pharmaceutical Co Ltd, China.

Other Research

Therapeutic Innovation Australia – Queensland Node (Smith M, Paul S, Murray M, Rice G, Brown M, Griffiths L) The Centre's Director is a co-principal investigator of the TIA-Queensland Node project with the goal of establishing a unique Queensland-based facility for translating university-based life sciences discoveries into high value products for commercialisation. TIA-QLD Node was awarded a highly prestigious Smart Futures Fund grant of $2.4 million from the Queensland Government in 2012.

Evaluation of cardio-metabolic effects of treatment with GLP-1R agonists in patients with type 2 diabetes (Paul S) The Centre's Director is the lead investigator in a major research project with a programme grant from Amylin Pharmaceuticals to evaluate the cardio-metabolic effects of a new class of anti-diabetes drugs – GLP-1 receptor agonists. The technical support for this study is provided by Eli Lilly, USA and the University of North Carolina, USA.

Identification and validation of novel serum proteomic biomarkers to predict progression to type 1 diabetes, type 2 diabetes, and ovarian cancer (Paul S, Thomas R, Rice G, Ji L) The Centre's Director is leading a programme of studies to develop applied statistical methods and robust analysis techniques to identify ‘omics’ based biomarkers that predict progression to metabolic diseases and ovarian cancer. In collaboration with: Peking University, Chinese Academy of Sciences and Guangzhou Zhonghi Pharmaceutical Co Ltd, China; UQ Diamantina Institute; UQCCCR and Agilent.

Research program in clinical epidemiology and longitudinal data (Paul S, Best J, Maggs D, Majeed A, Khunti K) The Centre's Director is leading a research program to evaluate the long-term effects of glycaemic and other risk factors on cardiovascular and mortality risks in patients with diabetes. In collaboration with: University of Minnesota, USA, Imperial College London, University of Leicester, Amylin Pharmaceuticals LLC, and Novo Nordisk A/S.

Development of early warning systems for hypoglycaemia (Paul S, Shaw J, Russell A) The aim of this project is to develop methodologies and techniques to analyse continuously monitored blood glucose levels in patients with diabetes, with the aim of developing a system to warn patients about incipient hypoglycaemia or hyperglycaemia. In collaboration with: PAH Diabetes and Endocrinology Department, and Baker IDI Heart and Diabetes Institute.

Pharmacokinetic / Pharmacodynamic (PK/PD) modelling and the development of a prediction based protocol for clinical guidelines in critical care (Paul S, Klein K) With NHMRC funding to conduct an international study to develop guidelines for antibiotic dosing in critical care patients, Associate Professor. Paul is leading the methodological developments and analysis aspects to establish robust algorithms to support the development of clinical guidelines; conducted in collaboration with Burns, Trauma and Critical Care Research Centre, UQ / RBWH.

Awards and Prizes

Associate Professor Sanjoy Paul
- Visiting Professor Award, University of Leicester, UK
- Honorary Researcher Award, Imperial College London, UK

Major Grants and Financial Support

Total NHMRC funding: $58,562
Other competitive funding: $159,500
Funding from commercial studies: $126,741
Funding from other sources: $259,853

National and International Presentations

Associate Professor Sanjoy Paul
- American Diabetes Association Congress
- BioPharma Australasia Convention
- Advanced Training Seminars for Registrars, Princess Alexandra Hospital
- PA Health Symposium
Queensland Melanoma Project

The Queensland Melanoma Project (QMP) was originally established at the Princess Alexandra Hospital in 1963 by Dr Neville Davis to investigate the incidence of melanoma and outcomes from treatment. Over the years the project has been involved in a number of international, national and local trials. From the multi-disciplinary clinic involving General Surgeons (Surgical Oncology), Plastic and Reconstructive Surgeons, Medical Oncology, Radiation Oncology and Allied Health, patients suitable for research projects are assessed and managed by the team in the QMP. In addition to the clinical aspects, the QMP also have an active research lab which is looking at biomarkers in patients with metastatic melanoma.

In 2012, the Project was involved in three Phase III, one Phase II, and two Phase I clinical trials. The QMP has an active collaboration with the Dermatology Department at Princess Alexandra Hospital (Professor Peter Soyer) and Queensland Institute of Medical Research (Professor Adele Green AC), and received a project grant from the Queensland Cancer Council which will help fund a project to identify biomarkers in patients with Stage III melanoma. The Project continues to collect prospective data on all patients undergoing sentinel lymph node biopsies, nodal surgery or isolated limb infusions.

Associate Professor B Mark Smithers
General Surgeon, Associate Professor - The University of Queensland Department of Surgery, Director Queensland Melanoma Project Princess Alexandra Hospital, Chairman Upper GI and Soft Tissue Unit Princess Alexandra Hospital

Research Activities

Clinical Trials

**Multicenter selective lymphadenectomy for melanoma Trial II** (Smithers M, Barbour A, Bayley G, Allan C)
The objective of this study is to determine whether LM/SL and CLND in cutaneous melanoma subjects with evidence of SN metastases by histopathologic or molecular evaluation will lead to longer melanoma-specific survival than that observed after LM/SL alone and postoperative observation with serial nodal ultrasound.

**A Phase III, randomised trial of surgical resection with or without BCG versus best medical therapy as initial treatment in stage IV melanoma** (Smithers M, Barbour A, Bayley G, Allan C, Walpole E, Atkinson V, Joubert W, Burmeister B)
The objective of this study is to examine the impact of surgical resection versus medical therapy as initial treatment for patients with Stage IV melanoma.

**Efficacy of recMAGE-A3 + AS15 ASCI in the overall population of patients and to evaluate other indicators of efficacy and safety of recMAGE-A3 + AS15 ASCI such as overall survival, distant metastasis free survival, 1-year, 2-year and 3-year DFS rates and the immune response to the ASCI.**

**Intralesional (IL) PV-10 and hypofractionated radiotherapy in patients with recurrent and or metastatic malignant melanoma** (Smithers M, Barbour A, Bayley G, Allan C, Foote M, Burmeister B, Pullar A)
The primary objective of this study is to investigate the effectiveness of intralesional (IL) PV-10 followed by hypofractionated radiotherapy for the locoregional treatment of metastatic melanoma.

**Study of the GSK22416568A antigen specific cancer immunotherapeutic in patients with unresectable and progressive metastatic cutaneous melanoma** (Smithers M, Barbour A, Bayley G, Allan C, Atkinson V, Burmeister B)
The two co-primary objectives of this study are to document and to characterize the severe toxicity and clinical activity of the recNY-ESO-1 + AS15 ASCI in patients with NY-ESO-1-positive metastatic cutaneous melanoma.
**PAT-SM6 Monoclonal antibody in patients with recurrent in-transit cutaneous melanoma** (Smithers M, Barbour A, Bayley G, Allan C, Atkinson V, Burmeister B)

The primary objective is to establish the safety profile of a single dose of the anti-GRP78 monoclonal antibody PAT-SM6 in patients with recurrent in-transit cutaneous melanoma.

**Other Research**

*Medium risk primary melanoma project*

Conducted in conjunction with the Queensland Institute of Medical Research, the objective of this study is to assess whether different personal factors such as age, sex, or specific individual behaviour such as sun exposure, diet and finally your quality of life can influence or predict the spread of melanoma in terms of possible metastasis and death.

*Molecular markers of sentinel node invasion in melanoma*

This study is being conducted in conjunction with the University of Queensland using the existing database managed through the QMP office. The objective of the study is to look at different markers in the tumour to see if they could predict the invasion of the sentinel node and the severity of the melanoma.

**Melanoma Database – Sentinel Node and Nodal Dissection** (Smithers M, Barbour A, Bayley G, Allan C)

Established in 2004, data have been collected on all patients undergoing a sentinel lymph node dissection or complete lymph node dissection for metastatic melanoma. Retrospective data have been collected since 1997.

**Melanoma - Isolated Limb Infusion Database** (Smithers M, Barbour A, Bayley G, Allan C)

Data have been collected on all patients who have undergone an isolated limb infusion at the Princess Alexandra Hospital since 1997. The majority of these procedures have been for metastatic melanoma.

**Biomarkers for stage III melanoma recurrence and response to radiotherapy** (Barbour A, Smithers M, Wayte N, Frankel A, Burmiester B, Pavey S, Lampe G)

Our overriding aim is to improve the management and treatment outcomes of stage III melanoma patients by identifying low and high risk recurrence groups using biomarkers identified in this study. The aims are to perform global gene expression analyses in stage III melanoma patients treated by surgery alone and to develop gene classifiers.

**Major Grants and Financial Support**

Funding from commercial studies: $143,451

Funding from other sources: $1,600

**National and International Presentations**

Dr Chris Allan
- Clinical Oncology Society of Australia, Brisbane

Associate Professor Mark Smithers
- Inaugural National Melanoma Meeting, Perth
The Queensland Spinal Cord Injuries Service (QSCIS) sits within the Princess Alexandra Hospital Division of Rehabilitation and consists of the Spinal Injuries Unit (SIU), the Transitional Rehabilitation Program (TRP), and the Spinal Outreach Team (SPOT). All three QSCIS services have active research programs.

The QSCIS aims to assist individuals who have suffered spinal cord injury to reach their maximum potential, and stay healthy. The QSCIS 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.

Dr Sridhar Atresh
Director, QSCIS

Spinal Injuries Unit (SIU)

The SIU is the only specialist spinal injuries unit in Queensland and offers both acute and rehabilitation services. The interdisciplinary team is currently involved in three international clinical trials.

Research Activities

Clinical Trials

SCIPA (Spinal Cord Injury and Physical Activity) Hands-On
(QSCIS Staff: Geraghty T [Principal Investigator], Tsai P [Co-investigator], Jones R and Pick V. [Research Nurse]; Cullen, C [Intervention Therapist], Wallace M [Blinded Assessor])
A randomised controlled trial comparing the relative effectiveness of functional electrical stimulation (FES)-assisted exercise on an instrumented workstation with standard care in tetraplegic patients undergoing inpatient rehabilitation. Recruitment to this study will be completed by December 2013 followed by completion mid 2014. Funded through The Victorian Neurotrauma Initiative.

COSAQ: (CPAP for Obstructive Sleep Apnoea in Quadriplegia)
(QSCIS Staff: Atresh S [Principal Investigator], Tsai P [Co-investigator], Deuce B [Co-Investigator]; Jones R and Pick V [Research Nurse], Lewis J [Blinded Assessor])
An international, multi-site, randomised controlled trial to determine the effect of nocturnal nasal continuous positive airway pressure (CPAP) treatment for obstructive sleep apnoea (OSA) on neuropsychological function, quality of life, autonomic dysfunction and breathing in people with acute quadriplegia. Due for completion in June 2014. Funded by The Institute for Breathing and Sleep.

SCIPA Switch ON (QSICS Staff: Atresh S [Principal Investigator], Jones R and Pick V [Research Nurse], Simmons J and Golan E [Intervention Therapist], Burgess K and Ungerer G [Blinded Assessor])
Electrical Stimulation: Acute care. Multi-centre, assessor-blinded, randomised controlled trial to determine the relative effectiveness of FES-cycling and passive cycling commenced early after SCI on prevention of musculoskeletal deterioration. Intervention will commence within four weeks of injury. This study opened for recruitment in September 2012.

National and International Presentations

Dr Sridhar Atresh
• ANZSCOS Annual Scientific Meeting, Poster Presentation: Let me Breathe, Melbourne
• Symposium Faculty of Medicine University of QLD
• Spasticity Special Interest Group Presentation Brisbane
• Grand Rounds Redcliffe Hospital Brisbane

M Coffey
• ANZSCOS Annual Scientific Meeting, Presentation, Coffey, M. & Oh, S: “Identifying risk factors that contribute to the classic upper limb position associated with cervical spinal cord injury at levels C3-6”, Melbourne

Dr Timothy Geraghty
• ANZSCOS Annual Scientific Meeting, Tsai P, Khatun M, Urquhart S, Geraghty T. Vascular and infection related spinal cord injuries: Comparison of neurological and functional outcome against trauma related spinal cord injuries after in-patient rehabilitation, Melbourne
Australian Institute for Bioengineering and Nanotechnology UQ, Invited Presentation, SCI in Queensland: the clinical perspective. SCI and Repair One Day Symposium

Dr Polly Tsai
• ANZSCOS Annual Scientific Meeting, Poster Presentation, Gollan, E. Development and Preliminary reliability and validity of the Queensland Evaluation of Wheelchair Skills (QEWS), Melbourne

Research Activities
TRP has continued to collaborate with the Spinal Outreach Team on research exploring long term outcomes among people with spinal cord injury including outcomes.

Clinical knowledge translation from specialist health practitioners to generalist health practitioners – evaluating a consultancy model of service delivery (Amsters D, Kuipers P, Kendall M, Lindeman M)
See SPOT report

Finding the new me: an exploration of personal identity following traumatic injury (Kendall M, Amsters D, Goddard K, Smith S, Kendall E, Morriss E, Hinchy K)
See ABIOS report

See SPOT report

Leisure therapy in the Spinal Injuries Unit- Using goal attainment as a measure of service delivery outcomes during rehabilitation (Martin K, Kendall M, Price G, Cox R)
See SIU report

Goal setting and attainment in the community setting: An evaluation of goal content, processes and outcomes (Kendall M, Ungerer G, Wallace, M)
Developed as a quality improvement initiative, this multi-stage project has involved the analysis of clinically generated goal content, processes and outcomes prior to and following the implementation of a group goal setting process. Data collection is complete. One manuscript has been accepted for publication. Three further manuscripts are in preparation.

Awards and Prizes
Soo Oh
• Poster Presentation Award, ANZSCOS

Transitional Rehabilitation Program (TRP)
The Transitional Rehabilitation Program (TRP) provides post-primary rehabilitation services for people with spinal cord injuries who have undergone inpatient rehabilitation in the Queensland Spinal Injuries Unit. TRP employs a research officer who assists the team to undertake research to inform clinical practice and service delivery.

During 2012, work continued on collaborative research with the Spinal Outreach Team, the Acquired Brain Injury Outreach Service and the Centre for Remote Health (NT) investigating the efficacy of consultancy as a model for translating clinical evidence in rehabilitation and aged care settings. This study is approaching completion and is expected to form the basis for the development of allied health consultancy training.

In collaboration with the Acquired Brain Injury Outreach Service, the Spinal Outreach Team and Griffith University, research has progressed exploring psychosocial models of care, in particular identity reconstruction. This study involved some collaborative work with Griffith University in developing online survey formats for research.

Greg Ungerer
Manager, TRP
Spinal Outreach Team (SPOT)

The Spinal Outreach Team (SPOT) is a community based allied health and nursing service which provides consultancy for people with spinal cord injury, family and community members as well as other health professionals. SPOT has two embedded research officers who assist the team to undertake research which is geared towards informing practical improvement of service delivery.

Kiley Pershouse
Manager, SPOT

Research Activities

**Long term outcomes after spinal cord injury in Queensland** (Amsters D, Pershouse K, Schuurs S, Kendall M, Barker R, Kuipers P)
The aim of this project is to document the trajectories of body function/structure, activities, participation and quality of life after spinal cord injury. Data collection and analysis has concluded. Preparation of peer reviewed publications based on the outcomes of this project is continuing.

