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 17)
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Centres for Health Research 2013 Annual Research Report
Welcome to the 2013 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

The PAH sits within Metro South Health, the major provider of public health services in the Brisbane south side, Logan, Redland and Scenic Rim regions. It is one of 16 hospital and health services in Queensland and serves an estimated population of 1 million people, 23 per cent of Queensland’s population. It employs more than 13,000 staff and has an annual operating budget of $1.8 billion. 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 2013, the following services transitioned to PAH from the Department of Health:

- Public Health (Metro South) – 1 March 2013
- Organ and Tissue Services – Reporting from March 2013, financial from 1 July 2013
- Tuberculosis Services – 1 July 2013.

Education and Research

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 (UQ), Queensland University of Technology (QUT), and Griffith University, as well as several other Queensland universities.

The Princess Alexandra Hospital and the Queensland University of Technology have formed the Australian Prostate Cancer Research Centre (Queensland). Their work has created a consolidated multidisciplinary clinic and clinical trials unit for prostate cancer and other urogenital malignancies, in collaboration with Australian and Canadian Prostate Cancer Research Alliance.

Work has continued with the Queensland Head and Neck Cancer Centre (QHNCC) which was established in 2012. The Centre is a collaborative arrangement between the PAH, Translational Research Institute (TRI), UQ, Queensland Institute of Medical Research and the Australian Institute for Bioengineering and Nanotechnology. The QHNCC to deliver novel diagnostic and treatment modalities, and provide advanced education programs for head and neck cancer. To further this important work, a $5 million Positron Emission
Tomography (PET) Magnetic Resonance Imaging (MRI) unit was purchased for the hospital's Molecular Imaging Department. This project was funded from PAH Private Practice Trust Fund in conjunction with Atlantic Philanthropies and the Department of Science, Information Technology, Innovation and the Arts.

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), which was officially opened on 10 October 2013 by the Governor-General, Her Excellency the Honourable Quentin Bryce AC CVO. TRI combines the expertise of four leading research institutes (PAH, UQ, QUT and Mater Research) and is co-located with a biopharmaceutical manufacturer, Patheon. The research conducted at TRI enables new therapies and vaccines, for common and serious diseases, to be developed and tested within shorter timeframes.

The TRI Clinical Research Facility (CRF) is a controlled and safe environment to conduct research on human subjects. Located on Levels 4 and 5 of PAH R-Wing, with ready access to hospital facilities and emergency response teams, the CRF is operated by the Princess Alexandra Hospital under the Directorship of Professor Ken Ho, Chair PAH Centres for Health Research. The CRF is expected to open for research in 2014.

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 research institutes 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 staff from across the Health Service who were acknowledged through awards in 2013:

- Dr Peter Woodruff was awarded a Queen’s Birthday Honour – Member (AM) in the General Division for significant service to medicine, particularly in the field of vascular surgery and through contributions to health care standards
- Sue Golding and her cancer support team were awarded the prestigious title of Look Good Feel Better National Venue of the Year, out of 180 venues. LGBF workshops provide free information and workshops for women, men and teens to help manage the appearance-related side-effects caused by cancer treatment.

The 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.
1998-2013: 15 years of research at the Princess Alexandra Hospital

Patients have always been at the centre of research at Princess Alexandra Hospital, making the outcomes of research milestones more relevant at the bedside. In the late 1990’s this philosophy was recognised by key clinicians and academics at PAH with the establishment of the Centres for Health Research (CHR), and the start of a journey that would see health and medical research collaborations blossom between hospital clinicians, local and national universities, industry, and other research institutes, and would place PAH on the international map as one of Australia’s leading academic and research health centres.

The CHR 15th Anniversary was celebrated with a luncheon to mark the opening of the 2013 PAH Health Symposium, organised by the CHR and themed Making advances matter: research, education and treatment in partnership. Special guest was Professor Donald Cameron, former Director of the PAH Department of Diabetes and Endocrinology, President of the Royal Australian College of Physicians, and Member of the NHMRC Council, who was appointed in 1998 to lead the CHR.

With more than 25 years as clinician and clinician-scientist Professor Cameron was a key figure in driving the momentum of clinical and research integration. In 2000, the year the CHR Annual Report was first published, Professor Cameron wrote about the completion of the new PAH research building (now R Wing), new office space for the Therapeutic Research Group, and Professor Ian Frazer’s success in obtaining a grant of $1 million from the Australian Cancer Research Foundation to fit out space in the new research building which led to additional funds from the Department of State Development and The University of Queensland.

From its infancy, the CHR has grown amazingly in response to the needs and inspiration from clinical researchers. Research areas which have gained strength and have established a national or international reputation include cardiovascular, metabolic, renal, therapeutics, aged care, telehealth and health services. Among the many prestigious research initiatives on the PAH campus over the past 15 years are the Australian Prostate Cancer Research Centre-Queensland, the Cancer Nursing Research Group, the Centre for Functioning and Health Research, Diamantina Health Partners, the Lung & Allergy Research Centre, the Queensland Melanoma Project, the Translational Research Institute, refurbishment of two floors of R Wing into a Clinical Research Facility, and the Queensland Head and Neck Cancer Centre.

Professor David Theile AO, former PAH surgeon, retired CEO of Metro South Health and Chairman of the Diamantina Health Partners, says the CHR has played a key role in the development of PAH as a true academic tertiary hospital, and the decision in 1998 to establish and support the CHR was one of foresight and initiative. At the 15th Anniversary celebration Professor Theile said, ‘the Centres for Health Research, under the leadership of Professor Ken Ho, looks forward to another 15 years ...
of mentoring researchers, fostering collaborations and undertaking important research that contributes to government policy which makes a difference to patients’.

PAH research achievements 2013

This sixteenth Annual Research Report of the Centres for Health Research captures the highlights of the many outstanding achievements of the staff and students who participated in research activities across the PAH campus in 2013. In addition to the hundreds of research projects in progress on the campus, as described in this report, other significant research achievements in 2013 included:

- $41.5 million of competitive peer-reviewed grant funding received
- 800 peer-reviewed journal articles and books chapters published
- 225 postgraduate students supervised
- 185 linkages with other institutions and departments, providing evidence of integration between clinical services, research and education.

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 $1.88 million in 2013 to 37 successful applicants in support of three categories of research: People Support ($885,000), Project Support ($640,000) and Research Excellence ($361,000). We express our gratitude to the PARF and PPTF, and congratulate all the successful applicants and wish them every success with their research. In this 15th anniversary edition we looked back at the 39 Clinical Research Fellowships supported through PARF and PPTF funding, to some pleasing results.

A dynamic year for the CHR

2013 was a truly dynamic year for the CHR, the first in its new home in the Translational Research Institute. The Human Research Ethics Committee (HREC) reviewed 306 applications, an increase of 7% over 2012. Through the efforts of the Research Committee much appreciated PPTF funding was secured to establish both a research grants administration officer position and a biostatistics support service for PAH. A number of PAH Health Symposium sessions were organised to be held in the new TRI in recognition of its close association with the hospital. In addition to these and other longstanding activities, CHR responsibilities grew in 2013 to include the establishment and directorship of the new Clinical Research Facility on Levels 4 and 5 of PAH R Wing which was refurbished by the TRI in 2013.

I take this opportunity to acknowledge all the staff of the CHR 2013, who are displayed on the inside back cover. I would like to thank Kathy Harvey, CHR Research Manager, for her production of this annual report, and Maria Wojciechowski for her assistance.

I would also like to acknowledge Areti Gavrilidis who, since joining the CHR in 2002, has worked tirelessly to support, facilitate and strengthen health and medical research at Princess Alexandra Hospital. Areti was seconded in 2013 to the position of Executive Consultant for Diamantina Health Partners, while maintaining an invaluable consultancy role to the CHR.

On behalf of the CHR, it gives me great pleasure to present this sixteenth Annual Research Report, which is a summary of achievements through a wealth of research partnerships and collaborations. We look forward to continuing to work with our academic, research and health care partners.
In 1962, the newly established Queensland Cancer Fund (now Cancer Council Queensland) announced it would offer grants in support of local, Queensland-based research. Neville Davis, visiting surgeon at the Princess Alexandra Hospital, decided to apply for a grant to study melanoma, a particularly Queensland cancer.

In 1963, the Queensland Cancer Fund awarded Dr Davis and his team a two-year grant and the Queensland Melanoma Project (QMP) was born.

A small team of dedicated researchers, including surgeons, pathologists, dermatologists, research fellows and hospital administration staff embarked on an initiative that was soon recognised internationally. The project was ambitious – its aim was to record and analyse the clinical features and outcomes of all melanomas diagnosed, not just at the Princess Alexandra Hospital, but in the whole of Queensland. The scope and quality of the information that resulted was unique in the world at that time, and resulted in publications in such esteemed journals as the Lancet, Cancer, Pathology, British Journal of Surgery and the Medical Journal of Australia.