**When do community nurses seek help? Factors influencing consultancy seeking for wound care in spinal cord injury** (Ladhams J, Schuurs S, Amsters D)
The aim of this project is to establish the factors which influence nurses to seek help when confronted with a client with spinal cord injury and secondary skin breakdown. An online survey instrument was rolled out across Queensland in 2012. Data have been collected from 50 participants and are currently being analysed.

**Clinical knowledge translation from specialist health practitioners to generalist health practitioners – evaluating a consultancy model of service delivery** (Amsters D, Kuipers P, Kendall M, Lindeman M)
The aim of this project is to establish the efficacy of “consultancy” as a vehicle for knowledge translation amongst allied health professionals. After conducting focus groups and key informant interviews a Q-Sort survey was developed which challenged participants to rank various characteristics of allied health consultancy. Data from this Q-Sort are currently being analysed.

**Utilisation and impact of environmental control units (ECUs) on quality of life of people with tetraplegia** (Myburg M, Schuurs S, Amsters D, Allan E)
The aim of this project is to investigate the long term utilization of ECUs and to investigate the reasons behind success or failure of these devices. Data were collected from 15 key informants in 2012. The data are currently being analysed.

**Evaluating the outcomes and impact of a custom seating service for people with complex wheelchair seating problems after spinal cord injury in Queensland** (Bayliss C, Maughan L, Slattery P, Mason O, Schuurs S, Amsters D)
The primary aims of this project are 1) to document longitudinal outcomes and impacts of custom seating interventions, and 2) to compare outcome and impact with resources utilised in producing them across the participant group.

**Finding the new me: an exploration of personal identity following traumatic injury** (Kendall M, Amsters D, Goddard K, Smith S, Kendall E, Morrriss E, Hinchy K)
See ABIOS report

National and International Presentations

Emily Allan
- Australian Rehabilitation Assistive Technology Association, Sydney
- International Spinal Cord Society, London

Jule Ladhams
- Reducing Avoidable Pressure Injuries Conference, Melbourne

Julianne Malt
- Inaugural Joint Service Spinal Cord Injuries Forum, Townsville

L-R: Emilie Gollan, Margo Coffey, Sue Urquhart, Soo Oh, Dr Tim Geraghty, Dr Sridhar Artesh, Susan Bathersby, Carey Bayliss, Emily Girvan, Elizabeth McDonald
The Princess Alexandra Hospital Radiation Oncology Department celebrated its 10th anniversary in January 2012. Radiation Oncology has steadily increased over the years on the PAH campus and 2012 was no different.

A fifth linear accelerator commenced service in April 2012, immediately becoming the “workhorse” for intensity modulated radiation therapy to the head and neck region and the prostate, and raising throughput to over 1,700 patients treated over the year. Of these, more than 400 were re-treatments, indicating that more patients than ever who survive one cancer are returning for treatment of recurrence or a new cancer. Managing re-treatments is both demanding and a challenge to Radiation Oncology health professionals.

Research activity increased with the higher numbers of patients and several new trials. There was a large increase in stereotactic treatments as a result of new technology, and this activity has spawned a wave of research activity involving these new therapies amongst Registrars and Radiation Therapists. 2012 saw the completion and writing up of the Volumetric Modulated Arc Therapy (VMAT) project which was sponsored by Queensland Health through a New Technology Assessment Grant. The project details the VMAT treatment of 68 patients with a variety of tumour sites. It concluded that VMAT is an efficient and cost-effective modality which benefits a special group of cancer patients having radiotherapy. The VMAT program will continue to be expanded in 2013.

Professor Bryan Burmeister
Director

Research Activities

Clinical Trials

**CT PET** (Porceddu S)
Prospective database collection of neck node positive head and neck cancer patients undergoing CT-PET guided management of the neck policy following definitive (chemo) radiotherapy. Currently open to accrual.

**Pmab / CSCCS** (Foote MC, Porceddu, S)
Open-Label, Uncontrolled, Phase II Study to Evaluate the Efficacy and Toxicity of Single-Agent Panitumumab in Patients with Incurable Cutaneous Squamous Cell Carcinoma. Closed to accrual in 2012.

**Radiotherapy followed by selective nodal dissection for bulky and/or inoperable nodal melanoma.** *(REFORM)* (Foote MC)
A phase I/II study of intralesional PV-10 followed by radiotherapy in the treatment of metastatic melanoma. Currently open to accrual.

**TROG 99.03 / ALLG NHLOW5** (Porceddu, S)
A Randomised Multicentre Trial of Involved Field Radiotherapy versus Involved Field Radiotherapy plus Chemotherapy for Stage I-II Low Grade Follicular Lymphoma. Closed to accrual in 2012.

**TROG 03.06 / TOAD** (Lehman, M)
A Collaborative Randomised Phase III Trial: The Timing of Intervention with Androgen Deprivation in Prostate Cancer Patients with a Rising PSA. (TOAD)
Closed to accrual in 2012

**TROG 05.01 / POST** (Porceddu, S)
Post-Operative Concurrent Chemoradiotherapy versus Post Operative Radiotherapy in High-Risk Cutaneous Squamous Cell Carcinoma of the Head and Neck.
Currently open to accrual

**TROG 07.01 / DCIS** (Harvey, J)
A phase III study of radiation dose escalation and fractionation in women with non-low risk ductal carcinoma in situ (DCIS) of the breast.
Currently open to accrual

**TROG 07.04 / LOUD** (Porceddu, S)
A Phase II Study of Cetuximab, Carboplatin and Concomitant Boost Radiotherapy for Locally Advanced Head and Neck Squamous Cell Carcinoma.
Closed to accrual in 2012.
**TROG 08.02 / Elderly GBM** (Foote, M)
A Randomized Phase III Study of Temozolomide and Short-course Radiation versus Short-course Radiation Alone in the Treatment of Newly Diagnosed Glioblastoma Multiforme in Elderly Patients. Currently open to accrual.

**TROG 08.05 / WBRT** (Burmeister, B)
Whole Brain Radiotherapy following local treatment of intracranial metastases of melanoma. Currently open to accrual.

**TROG 08.06 / STARS** (Pryor, D)
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. (Stars - Study Of Anastrozole And Radiotherapy Sequencing) Currently open to accrual.

**TROG 08.09 / RTN2** (Foote, M)
A Randomised Trial of Post-Operative Radiation Therapy following Wide Excision of Neurotropic Melanoma of the Head and Neck. Currently open to accrual.

**TROG 09.02 / CHISEL** (Mai, T)
A randomised phase III trial of highly conformal hypofractionated image guided (“Stereotactic”) radiotherapy (HypoRT) versus conventionally fractionated radiotherapy (ConRT) for inoperable early stage I non-small cell lung cancer. Currently open to accrual.

**TROG 09.03 / MP3** (Foote, M)
A Phase II Efficacy Study of Chemo-Radiotherapy in PET Stage II and III Merkel Cell Carcinoma of the Skin. Currently open to accrual.

**TROG 10.01 / BOLART** (Lehman, M)

**TROG 11.03 /P-LUNG GP** (Burmeister, B)
A randomised phase III trial of high dose palliative radiotherapy (HDPRT) versus concurrent chemotherapy and HDPRT (C-HDPRT) in patients with good performance status, locally advanced/small volume metastatic NSCLC not suitable for radical chemo-radiotherapy. Currently open to accrual.

**TROG 11.02 /SCORAD III** (Burmeister, B)
A randomised phase III study of single fraction radiotherapy compared to multifraction radiotherapy in patients with metastatic spinal cord compression. Currently open to accrual.

**Other Research**
*Biologically guided adaptive radiotherapy treatment planning for virally mediated head and neck cancer* (Brown E)
Ph D project. Currently open to accrual.

**Awards and Prizes**
*Dr S Porceddu*
- American Head and Neck Society and ANZ Head and Neck Scholar Award

**Major Grants and Financial Support**

Other competitive funding: $106,800
Funding from other sources: $68,200
National and International Presentations

Dr Gerard Adams
• 39th Clinical Oncology Society of Australia/International Psycho-oncology Congress, Brisbane

Emma Bennet
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Elizabeth Brown
• International Society of Radiographers and Radiation Therapists and Canadian Medical Radiation Therapists, Toronto, Canada

• Australian and New Zealand Head and Neck Society Annual Scientific Meeting, Brisbane

Professor Bryan Burmeister
• Australian Research and Data Managers Association ASM, Gold Coast

• 4th Asia Pacific Gastro-esophageal Cancer Conference, Singapore

• Inaugural National Melanoma Conference 2012, Fremantle, WA

• Trans Tasman Radiation Oncology Group Annual Scientific Meeting, Darwin

Dr Matthew Foote
• Cancer Council Queensland Brain Tumour Forum, Brisbane

• Faculty of Radiation Oncology ASM, Cairns

• Medical Oncology Group of Australia / COGNO ASM, Brisbane

• 4th Biennial Queensland Acoustic Neuroma Conference, Brisbane

• Australian and New Zealand Head and Neck Society Meeting, Brisbane

• 39th Clinical Oncology Society of Australia/International Psycho-oncology Congress, Brisbane

• Trans Tasman Radiation Oncology Group Annual Scientific Meeting, Darwin

Dr Margot Lehman
• Trans Tasman Radiation Oncology Group Annual Scientific Meeting, Darwin

Associate Professor Sandro Porceddu
• Duke University Cancer Institute, North Carolina, USA

• 39th Clinical Oncology Society of Australia/International Psycho-oncology Congress, Brisbane

• Australian and New Zealand Head and Neck Cancer Society Annual Scientific Meeting and International Federation of Head and Neck Otolaryngology Society, Brisbane

• 8th International Conference on Head & Neck Cancer, Toronto, Canada.

• Australia and New Zealand College of Surgeons Annual Scientific Meeting, Kuala Lumpur, Malaysia

• Australian Society of Plastic Surgeons and New Zealand Association of Plastic Surgeons

• Registrars Conference, Brisbane

• National Speech Pathology Head and Neck Workshop, Brisbane

• American Society for Therapeutic Radiology and Oncology (ASTRO) Multidisciplinary Head and Neck Cancer Symposium, Arizona, USA

• Trans Tasman Radiation Oncology Group Annual Scientific Meeting, Darwin
Radiation Oncology Mater Centre

Radiation Oncology Mater Centre (ROMC) continued with a strong focus on delivery of a high quality Radiation Oncology Service. The major achievement this year was the installation and commissioning of two replacement Linear Accelerators, supervised by a dedicated team of Medical Physicists. While these vital works presented challenges for all staff members, who worked collaboratively to reduce any impact this had on patient care, the Centre is now benefitting from four matched linear accelerators providing greater flexibility and efficiency.

Medical physicists from ROMC achieved the highest representation from the public sector in Queensland at the national conference for medical physics, with three oral and two poster presentations. Ms Desiree Edeling accepted the position of Clinical Nurse Consultant, Radiation Oncology for PAH/Mater, and Dr Poulsen was recognised by The University of Queensland for his scholarship and awarded a Professorship as from January 2013.

Professor Michael Poulsen
Director

Research Activities

Under the guidance of Kacy Baumann, the clinical trial coordinators (Adrienne See and Narelle Wallace) continued to deliver a high quality service for clinical trials. The most dramatic increase in research activity occurred within the radiation therapists, with a special mention of Rebecca Owen, who are involved in multiple research projects, had three papers published, and an increase in the number and quality of paper and poster presentations at national and international conferences. The nurses undertook a multisite study of individualised nursing care for patients receiving radiotherapy at the PAH, Mater and RBWH sites, with Dr Pauline Rose as the principal investigator.

Clinical Trials

**TROG 02.01**
A randomised clinical trial of surgery versus surgery plus adjuvant radiotherapy for regional control in patients with completely resected macroscopic nodal metastatic melanoma.

**TROG 03.01**
A randomised phase III study in advanced oesophageal cancer to compare quality of life and palliation of dysphagia in patients treated with radiotherapy versus chemoradiotherapy.

**TROG 03.04**
A randomised trial investigating the effect on survival and PSA control of different durations of adjuvant androgen deprivation in association with definitive radiation treatment for localised carcinoma of the prostate (RADAR).

**TROG 03.06**
A phase III study of the Timing of Intervention with Androgen Deprivation in prostate cancer patients with a rising PSA (TOAD).

**TROG 03.08**
A phase III international randomised trial of single vs. multiple fractions for re-irradiation of painful bone metastases.

**TROG 05.01**
Post-operative concurrent chemo-radiotherapy vs. post-operative radiotherapy in high-risk cutaneous squamous cell carcinoma of the head and neck (POST).

**TROG 07.01**
A randomised Phase III study of radiation doses and fractionation schedules in non-low risk ductal carcinoma in situ (DCIS) of the breast.
TROG 07.02: QUARTZ
Quality of life after radiotherapy and/or steroids (MRC LU24).

TROG 07.03: RadioHum
Radiotherapy with humidification in head and neck cancer.

TROG 08.02: GBM in the Elderly
A randomised phase III study of temozolomide and short-course radiation versus short course radiation alone in the treatment of newly diagnosed glioblastoma multiforme in elderly patients.

TROG 08.03: RAVES
A phase III multi-centre randomised trial comparing adjuvant radiotherapy (RT) with surveillance and early salvage RT in patients with positive margin or extraprostatic disease following radical prostatectomy.

TROG 08.04: PORTEC-3
Randomized Phase III Trial Comparing Concurrent Chemoradiation and Adjuvant Chemotherapy with Pelvic Radiation Alone in High Risk and Advanced Stage Endometrial Carcinoma.

TROG 08.05: Melanoma WBRT
Whole brain radiotherapy following local treatment of intercranial metastases of melanoma – a randomised phase III trial.

TROG 08.06: STARS
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.

TROG 08.09: RTN2
A randomised trial of post-operative radiation therapy following wide excision of neurotropic melanoma of the head and neck.

Merkel Cell
A phase I study of synchronous weekly carboplatin and radiation in Merkel Cell Carcinoma of the skin – a collaborative study between Brisbane, Melbourne and Newcastle departments.

Merkel Cell Ph II
Efficacy study of synchronous weekly carboplatin and radiation in merkel cell carcinoma of the skin.

NZGOG 0902: OUTBACK
A phase III trial of adjuvant chemotherapy following chemoradiation as primary treatment for locally advanced cervical cancer compared to chemoradiation alone.

TROG 09.03: MP3
A phase II efficacy study of chemo-radiotherapy in pet stage II and III Merkel cell carcinoma of the skin.

TROG 10.01 BOLART

TROG 11.01: SUPREMO
Selective Use of Postoperative Radiotherapy after Mastectomy: a MRC Phase III randomised Trial to assess the role of adjuvant chestwall irradiation in ‘intermediate risk’ operable breast cancer following mastectomy.

TROG 11.02: SCORAD III
A randomised phase III trial of single fraction radiotherapy compared to multifraction radiotherapy in patients with metastatic spinal cord compression.

Is tangential whole breast irradiation still the gold standard? 
(Cahill K)
An evidence based practice review.

The role of CBCT in prostate radiation therapy 
(Deegan T, Owen R, Holt T)

Extra dose delivered with on board imaging 
(Baines J, Cronin B, Owen R)

A dosimetric comparison of 3DCRT with IMRT for treatment of anal canal cancer 
(Owen R, Barry T, Baines J, Watson M, Daley T, Perez H)

Development and evaluation of an Advanced Practitioner in Palliative Radiation Therapy 
(Owen R, Job M, Holt T, Wright C)

The development of a specific palliative database to improve the palliative patient service at ROMC 
(Job M, Owen R, Holt T)

Other Research
RICC: Resilience in Cancer Care, A tailored strengths-based intervention to increase resilience, well-being and work engagement in cancer care workers 
(Poulsen M, Poulsen A, Sharpley C, Baumann K)

RT Survey and Framework Development for an Australian and New Zealand Medical Radiations Research Network 
(Owen R, Hilder B, Deegan T)

International survey to evaluate an advanced practitioner radiation therapist role in palliative radiation oncology 
(Owen R, Job M, Holt T, Wright C)
Major Grants and Financial Support

Other competitive funding: $1,106,866

National and International Presentations

Kacy Baumann
- 24th TROG ASM - Workshop, Darwin

Carole Brady
- 9th Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT), Sydney

Katelyn Cahill
- 9th Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT), Sydney

Brenda Cronin
- 9th Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT), Sydney

Dr Brigid Hickey
- 2012 RANZCR Annual General Meeting

Cathy Hargrave
- Queensland RT weekend, Gold Coast
- Bayes on the Beach 2012 Conference, Caloundra

Professor Michael Poulsen
- QCC Nursing Oncology Group, Brisbane
- Darling Downs Skin Cancer Symposium, Toowoomba
- Skin Cancer College Australasia, Surfer’s Paradise
- Australian Institute of Radiography’s QLD RT Conference, Gold Coast
- Cancer Australia Regional Forum, Brisbane

Dr Jonathan Ramsay
- COSA 2012
The research activities of the Princess Alexandra Hospital Radiology Department progressed in 2012 to include T3 translational research in collaboration with the Institute of Nuclear Medicine, University College of London, through Dr Ken Miles who holds appointments at Princess Alexandra Hospital and UCL. This collaboration will evaluate the implementation of imaging biomarkers into daily care of patients.

The proposed Private-Public Cyclotron facility will allow access to the International Trials of novel radiopharmaceuticals for PET Imaging.

In addition to ongoing T2 translation studies involving Interventionalist Dr Kendal Redmond (CORAL Study) and Dr David Leggett (SIRFLOX Study), various Radiologists provide contributor status to a wide variety of clinical National and International trials in association with hospital clinicians. Some of these include NHL 21, RATHL (ALLG trials), Brown FAT, GAP, Merkel cell PET Phase II, MDX1097 phase II, and DOCTOR trials.

There is ongoing trial research within the Department based on technological assessment and patient dose reduction. Studies of newer technologies such as CTCA are being studied with respect to technical factors and patient flow. Early work in patterns of referral and use of imaging is progressing in the current challenging funding models of care.

Collaborative work between Medical, Radiographic, Scientific, IT and Nursing staff is further developing research within the Department of Radiology.

Dr Susanne Jeavons
Director

**Research Activities**

**Clinical Trials**

**CORAL Study** (Redmond K, Mudge D)
Cardiovascular Outcomes with Renal Atherosclerotic Lesions. Randomised and multi-center two-group Clinical Trial to assess the best treatment for patients with high blood pressure and Renal Artery Stenosis: Stenting with anti-hypertensive medical therapy, compared to medical therapy alone.

**SIRFLOX Study** (Leggett D, Walpole E)
Randomised Comparative Study of FOLFOX6m Plus SIR-Spheres VS FOLFOX6m alone as first line treatment in patients with non-resectable liver metastases from colorectal cancer.

**Other Research**

Cross sectional imaging appearances of suspected HCC in patients with chronic liver disease undergoing ultrasound screening at Princess Alexandra Hospital. Are they AASLD “typical” (Avery A, Saad N)

Retrospective audit to determine the diagnostic accuracy of Primovist enhanced MRI in the identification of HCC in cirrhosis with explant liver histopathological correlation (Baird A)

Inclination of the odontoid process in Chiari I malformation: correlation with syringomyelia (Dehdari A, Saad N)
Radiographer Commenting Education Study (Neep M, Steffens T)

Evaluating the implementation of the modified trauma projection into clinical practice in the trauma setting (Neep M, Power M, McPhail, Saad N)

Functional MRI study in brain tumour patients (Ong B)

CT colonography radiologic-pathologic-endoscopic correlation (Ong B)

Awards and Prizes

Dr Samuel Kyle
• MGF Donnan Prize for the Best Candidate in Pathology
Royal Australian and New Zealand College of Radiologists

Dr Nolette Pereira
• HR Sear Prize for the Most Successful Candidate, Royal Australian and New Zealand College of Radiologists

Drs Jennifer Sommerville, Mitesh Gandhi, Benedict Panizza
• Toshiba Scientific Exhibit Prize, Royal Australian and New Zealand College of Radiologists - Asian Oceania Congress of Radiology

Drs Jennifer Sommerville, Mitesh Gandhi, Benedict Panizza
• Guerbet Best Registrar Exhibit, Royal Australian and New Zealand College of Radiologists - Asian Oceania Congress of Radiology

Tom Steffens
• Best Presentation Annual Scientific Meeting of Medical Imaging and Radiation Therapy

Christian Testa
• Australian and New Zealand Society of Nuclear Medicine
Radpharm Prize for Queensland, Australian and New Zealand Society of Nuclear Medicine

Major Grants and Financial Support

Other competitive funding: $15,100

National and International Presentations

Sally Ball
• Trauma & Acute Imaging Symposium, Gold Coast

Dr John Coucher
• Royal Australian and New Zealand College of Radiologists
- Asian Oceania Congress of Radiology, Sydney

Dr Sam Davis
• Royal Australian and New Zealand College of Radiologists
- Asian Oceania Congress of Radiology, Sydney

Luke Elliott
• RADaim, Gold Coast

Dr Mitesh Gandhi
• Royal Australian and New Zealand College of Radiologists
- Asian Oceania Congress of Radiology, Sydney
Dr Yi-Tung (Tom) Huang
• Royal Australian and New Zealand College of Radiologists - Asian Oceania Congress of Radiology, Sydney

Scott King
• Trauma & Acute Imaging Symposium, Gold Coast

Michael Mallouf
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Dr Ken Miles
• British Nuclear Medicine Society, UK
• International Cancer Imaging Society Meeting, UK

Gabrielle Neep
• RADaim, Gold Coast
• Weekly Lectures to Emergency Medical Officers
• Australasian Conference on Errors in Medical Imaging, Melbourne
• New Zealand Institute of Radiography Conference, Auckland
• Allied Health Professions National Conference, Canberra
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Wayne Nuss
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Megan Power
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Jit Pratap
• RADaim, Gold Coast

Daphne Prybyszczuk
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Ben Rowney
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Behrooz Sharifi
• International Conference on Signal Processing and Communication Systems, Gold Coast

Dr Zane Sherif
• Royal Australian and New Zealand College of Radiologists - Asian Oceania Congress of Radiology, Sydney

Dr Nivene Saad
• The New Zealand Society of Gastroenterology and NZNO Gastroenterology Nurses Section Annual Scientific Meeting, New Zealand.
• Royal Australian and New Zealand College of Radiologists - Asian Oceania Congress of Radiology, Sydney
• Australian Rheumatology Association Annual Scientific Meeting

Matthew Simpson
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Gary Smith
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Dr Jennifer Sommerville
• Royal Australian and New Zealand College of Radiologists - Asian Oceania Congress of Radiology, Sydney
• RADaim, Gold Coast
• Clinical Oncology Society of Australia

Tom Steffens
• Weekly Lectures to Emergency Medical Officers
• Annual Lecture to QAS
• Australasian Conference on Errors in Medical Imaging, Melbourne
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Sophy Warne
• Annual Lecture to QAS
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Kathryn Whiteman
• RADaim, Gold Coast

Jessica Williams
• Annual Scientific Meeting of Medical Imaging and Radiation Therapy, Sydney

Dr Chris Yu
• Royal Australian and New Zealand College of Radiologists - Asian Oceania Congress of Radiology, Sydney
Respiratory and Sleep Medicine Department

The Princess Alexandra Hospital Respiratory and Sleep Medicine Department operates the only public sleep disorders service within Metro South Health. This tertiary referral service receives approximately 1,900 referrals per year, making it the busiest sleep facility in Queensland Health.

Like most other hospital sleep facilities in Australia, the PAH Sleep Medicine service originated in the 1980s as a subsidiary of the respiratory laboratory. These origins reflected the increasing awareness with which sleep and respiratory function are often intertwined. As awareness of the impact of sleep disorders grew so has the service, which is currently operating as a 6-bed facility.

In addition to its research activities with Professor John Upham, Lung & Allergy Research Centre (LARC), the Department continued its collaboration with the UQ School of Information Technology and Electrical Engineering in its world leading research in complex analysis of snore related sounds to diagnose sleep disordered breathing, and the development of validation studies to commence in 2013.

Associate Professor Craig Hukins
Director

Research Activities

The research focus of the Respiratory and Sleep Medicine Department remains the immunology and pathogenesis of lung disease. Research collaborations continued in 2012 with Professor John Upham, Lung & Allergy Research Centre (LARC), The University of Queensland, and included local, national and international research collaborations. More information is included at Lung & Allergy Research Centre.

Professor Upham was successful in 2012 in competitive research grants and achieved numerous peer reviewed publications in this field, building on this collaborative research. Dr Luke Garske also embarked on a budding research career, taking 12 months’ leave to commence a PhD exploring the mechanisms of breathlessness in restrictive lung diseases with a particular focus on obesity.

Clinical Trials

A randomised controlled trial of low dose azithromycin in patients with poorly controlled asthma (Upham J)
This project is assessing the effects of low dose azithromycin in patients with asthma (NHMRC funded).

Immune responses to influenza vaccination in asthma and other chronic lung diseases (Upham J)

Major Grants and Financial Support

<table>
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Rheumatology Department

The Princess Alexandra Hospital Rheumatology Department performs clinical trials at various phases to assist the investigation of novel therapies, particularly in Rheumatoid Arthritis.

The Department is participating in a University of Queensland collaboration relating to Green Lipped mussel supplementation in osteoarthritis of the knee.

Dr Phillip Vecchio
Director

Research Activities

Clinical Trials

Golimumab, an anti-TNFα monoclonal antibody, administered intravenously, in subjects with active rheumatoid arthritis despite methotrexate therapy
A multicentre, randomized, double-blind, placebo-controlled trial.

Comparing the fully human monoclonal anti-TNFα antibody D2E7 given every second week with Methotrexate given weekly and the combination of D2E7 and Methotrexate administered over 2 years in patients with early rheumatoid arthritis
Prospective multi centre randomised, double blind, active comparator controlled parallel group study.

Long-term extension study of safety during treatment with Tocilizumab (MRA) in patients completing treatment in MRA core studies

Other Research

Evaluating the efficacy of nutraceutical compounds in patients with osteoarthritis of the knee – therapeutic outcome measures correlated to gastrointestinal integrity
A phase-1 randomised, comparison pilot trial.

Investigating the efficacy and safety of GlycOmega PLUS supplementation in the treatment of osteoarthritis of the knee
A Phase 2a double-blind randomised placebo-controlled study.

Major Grants and Financial Support

Funding from commercial studies: $5,000
The Princess Alexandra Hospital Speech Pathology Department marked an important milestone in 2012 in the development of its research culture and skills, with two further staff members enrolling in research higher degrees, raising the total to five staff members within the Department with PhDs or in progress towards higher degrees.

Dr Bena Cartmill was awarded a five year Office of Health and Medical Research Fellowship, which will allow a five year examination of treatment-related and service delivery factors in head and neck cancer patients receiving radiotherapy and/or chemotherapy. This study will assist in further enhancing the Department’s existing research profile both via publication and presentations at national and international conferences.

There were seventeen research activities in progress in the Department, involving most of the senior, advanced and consultant clinicians spread across all major clinical areas. Head and neck cancer and acquired brain injury continued to be the major research themes.

Staff members continued their involvement with a diverse array of multidisciplinary research projects across the hospital, while the Department as a whole strengthened its strong research ties with the Centre for Functioning and Health Research; the Metro South Health Practitioner Research Collaborative, through continuing leadership by the Chair, Advanced Speech Pathology Clinician Dr Jenny Lethlean; and The University of Queensland through joint Speech Pathology Research Fellow, Dr Emma Finch.

Wendy McCallum
Director

Research Activities

Clinical Trials

Randomized controlled cross-over Phase 3 trial comparing the new indwelling Provox Vega voice prosthesis with the currently used Blom-Singer Classic Indwelling voice prosthesis for voice rehabilitation after total laryngectomy (Hancock K, Ward E, Lawson N)
The project has resulted in a further published paper in 2012.

Other Research

Improving communication between health practitioners, students and patients with Aphasia (Finch E, Lethlean J, Fleming J, McPhail S, Brown K, Cameron A, McGovern D)
This project investigated the effects of introducing a communication partner training program on communication between people with aphasia, health professionals and health professional students. In 2012 the project resulted in 2 presentations and became the basis of a M Phil application by Ashley Cameron and further funding grant applications.

The major achievements of this study in 2012 were the publication of a further 3 papers and the awarding of an OHMR fellowship to Dr Bena Cartmill.

The effects of thrombolysis following ischaemic stroke on communication and swallowing outcomes (Finch E, Clark K, Short K, Smith L, Antonio M, Aitken P)
This pilot study investigated the communication and swallowing outcomes of patients who receive thrombolysis for acute ischaemic stroke. It has resulted in one literature review relating to knowledge gaps in the current research (in press).

Peri-operative insertion of indwelling voice prostheses (Johnson A, Hancock K, Lawson N, Coman S)
To date this has resulted in a poster presentation.
ASSIST Swallowing screening tool trial (Robinson K, Lawson N)
Research using this swallowing screen with stroke patients has been extended to use with the neurosciences population.

Treatment of head and neck cancer patients with dysphagia in Australia and USA (Lawson N, Langmore S)
Australian dysphagia therapy practices with head and neck cancer patients were surveyed and will be compared against international practices.

An investigation into the effectiveness of computer-based therapy for aphasia (Finch E, Hill A, Clark K)
This project suggested that computer-based aphasia therapy delivered by tablet computer may have potential as an adjunct to standard clinical practice for naming difficulties after stroke however identified some factors that need to be considered in implementation. The study has produced one publication.

An investigation into communication outcomes following brain tumour surgery (Finch E, Smith L)
The original funding grant has been supplemented with further funding to enable continued assessment of the outcomes of brain tumour surgery guided by fMRI on communication.

The evaluation of a tracheostomy simulation training program for speech pathologists (Bassett L, Ward E, Baker S, Hancock K, Hyde T)
The results of this very successful program have been presented at a number of forums and it has produced a publication.

Evaluation of a multidisciplinary early intervention group for patients in minimally conscious states (Seeto T, Griffin E, Budden C, McPhail S, Kuys S)
This is in the write up stage and has resulted in a couple of presentations. This transdisciplinary early intervention has proven a successful and enduring work practice.

Dysphagia following head and neck cancer management: Patient impact and related 3rd party disability (Ward E, Nund R, Scarinci N, Cartmill B, Porceddu S)
It has resulted in one abstract exploring insights and implications for speech pathology services for patient in the survivorship phase of head and neck cancer.

Understanding research experience and interests in Queensland Health speech pathologists: a pathway to enhance research capacity building (Finch E, Cornwell P, Ward E)
This study is providing a valuable baseline and has informed the speech pathology profession through a number of channels.