In addition, the Queensland Melanoma Project developed an educational program to help doctors diagnose and treat melanoma at an early stage. While Queensland was found to have the highest incidence of melanoma in the world, it also had the best treatment results. The Queensland Cancer Fund supported the QMP for more than 20 years, and continues to be the major non-government funder of cancer research in Queensland. The work of the QMP continues today at the Princess Alexandra Hospital under the leadership of Professor B Mark Smithers, collaborating with many organisations and institutions, with a particular focus on clinical trials to improve the treatment of melanoma. Since 1963, the QMP has published more than 100 scholarly papers and has made a significant and lasting contribution to melanoma control efforts in Queensland.

1999 Neville Davis interview
Diamantina Health Care Museum Association Inc. Oral History Project

‘...in 1962 the Queensland Cancer Fund had a public appeal and they raised quite a lot of money and they said that they were going to support research locally and I spoke to my Senior, who was Evan Thomson, and I said, “There is a bit of money for research and so we ought to do something”.

Now in 1962 and 1963 the hospital was under great pressure in relation to the X Ray Department in doing any particular investigative work and he said, “Well, what can we investigate?” and I said, “Well, what about melanoma? It’s common here and we don’t need an X Ray to diagnose it – you can use your eyes – we can get the pathology done and we could do a study. So it was decided that we would apply for a grant and we obtained a grant from the Queensland Cancer Fund and that initiated the Queensland Melanoma Project.’
QMP Co-Ordinators 1963-2013

**Dr. Neville C. Davis**
Visiting Surgeon
Princess Alexandra Hospital
Chairman Supervisory Committee (1963 – 1983)
Project Co-ordinator (1963 – 1981)

**Prof Mark Smithers**
Princess Alexandra Hospital
Visiting Surgeon (1987 – Current)
Chairman (2003 – Current)

**Dr. G. Roderick McLeod**
Research Fellow (1966 – 1968)
Senior Research Fellow (1968 – 1979)
Chairman (1982 – 2002)
The life expectancy of Australians is now among the highest in the world. While this is a proud achievement for our nation, with it comes the attendant risks of very old age: frailty, dementia, disability and dependence on others in the last few years of life. The future of the health system will increasingly be shaped by growing numbers of older people seeking diagnostic advice, supervision of their medical care, and assistance with daily tasks.

From Academic Unit to Centre for Research in Geriatric Medicine (CRGM)

The Academic Unit in Geriatric Medicine was established following the appointment of the Chair in Geriatric Medicine for The University of Queensland, Professor Len Gray, in mid-2002. The Unit set out to build on the excellent clinical and biological research already in place within the Geriatric and Rehabilitation Unit (GARU) of Princess Alexandra Hospital under the Directorship of Dr Paul Varghese.

2009 was a landmark year for research in geriatric medicine at the PAH:

- The Unit is awarded School of Medicine ‘Centre’ status by The University of Queensland: the Centre for Research in Geriatric Medicine’s (CRGM)
- CRGM is officially launched by the Parliamentary Secretary, Murray Watt
- A move into purpose built facilities, incorporating a state-of-the-art video-consulting suite, co-locates all staff for the first time in the seven year history of the group
- Research income continues to escalate, derived from four NHMRC grants, philanthropic research support and contract work; for the first time, income exceeds $1 million
- Several multi-site studies are coordinated, encompassing 15 Australian and 14 international sites
- The Centre’s first two PhD students successfully conclude their studies.

2009 also saw the CRGM commence an exciting program of work to take specialist care into the residential aged care setting through telehealth. A demonstration project in a local nursing home used video-conferencing to introduce a range of hitherto inaccessible specialties to the bedside. 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. It explored the effectiveness of Australia’s national home care program for older people discharged from hospital with complex needs – the Transition Care Program. The Centre is a member of the first NHMRC Partnership Centre (in Dementia Care) which has a 5 year budget of $25 million.
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.

CRGM is now among the most successful geriatric medicine research organisations in Australia. It has a strong multi-disciplinary focus, with researchers of diverse background contributing to its work – medicine, nursing, allied health, psychology, biomedical engineering, health economics and software development.

UQ Centre for Online Health (COH) and PAH Telehealth Centre

During 2010 Professor Gray assumed the role of Director of the UQ Centre for Online Health (COH), thus cementing the already strong collaboration between the Centres. Since 1999, the COH has been recognised internationally for its role in research, service delivery and education and training in the fields of telemedicine, telehealth and e-Healthcare. The COH’s multidisciplinary team of clinicians, academic researchers, educators, technicians, engineers and administrators brings together a broad mix of skills.

In partnership with the COH and UniQuest, a commercial enterprise called ‘RES-e-CARE’ was developed to deliver specialist care to aged care homes through telehealth. A large NHMRC project grant was secured to investigate the efficacy of the RES-e-CARE telehealth model. In 2012, in partnership with the Centre for Online Health and the Telerehabilitation Research Unit at St Lucia, over $4.5 million in funds was secured for telehealth demonstrations in aged care programs across Queensland.

In July 2012, in partnership with COH, Princess Alexandra Hospital established a new service entitled ‘Princess Alexandra Hospital Telehealth Centre’. Based within a state of the art telehealth facility, the PAH Telehealth Centre enables the hospital’s vast array of specialist expertise to be made available to a wide geographical area across north eastern Australia and beyond. The PAH Telehealth Centre comprises a suite of teleconsultation studios and support staff to develop and coordinate service systems and consultations. Telegeriatrics was one of the first four programs to be established by the Centre. Professor Gray says, ‘Our aim is to engender a world-class research and development program to gain a reputation as a telemedicine centre of excellence and the best adult telehealth service in Australia.

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Key research personnel

Professor Len Gray has formal training as a specialist geriatrician and health administration. Previously he held senior management positions in the public health system in Victoria, in general management and aged care services. His research interests focus on aged care policy, models of aged care service delivery, assessment and care planning systems, and in recent years, e-health and telemedicine strategies. He leads international development of the inter RAI Acute Care system of assessment, and is the Australian coordinator for interRAI.

CRGM welcomed Dr Ruth Hubbard as a Senior Lecturer in 2011. She was recruited from Cardiff, Wales, through the support of an Office of Health and Medical Research Fellowship. She has a passionate interest in the measurement of frailty. The application of her ideas to day to day practice has the potential to better target health interventions across a wide range of medical specialties.

Clinicians within the PAH constitute a rich repository of medical knowledge and expertise to be shared beyond conventional geographic boundaries.

A look to the future

A new Centre for Research Excellence (CRE) in Telehealth, funded by the Australian Government through the NHMRC, will be launched in September 2014 by the Health Minister Peter Dutton to improve access to health services for the more than one third of Australians living in rural and remote Australia. The $2.5 million CRE, hosted by The University of Queensland and led by Professor Gray, will focus on settings where access to health services is especially challenging such as small rural hospitals, residential aged care facilities, disabled and older Australians requiring home care, and Aboriginal and Torres Strait Islander communities. Professor Gray and his team will seek to identify the reasons for the slow uptake of telehealth in the context of general practice, and will work with a number of service providers to develop, implement and evaluate a program suitable to their needs.

Professor Len Gray
Director, Centre for Research in Geriatric Medicine
Princess Alexandra Hospital
Director, Centre for Online Health, The University of Queensland
The Queensland University of Technology’s (QUT) Institute of Health and Biomedical Innovation (IHBI) and the Princess Alexandra Hospital (PAH) continued their strong partnership in 2013. Together they deliver high-impact research that addresses real world health problems to benefit patients and the wider community.

QUT researchers at the PAH are involved in four broad research areas of addiction; trauma; nursing practice research; and cancer, including a specific focus on prostate and women’s cancers. The research outcomes from their respective research groups, the Alcohol and Drug Assessment Unit; the Trauma Research Group; the 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. Addiction, trauma and nursing researchers from IHBI, based at the PAH, published 68 papers in 2013 and 40 IHBI postgraduate students conducted their studies on the PAH campus.

**Addiction**

Collaboration to understand and treat addiction continued in 2013 between Professor Ross Young, Professor David Kavanagh, Associate Professor Karen Sullivan and Dr Fred Thorberg at IHBI with Dr Gerald Feeney and Associate Professor Jason Connor at the PAH Alcohol and Drug Assessment Unit. Research results were published in the journal Addictive Behaviours in a paper examining the measurement of alcohol craving; and Dr Fred Thorberg received funding by Norwegian Competitive Funds for his post-doctoral work.

During 2013 the group collaborated with the University of California, Los Angeles; the University of Oslo; The University of Queensland; the University of Sunshine Coast; and Bond University.

The Addiction, Neuroscience and Obesity group, located at TRI and led by Professor Selena Bartlett, continued its work on understanding brain resilience mechanisms to develop novel interventions for the treatment of addiction and obesity.

**Trauma**

The Trauma Research Group – headed by orthopaedic and trauma surgeon, IHBI Chair in Traumatology, and PAH Director of Trauma, Professor Michael Schuetz, 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 to improve community capacity to respond to trauma.