Development of a novel treatment approach for non-progressive dysarthria (Park S, Theodoros D, Cardell E, Finch E, Addis P)
This has proved to be a successful trial of intensive motor speech therapy which will now be expanded.

Development of an intervention package to help stroke patients live successfully with aphasia (Grohn B, Brown K, Finch E, Worrall L, Simmons-Mackie N)
The aim of this project was to design and evaluate the effectiveness of an early intervention program addressing individual needs in relation to living successfully with aphasia in a proactive, person-centred and goal-oriented process. It received a funding grant.

Remediation of receptive cognitive communication disorders following traumatic brain injury: A pilot trial (O’Callaghan A, Watter K, Addis P)
This study has trialled specific receptive language programs and is still collecting data.

Subacute speech pathology rehabilitation for adults with brain injury (Watter K, Finch E, O’Callaghan A)
This study is in the early design stages and will form the basis of a PhD project.

Awards and Prizes
Annie Johnson
• AH Poster Prize, ANZHNCS

Major Grants and Financial Support
Other competitive funding: $50,892.50
National and International Presentations

**Ashley Cameron**
- 15th International Aphasia Symposium Melbourne
- Metro South Allied Health Symposium

**Cassandra Budden**
- World Congress of Neurorehabilitation
- Metro South Allied Health Symposium

**Nadine Lawson**
- Speech Pathology Aust Annual Conference Tasmania
- ANZHNCS Brisbane
- FEES Workshop Perth
- FEES Introduction Workshop - 2 day
- FEES Advanced Workshop - 1 Day
- FEES Competency Program - Launch
- H&N Advanced Workshop

**Dr Bena Cartmill**
- ANZHNCS Brisbane
- H&N Advanced Workshop

**Annie Johnson**
- ANZHNCS Brisbane
- H&N Advanced Workshop

**Jenni Boxall**
- FEES Introduction Workshop - 2 day
- FEES Advanced Workshop - 1 Day
- H&N Advanced Workshop

**Kelli Hancock**
- H&N Advanced Workshop

**Kerrin Watter**
- Metro South Allied Health Symposium
In January, the Therapeutics Research Centre, UQ School of Medicine, welcomed Dr Elizabeth Ryan, a newly graduated postdoctoral fellow from the UK with experience in nanotechnology, to work on a Cancer Council funded project on skin delivery of therapeutic and diagnostic substances. The beginning of 2012 also saw the return of biophotonics expert, Dr Washington Sanchez Jr. Professor Vânia Leite-Silva returned once again from Brazil to complete work on zinc oxide penetration in human skin and to continue with her valuable mentoring of students.

The Centre continued to consolidate overlapping interests in therapeutics, toxicology and nanotechnology, with a steady output of publications and a number of invitations to speak at major international conferences. With several RHD students reaching advanced stages of their projects, and an influx of research funding commencing in 2013, productivity is expected to continue to expand.

The end of 2012 brought some exciting news, with the award of an NHMRC Program grant to commence in 2014 as well as NHMRC and PA Hospital Foundation project grants beginning in 2013. In December, the Centre farewelled loyal and long-serving laboratory manager, Jenny Ordonez, wishing her well for the future.

Inevitable delays are expected to be caused by a move to the Translational Research Institute in early 2013. Despite this, there will be many new opportunities arising from this exciting new research environment. A major goal for me in the coming year will be, as ever, to continue nurturing the careers of the talented people in my Centre.

Professor Michael S Roberts
Director

Research Activities

Research Themes

• Specific skin targeting by topically applied nano-delivery systems

• Drug transport and metabolism in skin, liver and other organs, including real-time confocal and multiphoton microscopic imaging

• The Toxicology of Nanomaterials

• Regional chemotherapeutic treatment by topical and direct administration of fluorescent anti-melanoma agents

• Pharmacodynamics in Liver Disease and in Liver Surgery

• Chemical structure – skin penetration relationships in topical drug delivery

• Biomarkers of acute renal toxicity in humans

• Pesticide poisoning

• Robust antibiotic dosing for critically ill patients receiving renal replacement therapy

Major Grants and Financial Support

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National and International Presentations

Dr Jeff Grice
- 2012 Annual Conference of the Australian Society of Cosmetic Chemists, Adelaide
- Australian College of Pharmacy conference, Brisbane

Dr Vania Leite-Silva
- 2012 Annual Conference of the Australian Society of Cosmetic Chemists, Adelaide

Xiaowen Liang
- Joint ASCEPT-APSA 2012 conference, Sydney

Dr Xin Liu
- 5th Advanced Optical Methods Workshop, Shenzhen, China
- Joint ASCEPT-APSA 2012 conference, Sydney

Adnan Mahmood
- Australian Society of Medical Research (ASMR) conference, Brisbane
- Australian Society of Microbiology (ASM) conference, Brisbane
- Zoonoses conference, Sydney

Professor Michael Roberts
- New York Society of Cosmetic Chemists International Symposium on Sun Exposure: Implications and Protection of Skin, New York, USA
- Advanced Delivery Strategies for Pharmaceuticals & Cosmetics, European Lifelong Learning Program/Erasmus Intensive Program, ISPB, Lyon, France
- Workshop on Advanced Multiphoton & Fluorescence Lifetime Imaging Techniques – FLIM 2012, Saarbrücken, Germany
- 5th Advanced Optical Methods Workshop, Shenzhen, China
- 13th Perspectives in Percutaneous Penetration International Conference, PPP2012: Pre-Conference Course Workshop, La Grande Motte
- 9th International Conference and Workshop on Biological Barriers – in vitro and in silico Tools for Drug Delivery and Nanosafety Research, Saarbrücken, Germany
- The combined 10th Asia-Pacific Microscopy Conference (APMC 10), the 2012 International Conference on Nanoscience and Nanotechnology (ICONN 2012) and the 22nd Australian Conference on Microscopy and Microanalysis (ACMM 22), Perth
- Australasian College of Toxicology and Risk Assessment, 5th Annual Scientific Meeting, Adelaide

Dr Washington Sanchez Jr
- Joint ASCEPT-APSA 2012 conference, Sydney
The Trauma Research Group brings together clinical and engineering expertise to tackle emerging issues in relation to the management of orthopaedic trauma at QUT’s Institute of Health and Biomedical Innovation (IHBI) and Princess Alexandra Hospital. 2012 was a productive year culminating in the award of an NHMRC grant in collaboration with Professor Dietmar Hutmacher addressing the healing of significant bone defects.

The Group expanded its presence outside IHBI, with Dr Roland Steck taking on the additional role of Deputy Director of the Medical Engineering Research Facility at The Prince Charles Hospital. The Group also moved into the Translational Research Institute, which has become a home for the Spinal Trauma Registry and the Trauma Database.

2012 ended with the establishment of the Integrated Trauma Centre led by Professor Schuetz as part of the Diamantina Health Partners. With a holistic view of trauma, the centre brings together Queensland’s brightest and best covering pre-hospital and hospital care, allied health and rehabilitation as well as prevention specialists. The goal of the Centre is to improve care for patients in our community by integrating clinical practise, research and education.

Professor Michael Schuetz
Professor of Traumatology

Research Activities

Building on the Adjunct appointment of Professor Claes, 2012 saw the commencement of the first collaborative research project between the Trauma Research Group and the Institute for Orthopaedic Research and Biomechanics (University of Ulm, Germany). Dr Tim Wehner, also from the University of Ulm, joined the Group on a six month visit funded by the German Research Council (DFG). Dr Vaida Glatt joined the Group in mid 2012 via Julius Wolff Institute in Berlin, Germany. Soon after arriving at the end of 2012, Dr Glatt was awarded a Vice-Chancellor’s Research Fellowship in recognition of her research achievements.

Clinical Trials

The reconstruction of large segmental bone defects using patient-specific tissue engineered constructs (Dickinson I, Hutmacher D, Schuetz M)

Can the healing of bone fractures in a small animal model be accelerated by inverse dynamization? (Epari, Claes, Steck, Schuetz, Ignatius)

Assessment of Pilon fracture reduction utilizing 3D reconstructions from 3T MRI data of both tibiae (Schmutz, Cowin, Nork, Schuetz)

Trauma Recovery: Identified Priorities by Stakeholders (TRIPS) (Aitken, Chaboyer, Richmond, Schuetz, Whitty, Douglas)

Regenerative potential of osteoblasts and mesenchymal stem cells for bone tissue engineering (Berner A, Hutmacher DW, Nerlich M, Schuetz MA)

Pre–Hospital spinal trauma management in Australia: decreasing complications, improving outcomes (Middendorp, Goss, Mehta, Atresh, Urquhart, Schuetz)

Large bone defects/Critical size bone defects (Hutmacher DW, Lynham A, Saifzadeh S, Schuetz MA, Rohner D)

Major Grants and Financial Support

Other competitive funding: $247,100
The Princess Alexandra Hospital Upper Gastro-intestinal and Soft Tissue Research Unit treats patients with oesophagogastric disease both malignant and benign as well as soft tissue tumours. The Unit, which sits within the PAH Division of Surgery, is the largest referral base for oesophagogastric cancer in Australia. A special interest of the Unit is minimally invasive surgery, and as a consequence it has a large experience of minimally invasive oesophagectomy with over 600 cases and an increased volume of minimal invasive gastric resections.

The Unit participates in a multi-disciplinary meeting and clinic for patients with gastric and oesophageal malignancy with the PAH Departments of Medical Oncology, Radiation Oncology and Allied Health. All data on these patients are collected in a prospective database. The Unit is involved in local, national and international clinical trials.

Associate Professor Andrew Barbour, Head of the Princess Alexandra Hospital Surgical Oncology Research Group, also leads The University of Queensland Surgical Oncology Unit and has a major interest in the molecular genetics to assess prognostic features and outcomes from patients with oesophageal cancer. There is continued collaboration with national and international units treating oesophageal and gastric cancer.

Associate Professor Andrew Barbour
General Surgeon, Associate Professor - The University of Queensland Department of Surgery,
Director Queensland Melanoma Project Princess Alexandra Hospital,
Chairman Upper GI and Soft Tissue Unit Princess Alexandra Hospital

Research Activities

Clinical Trials

**Intermediate and high risk localized, completely resected, gastro-intestinal stromal tumours (GIST) expressing KIT receptor: a controlled randomized trial on adjuvant Imatinib mesylate (Glivec) versus no further therapy after complete surgery** (Smithers BM, Gotley D, Barbour A, Walpole E, Thomson D, Woodward N, Joubert W, Atkinson V)
The aim of the study is to see whether taking Imatinib delays or stops the disease returning. This study is an international study. Recruitment has been completed and patients remain in follow-up.

**A randomized phase II trial of pre-operative Cisplatin, 5 Fluorouracil and Docetaxel or Cisplatin, 5 Fluorouracil, Docetaxel plus Radiotherapy based on poor early response to standard chemotherapy for resectable adenocarcinoma of the oesophagus and/or OG Junction. – DOCTOR** (Barbour A, Walpole E, Mai T, Smithers BM, Gotley D, Martin I, Thomson I, Thomson D, Woodward N, Joubert W, Atkinson V, Burmeister B, Harvey J)
The general aim of this study is to improve outcomes for patients that fail to respond to standard neoadjuvant chemotherapy and to evaluate toxicity. The study is designed as two single-arm phase II trials for patients that are PET-non-responders to induction chemotherapy (standard treatment).

The aim of this study is to investigate whether the addition of chemoradiotherapy to chemotherapy is superior to chemotherapy alone in the neoadjuvant setting by improving pathological complete response (pCR) rates in the first instance, and subsequently overall survival, in patients undergoing adequate surgery (D1 dissection) for resectable gastric cancer.
Comparison of pre and peri-operative immunonutrition to standard formula in patients undergoing surgical resection for oesophageal cancer (Smithers BM, Gotley DC, Barbour AP, Martin I)

The aim of this study is to evaluate the effect of pre and perioperative use of an immunonutrition product versus an isocaloric/isonitrogenous control on the incidence of infective and non-infective complications during hospital admission in patients undergoing oesophagectomy or oesophago-gastrectomy for resection of cancer.

The effect of neoadjuvant therapy on cardiopulmonary function in patients undergoing Oesophagectomy (Smithers BM, Ferris R, Hall A, Lee A)

The primary objective of this study is to determine the effect of neoadjuvant therapy on cardiopulmonary function in patients undergoing oesophagectomy.

Other Research


The aims of this study are to determine the genetic heterogeneity of oesophageal adenocarcinoma, to determine the best molecular motif for detecting prognostic difference amongst patients treated with surgery alone, to determine and validate biomarkers of response to pre-operative therapy.

Lymph nodes with metastatic oesophageal adenocarcinoma (Barbour A, Frankel A, Wayte N, Nancarrow D)

The aims of this study are to determine genetic heterogeneity between primary and secondary tumour sources, to determine biomarkers of prognosis and treatment response including high resolution DNA copy number changes, mRNA expression and methylation profiling and to identify genetic changes associated with cancer spread.

Preliminary investigation into DOCTOR trial OAC patient tumour samples: genetic investigation into PET response and biomarkers of CTX/CRT response (Barbour A, Frankel A, Wayte)

The aims of the study are to determine a molecular signature for PET response, to determine if there is a biological difference in tumours that underpin response to therapy and to determine the effect therapy has on the gene expression of tumours.

Randomised phase II study of preoperative chemotherapy versus chemoradiation therapy for resectable carcinoma of the oesophagus and gastro-oesophageal junction (Burmeister B, Barbour A, Smithers M, Walpole E, Gotley D, Martin I, Harvey J, Thomson D)

We aim to collect a total of 79 samples from patients with oesophageal adenocarcinoma who were participants in the Protocol 134/2000 a randomised phase II clinical trial of pre-operative chemotherapy compared with pre-operative chemoradiotherapy. We intend to extract DNA and RNA from these samples. A number of molecular investigations are planned for these samples.

PROBE-NET: The Progression of Barrett’s Esophagus to Cancer Network

This application brings together the seven major research teams in Australia with expertise in oesophageal cancer to form a multi-state, multi-disciplinary Centre of Research Excellence. All of the nodes have worked together collaboratively for the past 4 years, pooling their expertise in surgery, gastroenterology, endoscopy, epidemiology, biostatistics, basic science, health policy and translational research. The vision is to develop evidence-based strategies for reducing the burden of oesophageal neoplasia.

Oesophageal, Gastric and GIST Tissue Bank (Barbour A, Gotley D, Smithers BM, Wayte N, Frankel A, Thomson I)

The purpose of the tissue bank is to collect tumour tissue and blood on patients diagnosed with oesophageal, gastric or GIST malignancies.

Oesophageal Cancer Database and Quality of Life (Smithers BM, Gotley D, Martin I, Barbour A, Thomson I)

Established in 1997, the database includes all patients diagnosed with cancer of the oesophagus or OG Junction; there are 2120 patients. Data includes symptoms at presentation, investigations, pathology, management and follow-up. Quality of Life surveys have been conducted on all curative intent patients at baseline, 3, 6, 9, 12, 18, 24, 36, 48 and 60 months.

Gastric Cancer Database (Barbour A, Smithers BM, Gotley D, Martin I, Thomson I)

Established in 2006, data have been collected both retrospectively and prospectively since 2000. Data includes symptoms at presentation, investigations, pathology, treatment and follow-up. The database currently has 631 patients who have been diagnosed with gastric cancer.
Gastro-intestinal Stromal Tumour Database (Smithers BM, Gotley D, Martin I, Barbour A, Thomson I)
Established in 2006, data have been collected both retrospectively and prospectively since 2000. Data includes symptoms at presentation, investigations, pathology, treatment and follow-up. The database currently has 147 patients diagnosed with GISTs.

High Grade Dysplasia Database (Smithers BM, Gotley D, Martin I, Barbour A, Thomson I)
Established in 2006, data have been collected both retrospectively and prospectively since 2000. The database currently has 100 patients diagnosed with HGD.

Laparoscopic Adrenal Database (Gotley D, Smithers BM, Martin I, Barbour A, Thomson I)
Established in 1998, data have been collected prospectively on all patients undergoing a laparoscopic adrenalectomy. The database currently has 142 patients.

Laparoscopic Spleenectomy Database (Gotley D, Smithers BM, Martin I, Barbour A, Thomson I)
Established in 1998, data have been collected prospectively on all patients undergoing a laparoscopic spleenectomy. The database currently has 72 patients.

Achalasia Database (Gotley D, Smithers BM, Martin I, Barbour A, Thomson I)
Established in 1998, data have been collected prospectively on all patients undergoing a laparoscopic cardiomiyotomy for achalasia. The database currently has 202 patients.

Laparoscopic Fundoplication Database (Gotley D, Smithers BM, Martin I, Barbour A, Thomson I)
Established in 1991, data have been collected prospectively on all patients undergoing a Laparoscopic Fundoplication. The database currently has 4667 patients with quality of life on approximately 88% of patients.

Para-oesophageal Hernia Repair Database (Gotley D, Smithers BM, Martin I, Barbour A, Thomson I)
Established in 1991, data have been collected prospectively on all patients who have undergone a repair of a para-oesophageal hernia. The database currently has over 833 patients with quality of life measures in over 88% of patients.

Redo Hiatal Surgery Database (Gotley D, Smithers BM, Martin I, Barbour A, Thomson I)
Established in 1991, data have been collected prospectively on all patients who have undergone a redo hiatus hernia repair. The database currently has over 595 patients with quality of life measures in over 85% of patients.
Awards and Prizes

Associate Professor Mark Smithers
• Fellowship, Royal College of Surgeons of Edinburgh
• State of the Art Lecture, Association of Academic Surgeons

Associate Professor Andrew Barbour
• James IV Association Travelling Fellow, James IV Association

Major Grants and Financial Support
Funding from other sources: $254,959

National and International Presentations

Dr Ben Dodd
• Upper GI Cancer: Its difficult to Swallow, Brisbane

Professor David Gotley
• Australian and New Zealand Gastro-esophageal Surgeons Association & Sydney Upper Gastrointestinal Surgeons Joint Conference, Sydney
• Oesophagectomy Surgery Evening, Brisbane
• Associate Professor Barbour Andrew
• Australian and Medical Research Congress, Adelaide
• Oesophagectomy Surgery Evening, Brisbane
• Australasian Gastrointestinal Trials Group Annual Scientific Meeting, Sydney

Dr Michael Hii
• 4th Asia-Pacific Gastroesophageal Cancer Congress & Singapore Gastric Cancer Consortium, Singapore

Associate Professor Mark Smithers
• Association of Academic Surgeons, Los Vegas, USA
• Australian and New Zealand Gastro-esophageal Surgeons Association & Sydney Upper Gastrointestinal Surgeons Joint Conference, Sydney
• Developing a Career in Academic Surgery Course, Kuala Lumpur, Malaysia
• Royal Australasian College of Surgeons, Kuala Lumpur, Malaysia
• 4th Asia-Pacific Gastroesophageal Cancer Congress & Singapore Gastric Cancer Consortium, Singapore
• Oesophagectomy Surgery Evening, Brisbane
• Upper GI Cancer: It’s difficult to Swallow, Brisbane

Dr Iain Thomson
• Upper GI Cancer: It’s difficult to Swallow, Brisbane, Australia
• Australian and New Zealand Gastro-esophageal Surgeons Association & Sydney Upper Gastrointestinal Surgeons Joint Conference, Sydney
Urology Department

The Princess Alexandra Hospital Urology Department provides a leading tertiary referral service for patients across Queensland and Northern New South Wales particularly in uro-oncology, living donor kidney procurement, and prosthetic surgery.

During 2012 the Department continued its commitment to excellence in patient care with the establishment of a regular multidisciplinary team meeting for prostate cancer bringing together clinical staff and members of the Australian Prostate Cancer Research Centre – Queensland (APCRC-Q). This service and the uro-oncology multidisciplinary meeting were supported by the addition of a multidisciplinary team meeting co-ordinator, Ms Linda Crook.

The Department continued to provide the lead clinical service in the state for advanced renal and testicular cancer with vena caval resection and replacement and retroperitoneal lymph node dissection. With a focus on innovative training, the Department continued with a number of invited presentations and ongoing work into modular training techniques in robotic surgery and training and accreditation in laparoscopic donor nephrectomy.

A number of important collaborations were built in 2012. Collaborative work with the APCRC-Q continued and new collaborative research arrangements were formed with the Centre for Kidney Disease Research, based at The University of Queensland’s School of Medicine, and the Cancer Epidemiology Group at the Queensland Institute of Medical Research.

Visiting Medical Officer, Dr Eric Chung, was particularly productive within the Department, with more than 12 publications in the field of urological prosthetics and andrology during 2012.

Dr Simon Wood
Head of Department

Research Activities

**Clinical Trials**

**Denosumab on prolonging bone metastasis-free survival in men with hormone-refractory prostate cancer** (Wood S, Oleinikova I)
A randomised, double-blind, placebo-controlled, multicentre phase 3 study.

**To evaluate the safety and effectiveness of using the Litx BPH system in patients with lower urinary tract symptoms due to benign prostatic hyperplasia who are candidates for interventional therapy** (Wood S, Oleinikova I)
A phase 2 study.

**The role of Y-box binding protein 1 (YBX-1) in locally advanced and metastatic prostate cancer** (Pokorny M)
This project is the subject of Dr Morgan Pokorny’s thesis supervised by Professor Colleen Nelson and Professor Judith Clements. The project is investigating the role of YBX-1 overexpression in prostate cancer particularly in relation to epithelial to mesenchymal transition and chemotherapeutic resistance.

**Comparing sorafenib with placebo in patients with resected primary renal cell carcinoma at high or intermediate risk of relapse** (Wood S, McCaffrey E, Oleinikova I)
A multi-centre phase 3, randomised, double-blind study.

**Efficacy of the vitamin E isomer gamma-tocotrienol on castration resistant prostate cancer** (Ling P, Wood S, Nelson C)
This trial was initiated by Davos Pty Ltd in Malaysia based on preclinical work by Dr Patrick Ling showing efficacy of gamma-tocotrienol on castrate resistant prostate cancer cells.
Publications, Major Grants & People

T4 – Translation to population health
Moving scientific discoveries into the community. Researchers study factors and interventions that influence the health of populations, ultimately leading to improved global health.
Journal Articles

- Ahmed AH, Gordon RD, Sukor N, Pimenta E, Taylor PJ, Stowasser M. 2012. Quality of life in patients with bilateral primary aldosteronism before and during treatment with spironolactone and/or amiloride, including a comparison with our previously published results in those with unilateral disease treated surgically. Hypertension; 60:491.


Barralouche KA, Isbel NM, Lee KJ, Bergmann TK, Johnson DW, McWhinney BC ... Staatz CE. 2012. NR1I2 Polymorphisms Are Related to Tacrolimus Dose-Adjusted Exposure and BK Viremia in Adult Kidney Transplantation. Transplantation. 27:94(10):1025-32


Benjamin DJ, Cesarini D, van der Loos M, Dawes CT, Koellingen PD, Magnusson PKE ... Visscher PM. 2012. The genetic architecture of economic and political preferences. Proc Natl Acad Sci USA, 109 (21), 8026-8031.


Hunt KA, Smyth DJ, Balschun T, Ban M, Mistry V, Ahmad T … Wellcome Trust. 2012. Rare and functional SIAE variants are not associated with autoimmune disease risk in up to 66,924 individuals of European ancestry. Nat Genet, 44(1), 3-5.


Korczyk D, Hill J, Denaro Ch, Finn H. 2012. Enzyme Replacement Therapy in a Case of Anderson-Fabry Disease with Advanced Cardiac Involvement and Malignant Ventricular Arrhythmias. CSANZ; Volume 21; Supplement 1, S59.


Koyama M, Kuns RD, Oliver SD, Raffelt NC, Wilson YA, Don ALI ... Hill GR. 2012. Recipient non-hematopoietic antigen presenting cells are sufficient to induce lethal acute GVHD. Nature Medicine 18, 135-42.


Kuipers P. 2012. The new Millennium Development Goals and Inclusive Development. Disability, CBR and Inclusive Development; 23 (2); 121-122.


Lazzarini PA, O’Rourke SR, Russell AW, Clark D, Kuys SS. 2012. What are the key conditions associated with lower limb amputations in a major Australian teaching hospital? J Foot Ankle Res, 5(1), 12.


Liu JZ, Almarri MA, Gaffney DJ, Mells GF, Jostins L, Cordell HJ … Wellcome Trust Case Control. 2012. Dense fine-mapping study identifies new susceptibility loci for primary biliary cirrhosis. Nat Genet, 44(10), 1137+.


McKenzie, Hickey A, Korczyk D, Javorys G. 2012. Initial Experience with Heart Failure and Cardiac Transplant Clinics Conducted via Telehealth in Queensland, CSANZ.(21) 1 S83


McPhail S, Haines T. 2012. Patients undergoing subacute rehabilitation have accurate expectations of their health-related quality of life at discharge. Health and Quality of Life Outcomes, 10(1), 94.


Piret SE, Esapa CT, Gorvin CM, Head R, Loh NY, Devuyt O ... Thakker RV. 2012. A Mouse Model of Early-Onset Renal Failure Due to a Xanthine Dehydrogenase Nonsense Mutation. PLoS ONE, 7(9):e45217


Robb RJ, Lineburg KE, Kuns RD, Wilson YA, Raffelt NC, Oliver SD ... MacDonald KPA. 2012. Identification and expansion of highly suppressive CD8(+)FoxP3(+) regulatory T cells after experimental allogeneic bone marrow transplantation. Blood 119, 5898-908.


Sieh S, Taubenberger AV, Rizzi SC, Sadowski M, Lehan ML, Rockstroh A ... Hutmacher DW. 2012 Phenotypic characterization of prostate cancer LNCaP cells cultured within a bioengineered microenvironment. PLoS ONE, 7(9):e40217


○ Strange A, Riley BP, Spencer CCA, Morris DW, Pirinen M, O’Dushlaine CT ... Wellcome Trust Case Control. C. 2012. Genome-Wide Association Study Implicates HLA-C*01:02 as a Risk Factor at the Major Histocompatibility Complex Locus in Schizophrenia. Biol Psychiatry, 72(8), 620-628.


Witte JS, Visscher PM. 2012. Reclassify Controls at Your Own Risk. Epidemiology, 23(6), 910-911.


Yerkovich ST, Chang AB, Carroll ML, Petsky HL, Scrivener G, Upham JW. 2012. Soluble receptor for advanced glycation end products (sRAGE) is present at high concentrations in the lungs of children and varies with age and the pattern of lung inflammation Respirology; 17:841-6.


Young RM, Gullo MI, Feeney GFX, Connor JP. 2012. Source: Drug and alcohol dependence. 125 (3) 244-251.


Books & Book Chapters


Abstracts & Conference Proceedings


- Connor JP, Pegum N, Feeney GFX, Young RM. Psychological and psychosocial functioning in patients with alcohol related liver disease pre and post liver transplantation. Special Issue: 35th Annual Scientific Meeting of the Research Society on Alcoholism (RSA), San Francisco Ca, June 2012


Ho PI, Tay L, Teo J, Marlton P, Grigg A, St Pierre T, Brown G, Cervasio OL, Bowden DK. A magnetic resonance imaging assessment of cardiac and liver iron load in patients with hemoglobinopathies, myelodysplastic syndromes or other anemias treated with deferasirox (MILE-CICG570AU01). Haematologica 2012; 97(S1): 160. Abstr 0393.


Accepted for Publication (In Press)


Ng F, Ganeshan B, Kozarski R, Miles KA, Goh V. Assessment of primary colorectal cancer heterogeneity by using whole-tumor texture analysis: contrast-enhanced CT texture as a biomarker of 5-year survival. Radiology. 10.1148/radiol.


## Summary of Publications and Postgraduate Students

<table>
<thead>
<tr>
<th>Department</th>
<th>Publications</th>
<th>Students</th>
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<tr>
<td></td>
<td>Journal Articles</td>
<td>Articles in press</td>
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<td>Acquired Brain Injury Outreach Services</td>
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<td>Centre for Functioning and Health Research</td>
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<td>Centre for Kidney Disease Research</td>
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<td>Centre for Research in Geriatric Medicine</td>
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<td>Upper Gastro-intestinal and Soft Tissue Research Unit</td>
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<td>Urology Department</td>
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Major Grants
Selected funds received in 2012 over $50,000 per grant

**ARC/ARC Discovery**

**$246,000**
Skin penetration of nanoparticles promoted by particle design, formulation and application method (Xu G, Zvyagin A, Roberts M)

**$244,752**
Future Fellowship (Thomas R)

**$164,736**
A new approach to reversing and preventing immune-mediated diseases (Steptoe R)

**$131,250**

**$102,742**
Investigation of the role of transglutaminases in the signalling of insulin-like Growth Factor 1 and its derivatives (Dargaville T, Shooter G, Croll, Hollier, Mercer H)

**$86,138**
Multiscale stochastic modelling of tumour robustness (Harding A)

**National Health and Medical Research Council (NHMRC)**

**$1,366,913**
Program - Immunological therapies for cancer, chronic infection and autoimmunity (Thomas R, Hill G, Frazer I, Brown M, Degli-Eposti M)

**$913,770**

**$617,502**
Improving systems and quality of cancer care in Aboriginal and Torres Strait Islander primary health care settings (Valery P, Garvey G, Ballie R, Walpole E, Adams J, Williamson D, Martin J)

**$610,000**
Tracking epidermal clonal evolution during skin cancer induction and progression (Khosroshahrani K, Lyons G, Saunders NA)

**$603,000**
Characterisation of two novel markers of osteosarcoma metastasis as potential therapeutic targets (Endo-Munoz L, Evdokiou A, Saunders NA)

**$527,200**
A novel role for the IL-2 Pathway in Type-1-Diabetes (Hamilton-Williams E)

**$500,000**

**$500,000**
CRE for Quality and Safety in Integrated Primary/secondary care (Scott IA, Jackson C, Mitchell G, Foster M, Hollingsworth S, Anderson K, Freeman C)

**$460,389**
New Approaches for Gene Mapping in Osteoporosis (Duncan E)

**$437,215**
Ensuring the utility and sustainability of tissue banks: Supporting translational research in Australia through informed regulation and community engagement (Kerridge I, Marlot P)