The Trauma Research Group received three grants in 2013 to work on:

- A bioactive and biodegradable scaffold and novel graft source for the repair of large bone defects
- Improving emergency department patient flows by conducting process-orientated data mining
- A clinical review of outcomes and costs for the treatment of large bone defects in the tibia.

**Cancer**

QUT’s cancer research includes the Cancer and Ageing Research Program (CARP), led by Professor Ken O’Byrne and Associate Professor Derek Richard; and The Australian Prostate Cancer Research Centre–Queensland (APCRC-Q), led by IHBI Chair of Prostate Cancer Professor Colleen Nelson and QUT Cancer Program Leader, Distinguished Professor Judith Clements.

CARP researchers are seeking to identify changes that occur to human cells and their genome that cause ageing and development of ageing diseases such as cancer, arthritis and Alzheimer’s disease. This will in turn enable CARP researchers to work on therapeutics that can prevent cancer development; develop medicines that will target most cancers; and develop therapeutics...
to combat other ageing diseases such as Alzheimer’s disease and arthritis. In 2013 the group published four peer-reviewed journal articles.

APCRC-Q develops new therapeutics and predictive biomarkers with the aim of preventing prostate cancer. The interdisciplinary team involves geneticists, protein chemists, urologists, oncologists and clinical pharmacologists whose research is facilitated through domestic and international collaborations. APCRC-Q focuses on developing therapeutic targets and biomarkers for genetic predisposition, early detection and prognosis, and understanding the molecular mechanisms underlying disease progression. The research is carried out with a translational approach to inform and drive improved clinical practice. Examples of clinical trials carried out in 2013 include:

- The first diagnostic test used to automate the capture and detection of CTCs – tumour cells that have detached from solid tumours and entered a patient’s blood
- A novel immunotherapy for the treatment of patients with prostate cancer
- Evaluating new methods of detecting prostate cancer locations
- Recruiting and continuing three additional clinical trials for new therapeutics for prostate cancer.

The trials complement additional APCRC-Q research on therapeutic target development and biomarkers for genetic predisposition, early detection and prognosis and characterisation of the molecular mechanisms underlying disease progression.

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 QUT’s School of Nursing. School of Nursing researcher Professor Patsy Yates has been appointed a Cancer Services Southern Visiting Fellow. The collaboration incorporates projects examining key health issues including:

- Using information technology to enhance a healthy lifestyle after breast cancer therapy
- Providing tailored support for head and neck cancer survivors
- A feasibility study of the use of ginger as an intervention for chemotherapy-induced nausea
- Validating a novel, low cost, automated malnutrition screening system as a predictor of nutritional risk in the Oncology Day Care Unit
- Scoping the prevalence and determinants of cardiotoxicities following cancer treatments
- A pilot study of a multicomponent non-pharmacological intervention to reduce breathlessness and associated symptoms in people with cancer
- A review of literature relating to cancer care coordinators.

The group also received NHMRC funding for the Centre for Research Excellence in End of Life Care; and an NHMRC Partnership Project Grant to investigate a novel intervention to promote women’s wellness after cancer that will be housed in the new Clinical Research Facility.

Professor Lyn Griffiths
IHBI Executive Director
Queensland University of Technology
2013 was a year of change for the UQ School of Medicine, starting with the School's laboratory-based research groups at Princess Alexandra Hospital relocating to the new Translational Research Institute (TRI) facilities during the New Year period.

A 2012 Faculty review of clinical schools led to the establishment of several new senior clinical academic appointments in 2013 with two of these roles taken up by PAH-based clinical academics. Professor Gerald Holtmann was appointed as Associate Dean (Clinical) in the Faculty of Health Sciences, to enhance leadership and representation of our clinical activities at senior executive levels in our hospital partnerships as well as in the executive of The University of Queensland. Professor Peter Soyer was appointed as Acting Head of the new PA-Southside Cluster, in a role created within the School of Medicine to provide high-level engagement at the clinical level across all clinical disciplines.

Professor Darrell Crawford, whose research group spans PAH and the Greenslopes Private Hospital, was appointed as acting, then confirmed as the new Head of School after the resignation of Professor David Wilkinson, who moved to the position of Deputy Vice Chancellor at Macquarie University.

A University-wide review of three UQ Faculties during 2013 resulted in the division of the Faculty of Health Sciences into two new Faculties, and a new, research intensive Faculty of Medicine and Biomedical Sciences emerged, promising a closer research and teaching collaboration between the Schools and the Faculty’s research centres and institutes.

In this busy, challenging period of change, UQ research groups at PAH settled into the new TRI facilities and forged ahead. There was $7 million in research income received during 2013 by SoM researchers at PAH, in TRI and elsewhere on the hospital campus, representing just under a third of the School’s research income in 2013. New NHMRC funding of $6 million commenced in 2013, and announcements late in 2013 confirmed $5.8 million in further NHMRC Project Grants and Fellowships to commence the next year.

In August, NHMRC awarded $2.5 million to establish a new Centre for Research Excellence (CRE) in Telehealth led by Professor Len Gray and bringing together an internationally recognised team from telehealth research groups in the schools of Medicine and Health & Rehabilitation Sciences: the Centre for Online Health, the Centre for Research in Geriatric Medicine, the Telerehabilitation Research Unit, and the Dermatology Research Centre, supported by technical experts in health economics, information technology, engineering, health informatics, workforce planning and management. This
The telehealth team has extensive research and translation experience in telemedicine in pediatrics, geriatrics, speech pathology, physiotherapy and dermatology and the CRE in Telehealth will focus on health service settings where access is currently challenging, such as small rural hospitals, residential aged-care facilities, people’s homes (particularly for disabled and older people), and indigenous communities.

The School also relocated its PAH-based teaching of medical students into the new purpose-designed education facilities on the entrance level of the TRI building. The facilities include seminar rooms, clinical skills training facilities, small group learning rooms and dynamic student facilities used primarily by medical, nursing and midwifery students. The location of these high-quality facilities in TRI, at the PAH campus, means that medical students are continuously exposed to exciting laboratory and clinical research, and can interact with academics and more than 60 research students at PAH, and our colleagues in UQ Diamantina, Mater Research Institute-UQ and QUT’s IHBI, making the option of the clinician/scientist career pathway real.

The incredible value of the School’s clinical academics who are engaged in teaching and research at PAH is epitomised by Professor Mark Smithers, Director of the PAH Upper Gastro-intestinal and Soft Tissue Unit. Professor Smithers has been recognised by the Royal Edinburgh College of Surgeons for his international standing as a surgeon and for his substantial contributions to research in the field of oesophageal cancer and melanoma, and the quality of his teaching of medical students was recognised with the UQMS Award for Excellence in Clinical Teaching in 2013.

Our researchers and clinical academics continue to conduct outstanding research and clinical trials, publishing the outcomes in more than 300 peer-reviewed journal articles and, more critically, translating research outcomes into the hospital’s daily clinical practice. We encourage you to read the individual research reports for more achievements from our research groups.

Associate Professor Jenny Martin
Head PA-Southside Clinical School, and Clinical Pharmacology Research Group

Professor Peter Soyer
Head PA-Southside Cluster of the School of Medicine, and Director Dermatology Research Centre

Professor Darrell Crawford
Head School of Medicine, and Director Liver Research Centre
Postgraduate Research

The number of research higher degree students under the supervision of Princess Alexandra Hospital staff continued to increase in 2013. Included in the Postgraduate Students section are the names of the 227 students who make up this year’s impressive list:

**PhDs in 2013**
- 22 completed
- 44 commenced
- 92 in progress

**Masters in 2013**
- 21 completed
- 16 commenced
- 33 in progress

**Linda Schnitker**

*Developing quality indicators for the care of older persons with cognitive impairment presenting to emergency departments*

Linda is a full time PhD candidate at the Centre for Research in Geriatric Medicine (CRGM). Her PhD is focused on improving the care for the older people with cognitive impairment in emergency departments.

In the coming years, as the population is ageing, emergency department (ED) presentations of older people with cognitive impairment (CI) will increase. Older ED patients with CI have specific care needs. For example they may have difficulties in communicating their presenting complaint or comprehending ED instructions, they may exhibit unusual behaviours, or they may present with an overwhelmed carer.

The aim of this study was to contribute to the improvement of the quality of care of the older ED population with CI by developing quality indicators (QI). QIs play an important role in quality improvement. An evaluation of the quality of care, by using QIs, assists in identifying whether evidence-based care practices occur in EDs. Improvement strategies can be implemented for those QIs that indicate that there is a quality of care issue.

A structured research approach was taken for the development of the QIs. The methodology included, 1) a comprehensive search of the literature, 2) a consultative process engaging experts in care of older people and epidemiologic methods, leading to development of a draft set of QIs, 3) field testing of drafted QIs using a cohort consisting of 580 older ED patients and eight Australian EDs (including the Princess Alexandra Hospital) and 4) an independent voting process among the panellists for final QI selection.