**$400,000**
The Australasian Kidney Trials Network (C Hawley CM, Johnson DW)

**$400,000**
Enabling for Australian Prostate Cancer Collaboration Bio-Resource (Clements J, Risbridger G, Tilley W, Sutherland R)

**$343,000**
Biomarkers of acute renal toxicity in humans (Buckley N, Endre Z, Dawson A, Sheriff, Isbister, Roberts M)

**$327,272**
CRE in Cardiovascular and Metabolic Disease (Marwick TH, Prins J, MacDonald G, Isbel N, Hegney D, Stowasser M, Coombe J, Hickman J, O’Moore-Sullivan T)

**$301,000**
M S Toxicology of Nanomaterials (Minchin R, Roberts, Martin D, Smith, Monteiro M, Gahan L)

**$270,909**
The BLOCADE Trial: Beta-blocker to LOwer Cardiovascular Dialysis Events (Roberts M, Hawley C, Ierino F, Isbel N, Pilmore H, Perkovic V (and Badve S as AI)

**$250,022**
SNAC2 (N Wetzig)

**$247,335**
Inheritance of DNA methylation state in humans (McRae A)

**$230,727**
A randomised controlled trial of accelerometer (Gray L, Peel N, Cameron I, Karunanithi M, Paul S, Crotty M, Kurrle S)

**$224,322**
Pathogenesis of a new mouse model of ankylosing spondylitis (Thomas R)

**$218,129**
In association with QIMR for HPV on Squamous Cell Carcinomas of the Head and Neck (Anntonnson A)

**$209,067**
CEFOS - Genetic Factors for Osteoporosis - European Union (Brown M)
<table>
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<tr>
<td>$203,600</td>
<td>CCRE in Cardiovascular and Metabolic disease (Marwick T, Prins J, Stowasser M, Isbel N, Coombes J, MacDonald G)</td>
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<td>$195,000</td>
<td>In-depth association and functional studies assessing the role of novel single nucleotide polymorphisms in PSA and other Kallikrein genes in prostate cancer (Clements J, Batra J, Spurdle A)</td>
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<td>$194,891</td>
<td>To identify a new therapeutic target for the treatment of prostate cancer (Ling P, Quinn R, Russell P)</td>
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<td>$192,661</td>
<td>Centre for Research and Functioning, Monocytes/macrophages in chronic liver diseases Project</td>
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<td>$191,900</td>
<td>KLK4 is a master regulator of tumour microenvironment remodelling in prostate cancer and bone metastasis (Clements J, Nelson C, Hutmacher D, Russell P, Overall C, Gorman J, Harris J)</td>
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<td>$191,130</td>
<td>Macrophages: a therapeutic target in peritoneal dialysis-induced fibrosis? (Campbell J, Rolfe B, Johnson DW, Wei M)</td>
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<td>$190,287</td>
<td>Synthetic lethality screen targeting a defective checkpoint in melanoma (Gabrielli B)</td>
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<td>The physiology of Brown Adipose Tissue in Adult Humans (Ho K, Lee P)</td>
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<td>Targeted redox therapy for photoageing prevention and treatment (Prow T, Roberts M)</td>
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<td>Explaining the dark matter of genome-wide association studies for complex disease (Visscher P)</td>
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<td>Early Career Fellowship (Ng A)</td>
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<td>To study how prostate tumor metastasizes to bone (Ling P, Clements J, Nelson C)</td>
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<td>Defective toll-like receptor 7 signalling in plasmacytoid dendritic cells underlies the inception of virus-associated asthma (Chang, Phipps, Upham, Gibson, Yerkovich, Baines, Hodge, Pizzutto, Masters, Buntain)</td>
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<td>$166,762</td>
<td>A novel role for the IL-2 pathway in type-1 diabetes (Hamilton-Williams E)</td>
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<td>Senior Principal Research Fellowship - Identification of common and rare human disease genes (Brown M)</td>
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<td>Elucidating genetic mechanisms responsible for familial hyperaldosteronism type II (Stowasser M, Leo P, Duffy D, Gordon R)</td>
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<td>Therapeutics Research Centre, Continuing research Fellowship (Roberts MS)</td>
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<td>Novel treatment approaches to prevent joint fusion in ankylosing spondylitis (Thomas G)</td>
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<td>Serial Nt-Probnp monitoring for predicting major cardiovascular events in the dialysis population</td>
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<td>Regulatory RNAs underlying genetic associations with ankylosing spondylitis (Thomas G)</td>
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<td>Defining the role of the PSA-related Kallikrein serine proteases in hormone dependent cancer progression (Clements J)</td>
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<td>Collaborative Oncological Gene-environment Study (EU-COGS) (Giles, Clements, English, Hayes, Hopper, Kedda, Nelson, Pedersen, Severi, Southey, Spurdle)</td>
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<td>Development of an allergen-specific blood test for Bahia grass pollen allergy (Davies, Upham J)</td>
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<td>Mechanisms of rapid memory CD8+ T-cell inactivation (Steptoe R)</td>
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<td>$104,745</td>
<td>Practitioner Fellowship (Level 2) (Soyer HP)</td>
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<td>Use of innovative mobile telehealth technology to enable a new service delivery solution for dysphagia management (Ward E, Theodoros D, Russell T, Burns C)</td>
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<td>$100,505</td>
<td>The HERO trial (Johnson DW)</td>
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<td>GBM (Khanna &amp; Gandhi M)</td>
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<td>CDA, Biomedical-Molecular mechanisms underlying the positive associations between male gender &amp; leptin with Barrett’s oesophagus (Hill M)</td>
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<td>Targeting of the Myb-p300 Interaction in Myeloid Leukaemogenesis (Gonda T)</td>
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<td>CDA-Biomedical (R Douglas Wright Biomedical CDA) Endosomal tubule formation in health and disease (Simpson-Fraser F)</td>
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<td>Career Development Award: Noncoding RNAs in neural stem cell differentiation (Dinger M)</td>
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Mechanisms regulating cell cycle progression in response to UV radiation (Jae Lee W)

$75,000  
Microbial immunity in a large population of adult asthmatics with suboptimal disease control (Chang, Mulholland, Brown, O'Grady, Grimwood, Morris, Leach, Upham, Torzillo, Bosco, Mackay)

$72,508  
Improving physical activity outcomes for inactive patients (McPhail, S)

$72,500  
Prostate cancer association and functional studies (Batra J)

$61,267  
Centre for Research and Functioning, Practitioner Fellowship

$57,355  
Automated electrophoretic bioanalysis (Brown M and UQDI)

**Cancer Council Queensland**

$700,000  
Cancer Council Queensland Senior Research Fellowship (Saunders NA)

$200,000  
Dysregulated H3K27me3 contributes to differentiation-insensitivity and squamous cell carcinoma development (Saunders NA)

$142,696  
Translating basic science into better cancer treatments (Saunders N)

$133,200  
QCOG Data Management

$100,000  
Defining a response to UV exposure that is defective in melanoma (Gabrielli B)

$100,000  
Dysregulated H3K27me3 contributes to differentiation-insensitivity and squamous cell carcinoma development Cancer Council Queensland (Saunders N)

$97,394  
Investigating the mechanisms by which immune cells (particularly T cells and NKT cells) target and eliminate cells expressing tumour antigens (Frazer I, Bhat P)

$85,000  
Skin bioavailability and targeted skin delivery by topical application (Roberts M)

$80,600  
Data manager (Smithers M)

**Queensland Government and Queensland Health**

$5,751,000  

$3,000,000  
Founder and Clinical Director for the Deadly Ears Program. This Program received the ‘Director General of Health’ Award 2010 for the Program that best reflected Qld Health values. Also received the ‘Closing the Gap’ Award for best Indigenous Program in Qld Health 2010 (Perry C)

$2,000,000  
Queensland Government’s Smart Futures Co-Investments Fund (2012) - A Unique Queensland Collaborative Facility (TIA – QLD Node) for Translating University Life Sciences Discoveries into High Value Products for Commercialization (Thomas G)

$1,500,000  

$400,000  

$250,000  
Queensland Smart Futures Premier’s Fellowships - Development of new therapeutic approaches for prostate cancer progression - Dissecting the Efforts of Diabetes and Obesity in Cancer Progression (Nelson C)

$196,902  
PA Online - Queensland Health (Smith AC, Gray L)

$174,426  
Research Fellowship (SPRF) (Visscher P)

$150,000  
Health Research Fellowship Queensland Health (Johnson DW)

$140,000  
Managing Malnutrition: identifying and addressing barriers and enablers for an interdisciplinary post hospital nutrition care model to improve clinical outcomes in older medical patients. Queensland Health (Banks M, Mudge A, Gillen L, Isenring E)

$134,727  
Investigation of the long-term outcomes of a MobileTelehealth Screening Service for Aboriginal Children in Cherbourg Darling Downs Health Service District (Queensland Health) (Smith AC)

$120,000  

$83,000  
Smart Futures Fund, QLD-Chinese Academy of Sciences Biotechnology Project- Novel treatments for oral cancers QLDGOV (Saunders N)

$70,000  
Improving older patients’ safety in Western Australian Hospital Department of Health WA. (Hill A, Waldron N, Haines T, Beer C, McPhail, S Ingram, K Flicker, L Fletcher, R Carr, N Kitchen, S Seymour, H Simpson, K)
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<td>$66,000</td>
<td>Telemedicine Units for Regional Queensland</td>
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<td>$60,000</td>
<td>Smarter targeted cancer therapies for a healthier Queensland, Queensland Government</td>
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<td><strong>Other Grants &amp; Funding</strong></td>
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<td>National Institute of Arthritis and Musculoskeletal and Skin Diseases. ‘Australo-Anglo-American AS Consortium’ (Revelle JD, Brown MA) 2012-16</td>
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<td>$903,091</td>
<td>Centre for Online Health. “The development, delivery, promotion and evaluation of a clinical telehealth educational and training programs for clinicians (Smith AC, Edrippulige S, Armfield NR, Gray L)</td>
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<td>$774,000</td>
<td>A randomised controlled trial of the effect of hydrocortisone on mortality in critically ill patients with septic shock (MacArthur C, Venkatesh B, Finfer S, Myburgh J)</td>
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<td>CINV in patients receiving chemotherapy for NHL MSD” Australian Leukaemia lymphoma Group (ALLG) (funding source MSD) (Carrington C, Griggs A)</td>
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<td>Optimisation of a particulate formulation for antigen-specific tolerance in rheumatoid arthritis UNIQUEST (Thomas R)</td>
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<td>IMPROVE-CKD trial unrestricted Shire Pharmaceutical Development Ltd (Hawley C)</td>
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<td><strong>$223,630</strong></td>
<td>Telepaediatrics Children's Health Service District (Queensland Health) (Smith AC)</td>
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<td><strong>$210,000</strong></td>
<td>Examination of the Expression and Potential Role of Cancer Associated Viral Sequences in the Causation and Outcomes of Breast Cancer Patients. Wesley Research Institute (Bennett I, Brown M, Saunders NA)</td>
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<td>Fellowship in skin cancer research in Queensland Perpetual Trustees (Frazer I)</td>
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<td>Enabling for Australian Prostate Cancer Collaboration Bio-Resource Prostate Cancer Foundation of Australia (Clements I, Tilley W, Sutherland R, Risbridger G)</td>
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<td><strong>$181,000</strong></td>
<td>Inactivation of the Inhibitor of Differentiation (Id-1) as a Therapy for the Treatment of Advanced Prostate Cancer Vice-Chancellor’s Fellowship, QUT (Ling P)</td>
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<td>Educating Nurse Practitioners (Gardner A, Gardener G, Coyer F, Henderson A, Cosby H, Lenson S)</td>
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<td><strong>$158,231</strong></td>
<td>Novel Interventions against HPV-associated neoplasia (NCI-MMHCC-Integration of mouse models into human cancer research) National Institutes of Health USA (Frazer I, Lambert P, Munger K)</td>
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<td>DOCTOR Australiasian Gastrointestinal Trials Group (Smithers M)</td>
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<td><strong>$150,000</strong></td>
<td>Identification of RNA species regulated by YB1 and G3BPs in prostate cancer cells Prostate Cancer Foundation of Australia/Cancer Australia (Radford K, Lahoud M, Clements J)</td>
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<td><strong>$146,844</strong></td>
<td>A validated risk model that will inform a decision aid for peritoneal dialysis patients deciding whether to switch modality to avoid developing encapsulating peritoneal sclerosis</td>
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<td><strong>$144,433</strong></td>
<td>PSA as a therapeutic target: an integrated systems biology approach to discover the pathways initiated by PSA activity in prostate cancer progression Prostate Cancer Foundation of Australia/Cancer Australia (Clements I, Overall C, Gorman J, Hutmacher D, Nelson C)</td>
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<tr>
<td><strong>$126,741</strong></td>
<td>Young Investigator - A systems biology approach to elucidate the molecular mechanisms of caveolin-1 and statins in prostate cancer progression and metastasis Prostate Cancer Foundation of Australia (Hill M)</td>
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<tr>
<td><strong>$124,261</strong></td>
<td>A validated risk model that will inform a decision aid for peritoneal dialysis patients deciding whether to switch modality to avoid developing encapsulating peritoneal sclerosis</td>
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<tr>
<td><strong>$124,833</strong></td>
<td>Young Investigator - A systems biology approach to elucidate the molecular mechanisms of caveolin-1 and statins in prostate cancer progression and metastasis Prostate Cancer Foundation of Australia (Hill M)</td>
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<td><strong>$120,027</strong></td>
<td>Centre for Online Health, Health-e-REGIONS QGC (Smith AC, Gray L)</td>
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<tr>
<td><strong>$120,000</strong></td>
<td>PSA as a therapeutic target: an integrated systems biology approach to discover the pathways initiated by PSA activity in prostate cancer progression Prostate Cancer Foundation of Australia/Cancer Australia (Clements I, Overall C, Gorman J, Hutmacher D, Nelson C)</td>
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<tr>
<td><strong>$110,000</strong></td>
<td>Exploring the dynamics of inter-relationships between clinical &amp; biochemical parameters in type 2 diabetes (Paul S)</td>
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<tr>
<td><strong>$110,000</strong></td>
<td>Targeted delivery of prostate cancer antigens to dendritic cells for immunotherapy Prostate Cancer Foundation of Australia/Cancer Australia (Radford K, Lahoud M, Clements J)</td>
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<tr>
<td><strong>$110,000</strong></td>
<td>Identification of RNA species regulated by YB1 and G3BPs in prostate cancer cells Prostate Cancer Foundation of Australia/Cancer Australia (Nelson C, Kennedy D, Rockstroh A)</td>
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<td>$121,803</td>
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<td>$107,633</td>
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<td>Raelene Boyle Outreach Program Sporting Chance Cancer Foundation (Smith AC)</td>
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<td>Professorial Chair ARTHFA (Thomas R)</td>
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<tr>
<td>$102,910</td>
<td>Irene Hunt Bequest for Research in Hypertension by RD Gordon (Gordon RD, Stowasser M)</td>
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<tr>
<td>$102,102</td>
<td>Postdoctoral Research Fellowship - Skin immune sentinels: roles and functions of immunoregulatory T cells in HPV16 skin infection in mice The University of Queensland (Bergot A)</td>
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<td>$100,974</td>
<td>Oncogene silencing in AML: Bone marrow siRNA delivery using dendrimers and lipopolax SERTF (Saal R, McMillen L, McMillan N, Marltin P)</td>
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<td>$100,000</td>
<td>Simultaneous Imaging and Drug Delivery for Prostate Cancer Theranostics Prostate Cancer Foundation of Australia (Russell P, Whittaker A, Heston W, Thurecht K, Nelson C, Cowin G)</td>
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<tr>
<td>$100,000</td>
<td>Examination of the Expression and Potential Role of Cancer Associated Viral Sequences in the Causation and Outcomes of Breast Cancer Patients. Wesley Research Institute</td>
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<tr>
<td>$100,000</td>
<td>CKDQLD Amgen (Fassett RG, Hoy W)</td>
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<tr>
<td>$100,000</td>
<td>Donation to support the UQ Professorial Chair of Dermatology position Queensland Skin &amp; Cancer Foundation Inc (Soyer HP)</td>
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<tr>
<td>$100,000</td>
<td>PTLD ROTRF (Gandhi M)</td>
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<td>Immune dysfunction in lymphoma Lymphoma Fund (Gandhi M)</td>
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<tr>
<td>$99,884</td>
<td>Theoretical Population Genetics (NIH Subcontract administered by the University of Washington)</td>
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<td>Developing a quality framework for the care of older patients in the Emergency Department, Queensland Emergency Medical Research Foundation (Burkett E, Gray L, Jones R, Martin-Khan M)</td>
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<td>Emergency Department QEMRF (Burkett E)</td>
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<tr>
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<td>Statistical genetic analyses of social and economic outcomes Stockholm school of economics (Visscher P)</td>
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<tr>
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<td>Donation to support dermatology research Donations (Soyer HP)</td>
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<tr>
<td>$89,600</td>
<td>The reconstruction of large segmental bone defects using patient-specific tissue engineered constructsWesley Research Institute (Dickinson I, Hutmacher D, Schuetz M)</td>
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<tr>
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<td>Hunting for viruses that cause skin cancer PA Research Foundation (Soyer HP)</td>
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<tr>
<td>$75,000</td>
<td>Centre for Research and Functioning, Establishment of primary human liver cell isolation: a necessary model to understand hepatic disease PA Research Support Scheme</td>
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<td>$75,000</td>
<td>The role of the transcription factors PITX2 (paired-like homeodomain) and YB-1 (Y-box binding protein 1) in metastatic prostate cancer and possible therapeutic implications Australasian Urological Foundation (Nelson C, Pokorny M)</td>
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<tr>
<td>$75,000</td>
<td>PA Research Foundation Project (Ng A)</td>
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<tr>
<td>$75,000</td>
<td>PA Hospital Private Practice Trust Fund. Development of neurotropism in cutaneous squamous cell carcinoma of the head and neck.</td>
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<td>The metabolic sequelae of oestrogens and related compounds PA research Support Scheme (Ho K)</td>
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<td>Obesity-related inflammation and insulin resistance in chronic liver disease: Exercise and diet as treatment options Lions Medical Resarch Foundation (Hickman I)</td>
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<td>Emergency Department Private Practice Trust Fund (Sinnott M)</td>
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<tr>
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<td>Assessment of the burden and consequences of interruptions in health care to workflow and patient outcomes. PA Research Foundation (Venkatesh B, Sanderson P, Aitken L)</td>
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<td>Interruptions research in intensive care PA Research Foundation (Venkatesh B, Sanderson P, Aitken L)</td>
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<tr>
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<td>Growth Hormone and the anaerobic energy system PA research Support Scheme (Chikani V)</td>
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<td>Finding better ways to detect curable hypertension PA Research Foundation (Stowasser M)</td>
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<td>How well prepared is the PAH DRS to support the NCCTRC and RDH in times of Crisis? A critical review TRADEM</td>
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<td>$71,395</td>
<td>Modulating cholesterol-dependent lipid rafts and caveolin in prostate cancer therapy</td>
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<td>$62,000</td>
<td>Exosome biomarkers: Defining prognosis for drug- and castrate-resistant prostate cancer</td>
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<td>Functional assessment of new melanoma genomic mutations</td>
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<td>High Intensity Aphasia Clinics: Embedding the evidence in Queensland Health Contexts</td>
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<tr>
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<td>UQ Postdoctoral Research Fellowship: The role of Wnt proteins in inflammation</td>
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<td>$55,623</td>
<td>UQ Postdoctoral Fellowship for women (part-time): Defining the transcriptional and translational</td>
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<td>Hospital Employees Awareness and Attitudes,</td>
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<td>Allergic sensitization to grass pollens in patients with allergic rhinitis and asthma in</td>
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<tr>
<td>$53,452</td>
<td>Development of therapeutic HPV polynucleotide vaccine</td>
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<tr>
<td>$51,683</td>
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<tr>
<td>$50,902</td>
<td>MYB regulation of differentiation and apoptosis in breast cancer: Targets and targeting</td>
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<tr>
<td>$50,000</td>
<td>Functional Role of IL-23R+ gamma delta T cells in Ankylosing Spondylitis</td>
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<tr>
<td>$50,000</td>
<td>Office of the Deputy Vice Chancellor Research Support Funding</td>
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<tr>
<td>$50,000</td>
<td>Senior Research Fellow position in Melanoma Research</td>
</tr>
<tr>
<td>$50,000</td>
<td>Salary support QCTBC</td>
</tr>
</tbody>
</table>
Committees