At the conclusion of the process a set of structural and process indicators was developed. Structural indicators pertained to: organisational policies, procedures or protocols targeting the management of older ED patients with CI and their carers, assessment and management of pain and behavioural issues, and delirium prevention. The process indicators targeted: cognitive screening, delirium screening, evaluation of acute change in mental status, delirium risk assessment, delirium aetiology, proxy notification, collateral history, involvement of nominated support person, pain assessment, disposition, and ED length of stay.

Applying resulting QIs will identify an emergency services’ implementation of care strategies for older ED patients with CI. Awareness of the QI triggers at an ED level enables implementation of targeted interventions to improve any sub-optimal structure and processes of care.
Rebecca is a speech pathologist who is completing her doctoral studies at the Centre for Functioning and Health Research (CFAHR). She is exploring the lived experience of swallowing difficulties associated with curative, non-surgical management for head and neck cancer from the perspective of the head and neck cancer survivor and their carer. Rebecca has a special interest in the International Classification of Functioning, Disability and Health (ICF) and its application to swallowing disability and third-party disability in head and neck cancer.

Despite what is known about swallowing difficulties associated with non-surgical head and neck cancer management in terms of its prevalence, severity, physiological characteristics, and associated effects of quality of life, little is known about the key factors that impact the daily lives of head and neck cancer survivors. Additionally, as food, eating, and meals are largely social, the presence of swallowing difficulties are also likely to impact on the life of the carer.

The primary aim of Rebecca’s PhD, which took place across the PAH Radiation Oncology and Speech Pathology Departments, was to describe the experiences of living with and adjusting to swallowing difficulties, using qualitative descriptive methodology, from the perspectives of the head and neck cancer survivors and their carers. Rebecca’s project also aimed to examine the application of the ICF in describing the functioning (and disability) of head and neck cancer survivors with swallowing difficulties and their carers.

The results of this body of work demonstrated that both head and neck cancer survivors and their carers experience a multitude of negative effects on their everyday lives because of the swallowing difficulties of the head and neck cancer survivor. In addition, analysing the results using the ICF verified the complex and diverse nature of swallowing difficulties, beyond the physiological changes to the swallow mechanism, highlighting the far reaching life effects. The insights gained from this project provides evidence for more holistic assessment and management of swallowing difficulties and also provides evidence for the essential inclusion of carers in the management of swallowing difficulties.
Clinical Research Fellowships 1999-2013

The PA Research Support Scheme is funded by the PA Research Foundation and the PAH Private Practice Trust Fund, and administered through the PAH Centres for Health Research. Fellowships are awarded under the PA Research Support Scheme to provide stipend support to assist advanced trainees to begin a career in research while developing their clinical skills and experience.

39 Clinical Research Fellowships have been awarded across the Scheme’s 15 year history:

<table>
<thead>
<tr>
<th>Fellowship Year</th>
<th>Recipient</th>
<th>Department/Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Helen Juffs</td>
<td>Haematology</td>
</tr>
<tr>
<td>1999</td>
<td>Joshua Geffen</td>
<td>Mental Health</td>
</tr>
<tr>
<td>1999</td>
<td>Rachel Thomson</td>
<td>Respiratory and Sleep Medicine</td>
</tr>
<tr>
<td>2000</td>
<td>Katherine Stuart</td>
<td>Gastroenterology and Hepatology</td>
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<tr>
<td>2000</td>
<td>Robyn Leigh</td>
<td>Mental Health</td>
</tr>
<tr>
<td>2000</td>
<td>Trisha O’Moore-Sullivan</td>
<td>Diabetes and Endocrinology</td>
</tr>
<tr>
<td>2001</td>
<td>Domenika Turkiewicz</td>
<td>Surgery</td>
</tr>
<tr>
<td>2001</td>
<td>Peter Whiting</td>
<td>Gastroenterology and Hepatology</td>
</tr>
<tr>
<td>2001</td>
<td>Yaser Baqer</td>
<td>Mental Health Services</td>
</tr>
<tr>
<td>2002</td>
<td>Domenika Turkiewicz</td>
<td>Surgery</td>
</tr>
<tr>
<td>2002</td>
<td>Lydia Rusch</td>
<td>Mental Health</td>
</tr>
<tr>
<td>2002</td>
<td>Sue Mien Yeoh</td>
<td>Diabetes and Endocrinology</td>
</tr>
<tr>
<td>2003</td>
<td>Emma McBryde</td>
<td>Infection Management</td>
</tr>
<tr>
<td>2003</td>
<td>Martin Wood</td>
<td>Neurosurgery</td>
</tr>
<tr>
<td>2003</td>
<td>Michael Keogh</td>
<td>Diabetes and Endocrinology</td>
</tr>
<tr>
<td>2004</td>
<td>Lizelle Hanekom</td>
<td>Cardiology</td>
</tr>
<tr>
<td>2004</td>
<td>Sarah Olson</td>
<td>Neurosurgery</td>
</tr>
<tr>
<td>2004</td>
<td>Stuart Moir</td>
<td>Cardiology</td>
</tr>
<tr>
<td>2005</td>
<td>Carolyn van Eps</td>
<td>Nephrology</td>
</tr>
<tr>
<td>2005</td>
<td>David Sturgess</td>
<td>Intensive Care</td>
</tr>
<tr>
<td>2006</td>
<td>Cynthia Ong</td>
<td>Diabetes and Endocrinology</td>
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<tr>
<td>2006</td>
<td>James Hare</td>
<td>Cardiology</td>
</tr>
<tr>
<td>2006</td>
<td>Nghi Mai</td>
<td>Cardiology</td>
</tr>
<tr>
<td>2007</td>
<td>Kevin Lau</td>
<td>Surgery</td>
</tr>
<tr>
<td>2007</td>
<td>Mohammed Kaiser</td>
<td>Nephrology</td>
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<td>2008</td>
<td>Carolyn Clark</td>
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<td>2008</td>
<td>Chris Thomas</td>
<td>Surgery</td>
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<td>2008</td>
<td>Malcolm Turner</td>
<td>Rheumatology</td>
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<tr>
<td>2009</td>
<td>Colm Keane</td>
<td>Haematology</td>
</tr>
<tr>
<td>2009</td>
<td>Sandhir Prasad</td>
<td>Cardiology</td>
</tr>
<tr>
<td>2010</td>
<td>Emma Clarkson (nee Igras)</td>
<td>Surgery</td>
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<tr>
<td>2010</td>
<td>Mohamed Saleem</td>
<td>Pathology</td>
</tr>
<tr>
<td>2011</td>
<td>Helen Benham</td>
<td>Rheumatology</td>
</tr>
<tr>
<td>2011</td>
<td>Rathika Krishnasamy</td>
<td>Nephrology</td>
</tr>
<tr>
<td>2011</td>
<td>Richard Skoien</td>
<td>Gastroenterology and Hepatology</td>
</tr>
<tr>
<td>2012</td>
<td>Tim Warren</td>
<td>Surgery</td>
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<tr>
<td>2012</td>
<td>Viral Chikani</td>
<td>Diabetes and Endocrinology</td>
</tr>
<tr>
<td>2013</td>
<td>Mathivathana Indrajith</td>
<td>Cardiology</td>
</tr>
<tr>
<td>2013</td>
<td>Sandya Jalapu</td>
<td>Diabetes and Endocrinology</td>
</tr>
</tbody>
</table>

A survey of Fellowship recipients conducted in early 2014 revealed some pleasing and important results. Of the 26 (72%) who responded:

- 11 (43%) reported peer-reviewed publications which arose from the research they conducted during the Fellowship
- 16 (62%) reported peer-reviewed publications since completion of the Fellowship year
- 20 (77%) continued to conduct clinical research post the Fellowship Year

- 16 (62%) undertook a research higher degree, including:
  - 3 Research Masters (12%)
  - 12 PhD (48%),

Overall, the respondents reported:

- 111 peer-reviewed journal articles published
- 4 patents generated
- 1 book published.
COMMITTEE REPORTS
The Metro South Human Research Ethics Committee (MS HREC), established and administered within the PAH Centres for Health Research (CHR), reviews the ethical and scientific validity of proposed research protocols for compliance with endorsed national standards and guidelines across Metro South Health. The MS HREC also continues to participate in the National Approach for the single ethical review of multicentre studies with Queensland, New South Wales, South Australia and Victoria.

In 2013 the Committee saw an increase of 7% in applications from the previous year, with 306 applications received. This increase was directly attributable to applications for exemption from full HREC review: that is, quality activities requiring ethical oversight. Under the National Approach, the mutual acceptance of ethical and scientific review of multi-centre interstate clinical trials undertaken by Public Health Organisations (PHO), which reduces the duplication of ethical review across multiple centres, saw an equal number of clinical trials reviewed as in 2012.

The MS HREC successfully obtained NHMRC recertification to continue to participate in the National Approach for the single ethical review of multicentre studies. The MS HREC is certified in the following categories: Clinical Trials I-IV, Clinical Interventional Studies other than Clinical Trials, Population and/or Public Health; Qualitative, Mental and Paediatric Research. In addition, the following categories have been added to the MS HREC certified portfolio: Clinical Trial Drugs and Devices, Clinical Trials Other, Clinical Trials Surgery and Other Health and Medical Research including Allied Health, Drug and Alcohol, Health Science and Nutrition and Dietetics Research.

Our recent success in achieving certification under the NHMRC’s National Approach places further responsibility on the Centres for Health Research to establish a health service wide Monitoring Program to ensure ongoing human research projects granted ethics approval by the MS HREC are conducted appropriately (National Statement (2007) Chapters 3.3.19-3.3.22 and 5.5.1-5.5.10). In 2013, twenty-nine monitoring visits were conducted. The overall standard of research conduct was good with no concerns for participant safety with the most common finding relating to participant consent and the establishment of staff delegation logs to ensure research staff were cognisant of their research responsibilities. Feedback sought from all researchers involved in monitoring visits has been overwhelmingly positive and included some suggestions for further improvement of the Monitoring Program.

Training and Development

Several members of the Committee and the Ethics Secretariat attended a number of professional development meetings including the following training and education forums:

- Eleven Members of the HREC and the HREC Coordinator attended the training session run by Professor Colin Thomson, University of Wollongong, and Dr Gary Allen, Griffith University, organised by at The Prince Charles Hospital on 21 and 22 March 2013. This training session was aimed at ensuring that members of certified HRECs were appropriately trained according to the National Statement (2007) Section 5.1.28) in preparation for recertification.
- MS HREC Deputy Chair, Associate Professor Richard Roylance, attended the 2013 Intensive Research Ethics Course in December 2013 funded by the PPTF. The Course, run by Monash University and facilitated by Professor Colin Thomson, is held annually in Victoria and covers a depth and range of ethics related subject matter, from monitoring research to human genetics, and is recognised as a premier event in this field.
- 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.

HREC Membership

2013 saw the resignation of Dr Sean Hatherill from the Committee. Dr Hatherill was a longstanding member of the Committee since July 2010 and the Committee applauds his contributions, particularly in the review of studies related to Mental Health.

The institution sincerely appreciates all former members for their contributions, warmly welcomes the new members, and thanks all current members for their hard work and dedication, without which research could not be conducted within Metro South Health.

Metro South Human Research Ethics Committee Members 2013:

- Associate Professor Maher Gandhi, Chair
- Associate Professor Scott Campbell, Renal Physician, Deputy Chair
- Associate Professor Richard Roylance, Paediatrician, Deputy Chair
- Mr John Bennett, Lawyer
- Dr Mary Boyde, Professional Care / Nursing
- Dr Wendy Foley, Professional Care / Nutrition
- Professor Rick Jackson, Physician and Researcher
- Dr Jennifer Jones, Professional Care / Clinical Ethics
- Associate Professor Karam Kostner, Physician and Researcher
- Ms Beverley Gaye Kurkowski, Lay Person Female
- Dr Adam La Caze, Pharmacist
- Dr Elizabeth McCaffrey, Oncologist and Researcher
- Associate Professor Peter Mollee, Haematologist and Researcher
- Mr Kelly Perkins, Professional Care / Nursing
- Associate Professor Gail Robinson, Clinical Director Mental Health
- Dr Malcolm Smith, Lawyer
- Dr Lyndall Spencer, Professional Care / Nursing
- Mrs Florence Spurling, Pastoral Care Role
- Dr Paul Spurling, Lay Person Male
- Mr Col Sutcliffe, Lay Person Male
- Ms Mabel Tsui, Lay Person Female
- Professor Amanda Wheeler, Academic Researcher

Standing L-R: Dr Wendy Foley, John Bennett, Professor Amanda Wheeler, Dr Adam La Caze, Dr Paul Spurling, Colin Sutcliffe, Kelly Perkins, Associate Professor Peter Mollee, Beverley Kurkowski, Professor Rick Jackson

Seated L-R: Florence Spurling, Sonia Hancock (MS HREC Coordinator), Associate Professor Richard Roylance, Professor Maher Gandhi, Dr Mary Boyde

Not pictured: Associate Professor Scott Campbell, Dr Jennifer Jones, Associate Professor Karam Kostner, Dr Elizabeth McCaffrey, Associate Professor Gail Robinson, Dr Malcolm Smith, Dr Lyndall Spencer, Ms Mabel Tsui
The role of the Research Committee of the Princess Alexandra Hospital, administered within the Centres for Health Research, is to promote a strong culture of research excellence and collaboration among the clinical PAH community, with the aim of improving human health. Its goals are to provide education and training in research methods, ethics and governance, and to promote cross-disciplinary collaboration. The Committee is represented by clinical and non-clinical divisions of the PAH, the Metro South Human Research Ethics Committee, UQ School of Medicine, UQ Diamantina Institute, and Queensland University of Technology.

The Research Committee provides strategic advice to and manages the PA Research Support Scheme, a joint venture of the PA Research Foundation and the Private Practice Trust Fund (PPTF). This competitive peer-reviewed Scheme supports research aimed at improving patient health. In 2013 the Scheme awarded over $1.88 million in support to three categories of research: People Support ($885,000), Project Support ($640,000) and Research Excellence ($361,000). A total of 37 researchers from the following disciplines and departments were successful: Australian Prostate Cancer Research Centre–Queensland, Cardiology, Centre for Functioning and Health Research, Endocrinology, Gastroenterology and Hepatology, the Endocrine Hypertension Research Unit, Intensive Care Medicine, Institute for Health and Biomedical Innovation (QUT), Lung Allergy Research Centre, Medical Oncology, Mental Health, Radiology, Speech Pathology, Surgery, and the UQ Diamantina Institute. In 2013 membership by a postdoctoral representative was introduced.

In 2013 the Committee secured funding from the PPTF to establish both a research grants administration officer position, which commenced in June, and a biostatistics support service for PAH campus-based research staff, which is expected to start in early 2014. Both initiatives are managed under the auspices of the Centres for Health Research.

The Research Committee continued to profile research by incorporating research presentations in the PAH Medical and Surgical Grant Rounds. In addition, the Committee provided input into the program theme, content and structure of the annual PA Health Symposium, which in 2013 had the theme Making Advances Matter: Research, education and treatment In partnership. The PAH International Fellow, Professor Stephen Durham from the Royal Brompton Hospital and Imperial College, London, delivered the Symposium plenary lecture (Advances in allergen immunotherapy for allergic respiratory disease) and the Kurt Aaron Oration lecture (Allergy and immunotherapy: a historical perspective).

The work of the Research Committee receives strong support from the PAH Executive, who values the strategic advice it receives to sustain the varied research that occurs on the PAH campus whilst encouraging the scope of research to broaden and evolve.

Research Committee Members 2013:
- Professor Ken Ho, Chair
- Dr Nigel Brown
- Professor Maher Gandhi
- Ms Areti Gavrilidis
- Professor Len Gray
- Ms Kathy Harvey
- Associate Professor Carmel Hawley
- Dr Ingrid Hickman
- Professor Gerald Holtmann
- Ms Kerri Holzhauser
- Dr Megan Probyn
- Professor Michael Schuetz
- Professor Michael Stowasser
- Dr Michael Wagels
- Associate Professor Euan Walpole
- Professor Elizabeth Ward
- Dr Bruce Wyse
The PA Research Foundation funds lifesaving research aimed at developing better diagnoses, treatments and preventions for some of Australia’s biggest health challenges. The PA Research Foundation is fortunate to receive donations from the general public, the business community, bequests, PA hospital staff and from the thousands of patients and their families who have benefited from the medical treatment provided by the PA Hospital.

The PA Research Foundation supports PAH-based researchers from Queensland Health, The University of Queensland, Queensland University of Technology, Griffith University and Mater Medical Research Institute. Our researchers are at the forefront of discoveries across all health and medical research disciplines including medical, nursing, allied health and basic research.

The PA Research Foundation is a statutory authority established in 1984 to raise funds for 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. Since the recent opening of the Translational Research Institute (TRI) on the PAH campus, research performed by PAH-based scientists and clinical researchers has been moved 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 2013 the PA Research Foundation contributed $682,000 to the PA Research Support Scheme, a scheme administered by the Centres for Health Research to 26 outstanding applicants from a variety of disciplines, including: the PAH Departments of Surgery, Cardiology, Speech Pathology, Intensive Care, Cancer Services, Otolaryngology (Head and Neck Surgery), Addiction and Mental Health Services, and Gastroenterology; UQ’s School of Medicine and Diamantina Institute; QUT’s Institute for Health and Biomedical Innovation; and the Australian Prostate Cancer Research Centre–Queensland.

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.