Human Research Ethics Committee – Metro South Health

- Professor Maher Gandhi, Haematologist, HREC Chair
- Associate Professor Richard Roylance, Paediatrician, HREC Co-Deputy Chair
- Associate Professor Scott Campbell, Renal Physician, HREC Co-Deputy Chair
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- Dr Mary Boyde, Nursing and Professional Care
- Dr Wendy Foley, Research Officer and Professional Care
- Ms Meg Harward, Nursing and Professional Care
- Dr Sean Hatherill, Psychiatrist Child Youth MHS and Professional Care
- Professor Rick Jackson, Endocrinologist and Researcher
- Dr Jennifer Jones, Clinical Ethicist and Professional Care
- Dr Karam Kostner, Physician and Researcher
- Ms Beverley Gaye Kurkowski, Lay Person Female
- Dr Adam Lactae, Pharmacist and Professional Care
- Associate Professor Peter Mollee, Haematologist Physician and Researcher
- Mr Kelly Perkins, Clinical Research Coordinator
- Associate Professor Gail Robinson, Psychiatrist and Researcher
- Mr Denzil Scrivens, Lay Person Male
- Mr Malcolm Smith, Lawyer
- Dr Lyndall Spencer, Professional Care, Nursing
- Ms Florence Spurling, Retired and Pastoral Care
- Dr Paul Spurling, Lay Person Male
- Mr Colin Sutcliffe, Lay Person Male
- Rev Dr Mervyn Thomas, Minister of Religion
- Ms Mabel Tsui, Lay Person Female
- Professor Amanda Wheeler, Academic Researcher
- Professor Maher Gandhi, Haematologist, HREC Chair

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- Gertrude Armit, Physiotherapist PAH
- Judith Coombes, Senior Pharmacist PAH
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- Associate Professor Jenny Fleming, Conjoint Research Fellow, Occupational Therapy PAH/UQ
- Dr Melissa Kendall, Research Officer, Transitional Rehabilitation Program and Acquired Brain Injury Outreach Service PAH
- Associate Professor Pim Kuipers, Principal Research Fellow, Centre for Functioning and Health Research, GU/Metro South
- Dr Steve McPhail, Senior Research Fellow, Centre for Functioning and Health Research, QUT/Metro South
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- Dr Rebecca Owen, Statewide Research Fellow, Radiation Oncology
- Sue Pager, Research Workforce Development Officer, Metro South
- Michelle Palmer, Dietitian, Logan Hospital
- Cathy Renkin, Social Worker, Mental Health
- Adrienne Slaughter, Occupational Therapist, PAH
- Evelyn Towers, Director of Audiology PAH
- Professor Elizabeth Ward, Professor of the Centre for Functioning and Health Research, UQ/Metro South
- Kerrin Watter, Speech Pathologist PAH
- Mary Whitehead, Director of Occupational Therapy PAH

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- Mr Terry White AO
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- Associate Professor Carmel Hawley
- Professor Gerald Holtmann
- Ms Kerri Holzhauser
- Professor Michael Schuetz
- Professor Mark Smithers
- Professor Michael Stowasser
- Professor Euan Walpole
- Dr Bruce Wyse
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- Dr Megan Broughton, Manager
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- Karen Goddard, Social worker/Rehabilitation Coordinator
- Marie Hollingworth, Occupational Therapist/Rehabilitation Coordinator
- Dr Melissa Kendall, Research and Development Officer
- Areti Kennedy, Neuropsychologist/Rehabilitation Coordinator
- Susan Gauld, Occupational Therapist/Rehabilitation Coordinator
- Karen Goddard, Social worker/Rehabilitation Coordinator
- Marie Hollingworth, Occupational Therapist/Rehabilitation Coordinator
- Dr Melissa Kendall, Research and Development Officer
- Areti Kennedy, Neuropsychologist/Rehabilitation Coordinator
- Clare Morgan, Neuropsychologist/Rehabilitation Coordinator
- Elissa Morriss, Occupational Therapist/Rehabilitation Coordinator
- Judith Nance, Physiotherapist/Rehabilitation Coordinator
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- Irina Oleinikova
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- Dr Kate Irvine, Laboratory Head

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- Karen Lucas, Service Manager
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- Nampech Wuthapanich, Research Assistant

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- Blair Burke, Research Assistant
- Clare Primiero, Research Assistant
- Conrad Morze, Research Assistant
- Elizabeth McMeny, Research Assistant
- Elizabeth Payne, Research Assistant
- Eric Chai, Research Assistant
- Erin McMeniman, Research Assistant
- Jean-Marie Tan, Research Assistant
- Dr Lauren Buchanan, Research Assistant
- Natalie Ong, Research Assistant
- Nicole Lin, Senior Research Admin Officer
- Parastoo Banan, Research Assistant
- Philip McClennah, Research Assistant
- Associate Professor Stephen Gilmore
- Sudipta Sinnya, Research Assistant
- Dr Tarl Prow, Deputy Director/Academic Research Manager
- Terri Biscak, Research Assistant
- Tristan Blake, Research Assistant

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- Dr Sandya Jalapu, Research Fellow
- Dr Christina Jang, Senior Research Fellow
- Professor Ken Ho, Consultant
- Dr Johanna Barclay, Team Leader
- Dr Viral Chikani, Endocrinologist, PhD candidate
- Kevin Carter, Research Nurse
- Jody Sawyer, Research Nurse
- Jane Sorbello, Research Nurse
Diamantina Institute
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- Associate Professor Nicholas Saunders, Principal Research Fellow
- Associate Professor Raymond Steptoe, Associate Professor
- Professor Ranjeny Thomas, Arthritis Qld Chair of Rheumatology
- Professor Peter Visscher, Prof & Chair of Quantitative Genetics
- Dr Antje Blumenthal, Balzan Research Fellow
- Dr Emma Hamilton-Williams, Senior Research Officer
- Dr Graham Leggatt, Senior Lecturer
- Dr Chaminde Punyadeera, Smart Futures Fellow
- Dr Brooke Gardiner, Senior Research Officer
- Dr Angus Harding, Research Fellow
- Dr Michelle Hill, ARC Future Fellowship
- Dr Tony Kenna, Research Fellow
- Dr Paul Leo, Senior Bioinformatician
- Dr Stephen Mattarollo, Balzan Fellow
- Dr Roberta Mazzieri, Senior Research Fellow
- Dr Allan McRae, Research Fellow
- Dr Gerhard Moser, Research Fellow
- Dr Liliana Munoz, Senior Research Officer
- Dr Brendan O’Sullivan, Senior Research Officer
- Dr Sandra Pavey, UQ Postdoctoral Research Fellow
- Dr Fiona Simpson, Research Fellow
- Dr Duka Skalamera, Senior Research Officer
- Dr Gethin Thomas, Deputy Director Education
- Dr James Wells, Research Fellow

Emergency Department
- Dr Phillip Kay, Director
- Dr Michael Sinnott, Head of Research Program
- Dr Ogilvie Thom, Head of Research Program
- Dr Ellen Burkett, Staff Specialist
- Dr Marianne Cannon, Senior Staff Specialist
- Dr James Collier, Co-Director ED
- Dr Rob Eley, Academic Research Manager
- Sue Galbraith, Clinical Nurse Equipment
- James Hughes, Clinical Nurse Consultant
- Dr Jon Isoardi, Staff Specialist
- Dr Sean Lawrence, Staff Specialist
- Nicolla Melton, Research Officer
- Dr Kim Nicholls, Staff Specialist
- Dr Colin Page, Senior Staff Specialist
- Fugelli Pete, EDIS data manager
- Dr Darren Powrie, Staff Specialist
- Dr Ramon Shaban, Visiting Research Fellow
- Dr Lyndall Spencer, Nurse Researcher
- Dr Andrew Staib, Deputy Director ED
- Leanne Trenning, Nurse Education

Endocrine Hypertension Research Centre
- Professor Michael Stowasser, Co-Director
- Emeritus Professor Richard Gordon, Co-Director

Gastroenterology & Hepatology Department
- Professor Gerald Holtmann, Director

Haematology Department
- Professor Devinder Gill, Director
- Dr Robert Bird, Director Laboratory Haematology
- Dr Catherine Cheung, Post Doc Research Scientist
- Megan Ellis, Tissue Bank Manager
- Professor Maher Gandhi, Senior Staff Specialist
- Dr Matthew Hourigan, Visiting Staff Specialist
- Dr Sally Mapp, Staff Specialist
- Associate Professor Paula Marilton, Deputy Director Haematology
- Dr Anthony Mills, Staff Specialist
- Professor Andrew Perkins, Senior Staff Specialist
- Russell Saal, Chief Scientist, Laboratory Haematology
- Associate Professor Peter Wood, Staff Specialist
- Dr Helen Wordsworth, Visiting Senior Specialist

Intensive Care Unit
- Associate Professor Chris Joyce, Director
- Professor Bala Venkatesh, Director of Research
- Professor Leanne Aitken, Chair in Critical Care Nursing
- Michael Abbey, Clinical Nurse Consultant
- Elizabeth Burmeister, Research Assistant
- Professor Wendy Chaboyer, Visiting Research Fellow
- Dr David Cook, Senior Staff Specialist
- Dr David Fraenkel, Senior Staff Specialist
- Ms Danielle Griffiths, Clinical Nurse Consultant
- Lena James, Clinical Nurse Research
- Dr Wayne Kelly, Staff Specialist
- Dr Anand Krishnan, Staff Specialist
- Associate Professor Peter Kruger, Deputy Director of Intensive Care
- Dr Gordon Laurie, Staff Specialist
- Ms Bonnie MacFarlane, Research Assistant
- Dr Marion Mitchell, Research Fellow
Dr Leo Nunnink, Senior Staff Specialist
Kelly Perkins, Research Coordinator
Dr Roslyn Purcell, Staff Specialist
Jennifer Robertson, Nurse Unit Manager
Georgina Russo, Research Coordinator
Dr James Walsham, Staff Specialist
Nicola West, Nurse Unit Manager
Sharon Wetzig, Clinical Nurse Consultant