PA Research Foundation Board of Directors 2013:

- Mr Robert Bowen, Chairman
- Mr Richard Ashby, AM
- Mr Michael Back
- Mr Richard Bowly
- Mr Cameron Buchanan
- Ms Karina Collins
- Mr William Deutrom, OAM
- Professor Ian Frazer
- Mr Andrew Griffiths
- Professor Ken Ho
- Ms Narelle Smith
- Dr David Theile Senior, AO
- Mr Bob Vines
The Health Practitioner Research Collaborative (HPRC) includes researchers and health practitioners providing diagnostic, rehabilitative and clinical support to hospitals and the community through specialised services. The purpose of the HPRC is to lead, develop and support relevant multi-disciplinary translational research and its application into practice across the continuum of care which is recognised at state, national and international levels.

During 2013, health practitioner research continued to grow and partnerships and multi-disciplinary research relationships were forged across Metro South Health and beyond. Health practitioner researchers were encouraged to collaborate and contribute to the themed areas of the Diamantina Health Partners and took up the opportunity to become associate members of the Translational Research Institute.

Early in the year, Professor Monica Wammen-Norvedt, Vice Dean Centre for Evidence-Based Practice, Bergen University College (and colleagues) and Professor Sally Borbasi, Associate Dean Learning and Teaching, Faculty of Health Sciences, Australian Catholic University, visited the Princess Alexandra Hospital. The visitors were most impressed by the nursing, medical and allied health sessions highlighting successful health research translation models, evidence based practice strategies and resources.

The Centre for Functioning and Health Research, Centre for Community Science and Social Health, Griffith Health Institute (Griffith University) and the Consumer and Community Engagement (CCE) Team (Metro South Health) partnered to develop a program of research, tools and training to foster consumer engagement in research activities. Sue Pager and Pim Kuipers led the project in response to the Metro South CCE Strategy. ‘Roles for Consumers in Research’ forums were well received and resources such as a consumer research engagement framework were developed. It is exciting to see allied health researchers leading the way in this important area.

During the year, clinical researchers provided an allied health perspective to the development of the national
Research Ethics and Governance Directive and Standard Operating Procedures, and were involved in the Paxton Partners Environmental consultative process exploring research definitions for the purposes of activity based funded models. Continuing to foster research procedures and funding models which consider health practitioner research needs will contribute to building translational opportunities and ultimately patient centred-care.

Allied health research productivity across Metro South Health increased once again in 2013 and was showcased in many forums including the impressive Division of Rehabilitation Research Symposium. Successful health practitioner research funding was attained including NHMRC, PA Research Support Scheme and Health Practitioner Research grants, in-house Community Rehabilitation Workforce Grants for seeding small projects, and many others. The details of the successful funding bids, peer-reviewed publications, awards, and post-graduate research programmes can be found in individual departmental/area reports.

Sue Pager left the Research Workforce Development Position and we welcomed Dr Rachel Elphinston. I would like to thank Sue for her significant contributions to the Centre of Functioning and Health Research and building research capacity and collaborations across Metro South Health.

Translational health practitioner research will continue to flourish with the ongoing investment in dedicated health practitioner research positions and fellowships, the fostering of partnerships with other healthcare researchers and consumer groups, and the research capacity building of clinicians through sharing of resources such as the new statistical services, multi-disciplinary research training opportunities and the Princess Alexandra Hospital Clinical Research Facility.

### Health Practitioner Research Collaborative Members 2013:

- Dr Jennifer Lethlean, Chairperson
- Delena Amsters, Research Officer, Spinal Outreach Team, PAH
- Gertrude Armitt, Physiotherapist, PAH
- Judith Coombes, Senior Pharmacist, PAH
- Dr Emma Finch, Conjoint Research Fellow, Speech Pathology, PAH/UQ
- 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
- Linda Orazio, Dietitian PAH
- 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, PAH
- 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
The Acquired Brain Injury Outreach Service (ABIOS) is a specialist community-based rehabilitation service that provides advice and support for clients, carers, and workers who 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.

ABIOS had an extremely successful year in research with many new grants for research secured. In conjunction with Griffith University and University of Queensland researchers, ABIOS was successful in obtaining an NHMRC grant to explore different modalities of metacognitive training for people with brain injury. New research began exploring the use of Acceptance and Commitment Therapy for people with brain injury, with funding received through the Health Practitioner Research Grant Scheme and the Community Rehabilitation Workforce Project Research Grant Scheme.

ABIOS was also successful in the completion and publication of previous research in areas of knowledge translation for allied health professionals, social support for people with brain injury, and parenting following brain injury.

Research Activities

Clinical Trials

Comparison of error-based and errorless learning for people with severe traumatic brain injury (Owensworth T, Fleming J, Tate R, Shum D, Griffin J, Schmidt J, Lane-Brown A, Kendall M, Chevignard M)

Recruitment commenced in 2013 for this NHMRC funded trial which involves collaboration between ABIOS, the Brain Injury Unit (PAH), Griffith University, The University of Queensland, University of Sydney, Brain Injury Unit (Royal Rehabilitation Centre, Sydney), Australian Catholic University, Brain Injury Unit (Liverpool Hospital), University Pierre and Rehabilitation Department for Children with Acquired Brain Injury (Saint Maurice, France).

Other Research

Living a valued and meaningful life after brain injury: using Acceptance and Commitment Therapy in community-based rehabilitation (Goddard K, Wright S, Broughton M, Kendall M)

Data collection commenced in 2013 for this Health Practitioner Research Grant Scheme funded study to evaluate Acceptance and Commitment Therapy for people with acquired brain injury. ACT involves taking effective action guided by life values and being fully present and engaged, and has improved functionality and wellbeing for other clinical populations.

Using social networks analysis (SNA) and community asset mapping (CAM) to inform community rehabilitation: an innovative service pilot in rural/regional Queensland (Kendall M, Amsters D, Nance J, Kuipers P, Schuurs S)

Funded under a Community Rehabilitation Workforce Project grant, this project aims to explore the utility of two methodologies, namely Social Networks Analysis (SNA) and Community Asset Mapping (CAM) as tools to assist community rehabilitation, particularly in rural or regional locations.

The efficacy of telehealth for delivery and sustainability of community rehabilitation programs for adults with acquired brain injury in Queensland (Turner B, Kennedy A, Kendall M, Smith A)

Funded under a Community Rehabilitation Workforce Project grant, this project will examine the efficacy of
home-based telehealth technology in the delivery of the 6-week STEPS Skills Program to adults with ABI and their families in rural and remote communities throughout Queensland, and for the ongoing training and development of the peer-professional workforce of the STEPS Program.

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 was completed during 2013, with data analysis continuing.

Improving community-based rehabilitation for Aboriginal and Torres Strait Islander Queenslanders with acquired brain injury (Gauld S, Smith S, Kendall M)
This ongoing project 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 2013 work continued to focus on the development and evaluation of training resources for Aboriginal and Torres Strait Islander Health Workers.

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. Phase 1, which explored family engagement through interviews, was completed during 2013. Phase 1 findings were disseminated and utilised to inform Phase 2, which is continuing to evaluate changes within the inpatient setting.

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)
See SPOT report

Fellowships, Awards and Prizes
Morriss E
• Fellow of the Australian Psychological Society (APS) for recognition of outstanding contribution to the APS and to the advancement of psychological knowledge or practice

National and International Presentations
Gauld S, Smith S
• ‘Partnership Outcome: Brain Injury Training and Support Programme for Aboriginal and Torres Strait Islander Health Workers’:
  - National Rural Health Conference, 7-10 Apr 2013, Adelaide
  - National Allied Health Conference, 17-18 Oct 2013, Brisbane
The Alcohol and Drug Assessment Unit (ADAU), located within the Princess Alexandra Hospital Division of Medicine, is a small, multidisciplinary addiction treatment service. The Unit provides inpatient consultation liaison services and outpatient treatment programs. Patients are referred from within the PAH and from the community. Treatment approaches predominantly involve Cognitive Behavioural Therapy (CBT) and include relapse-prevention medication.

The Unit conducts research directly related to improving patient outcomes. In 2013 this included development and validation of psychometric instruments to reliably measure alcohol craving, alexithymia and cannabis problems. For patients with alcohol dependence (the most frequently referred condition), the Unit also began a clinical trial that aims to more effectively target specific aspects of patients’ treatment needs.

ADAU research involves collaboration with national (The University of Queensland, Queensland University of Technology) and international (UCLA, University of Plymouth) groups.

Associate Professor Gerald F.X. Feeney
Medical Director

Research Activities

Clinical Trial

**Targeted alcohol treatment**

In 2013 ADAU initiated a clinical trial that aims to more effectively target individual patient needs. The trial profiles key prognostic psychological and genetic markers in alcohol dependence treatment. This Cognitive Behavioural Therapy (CBT) program includes adjunctive relapse-prevention medication and aims to improve treatment outcomes over standard CBT treatment.

Other Research

**Other research in ADAU in 2013 included:**

- development of psychometrically valid alcohol craving scales
- psychiatric comorbidity of cannabis users referred for treatment
- validation of a Alexithymia Scale in alcohol dependent patients
- application of ADAU developed cannabis outcome expectancies (CEQ) and cannabis refusal self-efficacy (CRSEQ) questionnaires, in a treatment population.

Fellowships, Awards and Prizes

**Connor J**

- Admitted as a Fellow of the Australian Psychological Society

**Gullo M**

- Early Career Research Award, Australian Psychological Society
- Early Career Award for Excellence in Science and Research, Australasian Professional Society on Alcohol and other Drugs

National and International Presentations

**Connor JP**

- ‘The role of cognitive theory in addiction’, Addiction Therapy-2013: International Conference and Exhibition on Addiction Research & Therapy, 22-24 July 2013, Las Vegas USA

**Connor JP**

Connor JP, Gullo MJ, Feeney GFX, Young RMcd
• ‘Facilitating behavioural change: the significance of social learning theory for health psychologists’, Inaugural Australian Psychological Society Health Psychology Conference, 5-6 Apr 2013, Cairns

Connor JP, Gullo MJ, Young RMcd, Kavanagh DJ, Saunders JB, Feeney GFX
• ‘Social cognitive theory and substance use disorders’, June 2013, Institute of Psychiatry, King’s College London UK

Gullo KJ, Connor JP, George SM, Kelly AB, Young RMcd
• ‘A prospective study of mediating cognitive mechanisms in impulsive alcohol use by adolescents’, Australasian Professional Society on Alcohol and other Drugs Conference, 24-26 Nov 2013, Brisbane

Pegum N, Connor JP, Young RMcd, Feeney GFX
• ‘Cognitive and psychosocial functioning in patients with alcohol-related liver disease pre- and post-liver transplantation’, Inaugural Australian Psychological Society Health Psychology Conference, 5-6 Apr 2013, Cairns

Symons MJ, Connor JP, Feeney GFX, Young RMcd, Gallagher M, Wiles J
• ‘Machine learning as an adjunct to clinical decision making for alcohol dependence treatment’, 4th World Conference on Psychology, Counseling and Guidance, 24-26 May 2013, Istanbul Turkey

• ‘A prospective study of alexithymia and quality of life among alcohol treatment seekers’, 121st Annual Convention of the American Psychological Association, 31 July-4 Aug 2013, Hawaii USA
The Princess Alexandra Hospital Anaesthetic Department has an active Research Unit led by its Director of Research, Dr Pal Sivalingam. In 2013 the Unit continued its involvement in many research trials ranging from the multinational collaborative trial POISE 2 Peri-operative ischemic evaluation study, RELIEF, BALANCED, and METS, to smaller local trials.

Catherine Jowett continued as the Department’s Research Nurse, a full-time position made possible through the hospital private practice trust fund and one which provides day-to-day research management and helps to expand research activities involving medical students, residents, anaesthetic registrars and consultants. The Unit also plays an active role in UQ medical students’ research projects and postgraduate anaesthetic trainee research projects and continues to generate and promote research interest among senior and junior medical staff.

The activities of the Anaesthetic Department Research Unit are expanding and growing, including partnership with other departments within the Princess Alexandra Hospital and collaboration with Australian and New Zealand College of Anaesthetists (ANZCA) trial group initiated multinational trials.

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)
An 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. Worldwide recruitment concluded in January 2014 with a total of 10,010 patients including 30 from the Anaesthetic Department.

Measurement of Exercise Tolerance for Surgery (METS) study; six–minute walk test substudy (Hall A, Ferris R, Sivalingam P, Castle E)
An international multicentre prospective cohort study of cardiopulmonary exercise testing for improving preoperative risk stratification for major non-cardiac surgery. Metro South human research ethics approval was received, with patient recruitment to commence in June 2014.

The BALANCED Anaesthesia Study (Wilkes T, Sivalingam P)
International multicentre prospective, randomised clinical trial of two levels of anaesthetic depth on patient outcome after major surgery. Metro South human research ethics application approval received in November 2013.

The RELIEF Trial: Restrictive versus Liberal Fluid therapy in major abdominal surgery (Moser B, Sivalingam P)
Australian and New Zealand College of Anaesthetists Trials Group (ANZCA TG) and the Australian and New Zealand Intensive Care Society Clinical Trials Group (ANZICS CTG). Metro South human research ethics application approval received in October 2013. Recruitment will commence in January 2014.

IronNOF trial (Sivalingam P, Ward N)
A multi-centre, prospective, double blind, randomized, placebo controlled trial of intravenous iron to reduce transfusion and improve post-operative haemoglobin in patients with fractured neck of femur. Metro South human research ethics application processes were under way in 2013.

Evaluation of peri-operative frailty to determine post operative outcomes in elderly patients undergoing elective and emergency surgery. Metro South human research ethics approval was received, with patient recruitment to commence in June 2014.
The APCRC-Q is an initiative between the Queensland University of Technology (QUT) and Princess Alexandra Hospital. In 2013 the majority of APCRC-Q staff and students relocated to the new Translational Research Institute on the PAH campus.

The Centre experienced several highlights in 2013, including two significant funding awards: $6.2 million from the Australian Government Department of Health and $4.25 million for a Movember Revolutionary Team Award administered by the Prostate Cancer Foundation of Australia. These funds enabled the Centre to continue its research and clinical activities, including the establishment of clinical trials for new drugs to treat advanced prostate cancer. APCRC-Q continued to recruit patients for clinical trials through the Multidisciplinary Team Clinic for Advanced Prostate Cancer. A new prostate cancer imaging trial was established in collaboration with the Greenslopes Private Hospital and the Royal Brisbane and Women’s Hospital. The Centre continued to develop the Circulating Tumour Cell (CTC) facility and was engaged in a Movember global collaborative CTC project.

Members of the APCRC-Q received two NHMRC project grants totalling $1.1 million and were awarded an additional twelve grants, totalling $2.4 million, from other funding sources. APCRC-Q continued to strengthen its national and international research collaborations in 2013. As the Australian headquarters of the Australian-Canadian Prostate Cancer Research Alliance, the Centre hosted the annual Alliance Symposium attracting over 110 delegates from six countries. In late 2013 APCRC-Q was selected as the Queensland node of the new Australian Prostate Cancer Clinical Registry funded by Movember. The Centre was also engaged in the Diamantina Health Partners Comprehensive Cancer Program. Professor Colleen Nelson leads the Prostate Cancer Stream within this program.

Research Activities

Clinical Trials


The APCRC-Q operates Australasia’s only Veridex CellSearch® (Johnson & Johnson) Circulating Tumour Cell (CTC) 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.

A randomized, double-blind, Phase 3 efficacy trial of PROSTVACTM-V/F± GM-CSF in men with asymptomatic or minimally symptomatic metastatic, castrate-resistant prostate cancer (Wood S, Ng KL, Oleinikova I, Jovanovic L)

BNIT-PRV-301 is a three-arm, randomized, placebo-controlled, Phase 3 trial of a novel immunotherapy for the treatment of patients with prostate cancer. Approximately 1200 subjects will be recruited at 250 to
300 research centres worldwide planned to take part. PAH is one of five Australian participating centres.


68Ga-PSMA PET and MP MRI will be compared with whole-mount pathology to evaluate the applicability of 68Ga-PSMA PET and MP MRI for detecting and locating tumour foci as well as to characterise 68Ga-PSMA uptake in patients with localised prostate cancer. Imaging results will be compared with whole-mount prostate gland histology.

**COMET 2: 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 clinical trial of Cabozantinib (XL184) versus mitoxantrone plus Prednisone in men with previously treated symptomatic castration-resistant prostate cancer.

**PROSPER (Lehman M)**

This Phase 3 clinical trial is a randomized, placebo controlled study of Enzalutamide in patients with non-metastatic castration resistant prostate cancer.

**RAVES (McCaffrey E)**

Patient recruitment is currently being undertaken for this Phase 3 clinical trial for Adjuvant versus early salvage External Beam Radiation Therapy for pT3/4 or R1.

**Other Research**


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) with an ultimate goal of discovering and commercialising the next generation of drugs derived from natural products (drawn mainly from Queensland’s tropical regions).

**To study how prostate tumour metastasizes to bone** *(Ling P, Clements J, Nelson C, Russell P, Hutmacher D)*

With the aid of a CellSearch system (Veridex) for isolation of disseminated tumour cells, we seek to determine whether Tie-2 expression in the circulating tumour cells better predicts prostate cancer bone metastasis. A 3-D bone metastatic model and orthotopic prostate cancer bone metastatic xenograft model will be used.

**Identification and characterisation of a genetic signature at the 5p15 region associated with prostate cancer across ethnic groups** *(Batra J, Clements J, Spurdle A, Nelson C, Lehman M)*

Fine mapping and functional studies to determine the causal SNP/s and the gene/s at this locus for future risk prediction modelling for prostate cancer. Our approach focuses on the molecular phenotypes of association findings and functional characterization of the plausible causal gene and its variants using various in vitro methods established in our laboratory.