Internal Medicine and Clinical Epidemiology
- Associate Professor Ian Scott, Director of Internal Medicine and Clinical Epidemiology
- Associate Professor Jennifer Martin, Head Southern Clinical School, The University of Queensland
- Dr Mujtaba Ahmed, Senior Medical Registrar
- Dr Golam Khadem, Deputy Director
- Dr Hasan Shohag, Senior Medical Registrar

Lung & Allergy Research Centre
- Professor John Upham, Director

Medical Oncology Department
- Associate Professor Damien B Thomson, Director
- Adam Stoneley, Research Unit Coordinator, Division of Cancer Services
- Dr Euan Walpole, Medical Director of Cancer Services

Mental Health Services
- Associate Professor David Crompton OAM, Executive Director Metro South Addiction and Mental Health Services, Centre for Neuroscience, Mental Health and Recovery (CNMHR)

Nursing Practice Development Unit
- Kerri Holzhauser, Nursing Director Research
- Vanessa Brunelli, Nurse Researcher
- Liz Burmeister, Nurse Researcher
- Emma Eaton, Nurse Educator
- Professor Amanda Henderson, OHMR Research Fellow, Nursing Director Education
- Carol Jeffrey, CNC EBP
- Christine Ossenberg, Clinical Nurse
- Karyn Paterson, Nurse Educator Bernadette Thomson, A/Nursing Director Education
- Scott Tyler, Nurse Educator, Health Workforce Australia Fellow
- Dr Rachel Walker, Research Fellow – PAH, NHMRC Centre of Research Excellence in Nursing (NCREN), Centre for Health Practice innovation, Griffith Health Institute, Griffith University

Nutrition and Dietetics Department
- Dr Maree Ferguson, Director
- Dr Ingrid Hickman, Director of Research
- Dr Katrina Campbell, Senior Research Fellow
- Louise Cooney, Research Dietitian
- Amy Davis, Research Dietitian
- Melissa Gwidz, Research Dietitian
- Rachel Hale, Research Nurse
- Dr Liz Isenring, Academic Research Fellow
- Laisa Teleni, Research Dietitian

Occupational Therapy Department
- Mary Whitehead, Director
- Ruth Cox, Acting Director
- Associate Professor Jennifer Fleming
- Dr Emmah Doig, NHMRC Postdoctoral Research Fellow

Older Person Mental Health Unit
- Dr David Lie, Clinical Director

Orthopaedics Department
- Dr Cameron Cooke, Director

Otolaryngology Department – Head and Neck Surgery and the Queensland Skull Base Unit
- Associate Professor Ben Panizza, Director
- Dr Sharad Chawla
- Dr Ryan Adams
- Associate Professor Chris Perry, Chair, Head and Neck Clinic
- Dr Glenn Jenkins
- Dr Melissa Thompson
- Dr Ben Wallwork, Consultant
- Dr Jason Van Rompaey
- Dr Tim Warren, Research Fellow

Pharmacy Department
- Adjunct Associate Professor Lynnette Loy, Director
- Dr Christine Carrington, Cancer Services Pharmacist
- Judith Coombes, Senior Pharmacist Education
- Andrew Hale, Senior Pharmacist
- Robyn Hurley, Clinical trials pharmacist
- Dan McKavanagh, Cancer Services Pharmacist
- Tina Patterson, Drug Use Evaluation pharmacist
- Sean Unwin, Infectious Diseases Pharmacist
- Karl Winckel, Senior Pharmacist Education

Physiotherapy Department
- Kathy Grudzinskas, Director

Queensland Clinical Trials & Biostatistics Centre
- Associate Professor Sanjoy K Paul, Director
- Dr Kerenaftali Klein, Senior Biostatistician
- Namitha Bobby, Clinical Data Manager & Programmer
- Dr Margaret Haughton, Project Manager
- Gijo Thomas, Research Assistant -Statistics
Queensland Melanoma Project
- Associate Professor B Mark Smithers, Director
- Associate Professor Bryan Burmeister, Director Radiation Oncology PAH
- Jennifer Addison, Clinical Research Nurse
- Dr Chris Allan, Surgeon
- Nicole Armour, Research Officer
- Associate Professor Andrew Barbour, Senior Surgeon
- Dr Gerard Bayley, Senior Surgeon
- Sharan Burton, Clinical Research Nurse
- Dr Matthew Foote, Radiation Oncologist
- Dr Adam Frankel, Research Fellow
- Dr Andrew Pullar, Radiation Oncologist
- Henry Tang, Research Officer
- Janine Thomas, Trials Coordinator

Queensland Spinal Cord Injuries Services
- Dr Sridhar Atresh, Director QSCIS
- Dr Timothy Geraghty, Medical Chair Division of Rehabilitation
- Delena Amsters, Senior Research Officer SPOT
- Carey Bayliss, Physiotherapist SIU
- Sue Booth, Social Worker TRP
- Kara Burgess, Physiotherapist SIU
- Jennifer Campbell, Physiotherapist TRP
- Christine Cullen, Occupational Therapist SIU
- Rachael DiMichele, Occupational Therapist TRP
- Emilie Gollan, Physiotherapist SIU
- Kirsten Hinchy, Social Worker TRP
- Rachael Jones, Research Nurse SIU
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Radiation Oncology Department
- Professor Bryan Burmeister, Director

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- Professor Michael Poulsen, Director
- Kacy Baumann, Clinical Trial Unit Supervisor
- Adrienne See, Clinical Trial Coordinator
- Narelle Wallace, Clinical Trial Coordinator – QA

Radiology Department
- Dr Susanne Jeavons, Director
- Dr Alan Avery, Registrar
- Dr Andrew Baird, Registrar
- Sally Ball, Senior Radiographer
- Dr Mark Benson, Deputy Director of Diagnostic Radiology Ultrasound/MRI - SMO
- Dr Melanie Bond, Consultant-VMO
- Shona Carman, Senior Radiographer/Sonographer
- Dr Jennifer Chang, Consultant / Supervisor of Training
- Dr Yu Chris, Consultant-SMO
- Dr John Coucher, Consultant
- Dr Sam Davis, Registrar
- Dr Arash Dehdari, Registrar
- Dr Stephen Drew, Consultant-VMO
- Dr John Earwaker, Consultant-VMO
- Luke Elliott, Senior Radiographer
- Dr Mitesh Gandhi, Consultant-SMO
- Dr Sonja Greenslade, Consultant-SMO
- Dr John Harper, D/Director of Diagnostic Radiology, Director of Interventional Radiology
- Dr Yi-Tung (Tom) Huang, Registrar
- Dr Sally Johnstone, Consultant-SMO
- Scott King, Section Senior Radiographer-Ultrasound
- Dr Phillip Law, Consultant
- Dr David Leggett, Consultant Vascular & Interventional Radiology-SMO
- Dr Thomas Lloyd, Consultant-SMO
- Dr Emily Mackenzie, Consultant Nuclear Medicine Specialist-SMO
- Michael Malouf, Radiographer
- Dr Louise McEwan, Consultant-VMO
- Dr Lora Medoro, Consultant-VMO
- Dr Stephen Mego, Consultant Nuclear Medicine Specialist-VMO
- Dr Ken Miles, Consultant-VMO
- Gabrielle Neep, Advanced PACS Applications Radiographer
- Michael Neep, Senior Radiographer (A/ Clinical Educator)
- Dr Stanley Ngai, Consultant
- Wayne Nuss, Director Medical Imaging
- Dr Ben Ong, Consultant
- Dr Benjamin Pearch, Consultant
- Megan Power, Radiographer
- Jit Pratap, Section Senior Radiographer - CT
- Daphne Prybyszczuk, Radiographer
- Dr Kendal Redmond, Interventional Radiologist
- Ben Rowney, Radiographer
- Dr Nivene Saad, Consultant
- Dr Eric Sclavos, Consultant / Supervisor of Training-SMO
- Behrooz Sharifi, Applications Manager
- Dr Zane Sherif, Registrar
- Matthew Simpson, Radiographer
- Gary Smith, Section Senior Radiographer - General Imaging
- Dr Jennifer Sommerville, Consultant
- Tom Steffens, Clinical Educator - Medical Imaging
Andrew Volp, Section Senior Radiographer - MRI
Sophy Warne, Radiographer
Tim Way, A/Director - Radiographer
Kathryn Whiteman, Radiographer
Jessica Williams, Radiographer

Respiratory and Sleep Medicine Department
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Rheumatology Department
Dr Phillip Vecchio, Director

Speech Pathology Department
Wendy McCallum, Director
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Cassandra Budden, Speech Pathologist - Senior
Ashley Cameron, Speech Pathologist
Dr Bena Cartmill, Speech Pathologist - Advanced
Kathy Clark, Speech Pathologist - Team Leader
Dr Emma Finch, Conjoint Research Fellow
Kelli Hancock, Speech Pathologist Team Leader/ Clinical Consultant
Annie Johnson, Speech Pathologist - Senior
Nadine Lawson, Speech Pathologist Team Leader/ Clinical Consultant
Dr Jennifer Lethlean, Speech Pathologist - Advanced
Kate Robinson, Speech Pathologist - Senior
Leanne Smith, Speech Pathologist - Senior
Kerrin Watter, Speech Pathologist - Senior

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Dr Jeff Grice, Academic Manager
Eman Abd, PhD Student

Professor Chris Anderson, Research Consultant
Dr Yuri Anissimov, Honorary Research Consultant
Dr Andrew Bartholomaeus, Honorary Research Consultant
Professor Frank Burczynski, Visiting Research Associate
Navin Chandrasekaran, PhD Student
Dr Sheree Cross, Honorary Research Consultant
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Dr Owen Jepps, Honorary Research Consultant
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Professor Vania Leite-Silva, Visiting Research Associate
Peng Li, Affiliate, PhD student, UniSA
Xiaowen Liang, PhD Student
Dr Xin Liu, Postdoctoral Fellow
Adnan Mahmood, PhD student
Dr Gregory Medley, Postdoctoral Fellow
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Dr Kanchana Ranasinghe, Research Consultant
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Dr Elizabeth Ryan, Postdoctoral Fellow
Dr Washington Sanchez Jr, Postdoctoral Fellow
Camilla Thompson, PhD student
Professor Michael Weiss, Honorary Research Consultant
Professor Michael Whitehouse, Honorary Research Consultant
Klintean Wunnapuk, PhD Student
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Trauma Service
Professor Michael Schuetz, Professor of Traumatology

Upper Gastrointestinal & Soft Tissue Unit
Associate Professor B Mark Smithers, Chairman
Dr Michael Hii, Fellow
Dr Ben Dodd, Fellow
Dr Adam Frankel, Research Fellow
Sharan Burton, Research Nurse
Jennifer Addison, Research Nurse
Nicole Armour, Research Officer
Henry Tang, Research Officer
Dr Iain Thomson, Staff Consultant
Janine Thomas, Trials Coordinator
Professor David Gotley, VMO
Associate Professor Andrew Barbour, VMO

Urology Department
Dr Simon Wood, Head of Department
Postgraduate Students

**PhD Completions**
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- Barraclough, K
- Carrington, Christine
- Cohen, Jeremy
- Coulson, Samantha
- Gibbons, Kristen
- Glasgow, Celeste
- Grant, Caroline
- Gullo, Gullo
- Higgins, Niall
- Howden, Erin
- Jelis, Christine
- Krishnakanth, Pushpanjali
- Kruger, Peter
- Naider, Emily
- Petchey, William
- Pimenta, Eduardo
- Rosendahl, Clifford
- Sacre, Julian
- van Eps, Carolyn
- Yamada, M

**PhD Commencements**
- Bower, Kylie
- Cho, Yeoungjee
- Gadd, Victoria
- Loechel, Nicole
- Nund, Rebecca
- Robleda Gomez, Sofia
- Thomas, Georgia
- Tufekci, Pelin
- Wheller, Laura

**PhD in Progress**
- Abd, Eman
- Alshammari, Qurain
- Amarathunga, Jayani
- Barani Lombari, Zoreh
- Berner, Arne
- Bradford, Natalie
- Burkett, Ellen
- Calleja, Pauline
- Castillo, Maria Isabel
- Chachay, Veronique
- Chandrasekaran, Navin
- Chapman, John
- Chikani, Viral
- Clark, Carolyn
- Coombes, J
- Diwan, Vishal
- Doneva, Sanja
- Fahim, M
- Fatehi, Farhad
- Francis, Amanda
- Frankle, Adam
- Fuhrman-Luck, Ruth
- Gibbons, Kristen
- Gijo, Gijo
- Gordon, Cassandra
- Grant, Caroline
- Gray, Belinda
- Hale, Andrew
- Hargrave, Cathy
- Harith, Hazreen
- Harrington, Rosumund
- Hayden, White
- Hayward, Kate
- Hesami, Parisa
- Houghton, Christine
- Krishnan, Anand
- Krishnasamy, Rathika
- Kruger, Peter
- Leung, Janni
- Liang, Xiaowen
- Liberio, Michelle
- Lisle, Jessica
- Liu, David
- Lynch, Jason
- Mahmood, Adnan
- Malekani, Javad
- Marasinghe, Rohana
- McIntyre, Deborah
- McMahon, Emma
- Mohd Radzi, Shairah
- Neep, Michael
- Nisbet, Janelle
- Niven Gary
- Pahau, Helen
- Park, Stacie
- Pizzutto, Susan
- Pokorny, Morgan
- Poudel, Arjun
- Protani, Melinda
- Pyne, John
- Reichert, Johannes
- Robinson, Kathy
- Rossi, Megan
- Sandhu, Geetpal
- Schmidt, Julia
- Schnitker, Linda
- Shariﬁ, Behroz
- Siti, Maon
- Skoien, Richard
- Small, David
- Srinivasan, Sri
- Stevenson, Graham
- Strand, Haaken
- Stylianou, Nataly
- Symons, Martyn
- Tang, Kaidun
- Taylor, Paul
- Thom, Ogilvie
- Varney, J
- Venuthurupalli, Sree Krishna
- Warren, Tim
- Watter, Kerrin
- Whelan, Megan
- Williams, Michelle
- Wunnapuk, Klienteen
- Wurzel, Danielle

**Masters Completions**
- Abrahams, Kristy
- Brady, Carole
- Clair, Jon
- McDougall, D
- Melton, Nicola
- Wadsworth, B

**Masters Commencements**
- Batten, Heather
- Bell, Kate
- Cameron, Ashley
- Fountain, Stephanie
- Fox, Carly
- Hughes, James
- Koval, Lida
- Lewandowski, Andrew
- Lynch, Genni
- Lyons, Nicole
- McLean, Donna
- Meek, John
- Patterson, Freyr
- Walker, Gener
- Windley, Jacinda
- Adams, Ryan
- Allstop, Tristan
- Amarathunga, Jayani
- Bell, K
- Calabiro, Lorenzo
- Chang, R
- Colliou, Audrey
- Deegan, Timothy
- Dolecka, Urszula
- Domergue, Anais
- Gaffney, Daniel
- Gilbert, Alice
- Joubert, Guillemette
- McCrae, Prue
- McFarlane, Janelle
- McKenzie, Ian
- Neep, Gabrielle
- Neveu, Marie
- Nunnink, Leo
- Obispo, Clara
- Poirier, Julie
- Qadi, Olla
- Schmutz, Chris
- Tam, Laura
- Taylor, Olivia
- Thompson, Lauren
- Thompson, Melissa
- Van Rompay, Jason
- Wadsworth, Brooke
- Wilce, Alice