**Simultaneous imaging and drug delivery for prostate cancer theranostics** *(Russell P, Whittaker A, Thurecht K)*

This project focuses on targeting 19F-HP to prostate cancer by attaching ligands that bind prostate specific membrane antigen (PSMA) on the surface of >90% of prostate cancers, thus providing a biomarker that is specific and sensitive for low tumour volume disease.

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

To elucidate the molecular mechanism of the correlation between genetic variations in the PSA gene and other PSA-related kallikrein genes with prostate cancer risk, in the search for more sensitive clinical biomarkers for diagnosis and prognosis.

**To identify a new therapeutic target for the treatment of prostate cancer** *(P Ling, R Quinn, P Russell)*

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), will be defined in malignant transformation of prostate epithelial cells and in the development of metastatic prostate cancer.

**Development of new therapeutic approaches for prostate cancer progression–dissecting the effects of diabetes and obesity in cancer progression** *(Nelson C)*

Androgen deprivation therapy (or castration) provides a temporary remission from prostate cancer lasting about 2-4 years, but inevitably the prostate tumours begin to grow again and there is no curative therapy for castrate resistant prostate cancer. This study will reveal the underpinning mechanism of current advances in advanced prostate cancer clinical trials with the anti-androgen agent Abiraterone.
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)
The current biomarker for prostate cancer, PSA, belongs to a large family of related proteins called KLK enzymes. This project will determine the specific components involved with a view to finding better biomarkers of tumour spread and bone metastasis and designing better treatments for these aspects of the disease.

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.

Targeting hyperinsulinaemia in castrate resistant prostate cancer (Gunter J)
Approximately 25% of Australian men diagnosed with prostate cancer fail primary therapy and commence androgen deprivation therapy. This induces the 'metabolic syndrome' and high serum insulin levels, in turn associated with poor prognosis. We investigate the actions of insulin and anti-diabetic medications on processes that augment metastasis and support treatment resistance.

In prostate cancer there is a great need for improved biomarkers of disease, ideally multiplex markers with some predictive utility. This global collaborative project will develop novel reagents and assays for exosome isolation and quantitation and cross validate these against other capture techniques in different laboratories.

Exosome biomarkers: defining prognosis for drug- and castrate-resistant prostate cancer (Soekmadji C)
Exosomes, nanosize vesicles secreted by cells, are shown to be involved in cell-to-cell communications, and evidence from studies in other types of cancer suggests that the exosomes and microvesicles are regulators which mediate adaptive cancer processes including metastatic progression. Exosome isolation and characterization from advanced prostate cancer patients undergoing systemic therapy could provide an indicator of treatment response and treatment resistance.

The detection of Circulating Tumour Cells (CTCs) in the blood of prostate cancer patients provides a novel, non-invasive approach to evaluating disseminated cancer for clinically informative biomarkers to better understand cancer metastasis, disease progression and monitor treatment response. In order to improve capture and molecular and cellular analyses of CTCs and CTMs in prostate cancer patients, we will compare and refine methodologies via a collaborative approach.

Engineering a high-throughput prostate cancer stem cell niche mimic (Doran M, Chambers K, Clements J, Russell P)
One of the major pitfalls in prostate cancer treatment is recurrent disease and secondary tumours, for which there is a poor survival rate. This research will help us to understand how stem cells contribute to cancer progression and will lead to new therapies that target stem cells and their environment.

APCRC-Q researchers are involved in collaborative teams focused on technology applications and health program evaluation and evidence. Dr Wagholikar has 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.

Fellowships, Awards and Prizes

Batra J
• 3rd Prize Poster Presentation, Inaugural Translational Research Institute Early Career Researcher Poster Symposium, July 2013, Brisbane

Doran M
• Best Poster Award, Translational Science Category, Prostate Cancer World Congress, Aug 2013, Melbourne

Jeet V
• 2nd Prize Oral Presentation, Inaugural Translational Research Institute Early Career Researcher Poster Symposium, July 2013, Brisbane

Sarkar P
• 2nd Prize Poster Presentation, QUT Institute of Health and Biomedical Innovation Postgraduate Student Conference, Nov 2013
Shah E
- Real World Application Prize Oral Presentation, QUT Institute of Health and Biomedical Innovation Postgraduate Student Conference, Nov 2013, Brisbane

Stylianou N
- QUT PhD Scholarship (2014-2015)

Tevz G, Tse B
- People’s Choice Poster Award, Inaugural Translational Research Institute Early Career Researcher Poster Symposium, July 2013
- QUT PhD Scholarship (2014-2015)
- Best Poster Presentation, QUT Institute of Health and Biomedical Innovation Postgraduate Student Conference, Nov 2013

National and International Presentations

Australian-Canadian Prostate Cancer Research Alliance Symposium, 14-17 Aug 2013, Port Douglas:
- Batra J, Invited speaker, ‘Prostate cancer Genome Wide Association Studies: fine-mapping to function’
- Clements J, ‘The KLK degradome and downstream signalling pathways in a prostate stromal microenvironment’
- Doran M, Invited speaker, ‘Stem cell niche recapitulation’
- Gunter J, Invited speaker, ‘Insulin in androgen-deprived prostate cancer cells’
- Herington A, Invited speaker, ‘The Ghrelin Axis–does it have an appetite for prostate cancer?’
- Holzapfel B, Invited speaker, ‘Establishment of a novel xenograft model to study the homing sequence of human prostate cancer cells to engineered human bone’
- Hutmacher D, Invited speaker, ‘in vitro model systems to study mechanisms of bone metastases’
- Lai L, ‘Short tandem repeats: an understudied reservoir of genetic variation for prostate cancer susceptibility’
- Leman M, ‘The prostate cancer transcriptome: what are we missing?’
- Russell P, Invited speaker, ‘Targeted hyperbranched polymers for 19F-MRI theranostics’
- Stephenson S, Invited speaker, ‘EphB4 – an “eph”ective contributor to prostate cancer’
- Tse B, ‘PSMA-targeting magnetic nanoparticles enhance MRI of prostate cancer’

Prostate Cancer World Congress, 6-9 Aug 2013, Melbourne:
- An J, ‘MiRDeep: an integrated application tool for MiRNA identification from RNA sequencing data’
- Batra J, ‘Association and functional analysis of Kallikrein genetic variants with prostate cancer’
- Chambers K, ‘Culturing prostate cells as 3D micro-aggregates for drug testing’
- Gunter J
  - ‘Insulin stimulates fatty acid synthesis and metabolism in androgen deprived human prostate cancer cell lines’
  - ‘Metformin modulates key insulin-induced survival pathways in prostate cancer cells’
- Jeet V, ‘YKL40 as a therapeutic target for the treatment of metastatic prostate cancer’
- Jovanovic L, ‘Use of the CellSearch® platform in enumeration and profiling of circulating tumour cells’
- Lai J, ‘Genome-wide analyses reveal specific functional repetitive DNA that are proximal to prostate cancer risk alleles’
- Ling P, ‘Daxx regulates mitotic progression and prostate cancer predisposition’
- Lisle J, ‘Do proteases regulate EphB4 in prostate cancer?’
- Sadowski M, ‘Evaluation of the fatty acid synthase inhibitor triclosan in prostate cancer cells’
- Sarkar P, ‘Insulin increases migration and invasion in androgen deprived prostate cancer cells’
- Soekmadji C, ‘Androgen influence on prostate cancer exosomes production and content’
- Srilakshmi S, ‘Functional validation of a KLK3 variant, rs17632542, with prostate cancer risk’
- Stephenson S, ‘Nuclear localization of the receptor tyrosine kinase EphB4 in prostate cancer cells’
- Stylianou N, ‘Targeting epithelial-mesenchymal plasticity for improved treatments of advanced prostate cancer’
- Tang K, ‘Inactivation of ATM/ATR DNA damage checkpoint promotes androgen induced chromosomal instability in prostate epithelial cells’
- Tevz G, ‘Androgen responsive non-coding RNA regulates the expression of prostate cancer associated CTBP1 in LNCaP’
• ‘Tse B, ‘Application of PSMA-targeting magnetic nanoparticles into MRI of prostate cancer’
• Thomas P, ‘The expression and function of GHSROS, a long non-coding RNA encoded by the opposite strand of the ghrelin receptor gene, in prostate cancer’
• Vasireddy R, ‘Role of GADD45G in transcriptional regulation of androgen-responsive genes and prostate cancer cell survival’
• Wagholikar A, ‘An evaluation framework for a wider adoption of self-managed interventions during management of advanced prostate cancer’
• Wang C, ‘mCOPA: analysis of heterogeneous features in cancer expression data’
• Williams E, Invited speaker, ‘Impact of tumour cell plasticity on circulating tumour cell capture’

Clements J, Invited speaker
• Winter School, 24 Feb-4 Mar 2013, Tiers Germany
• University of NSW Seminar, 22 May 2013, Sydney
• Wesley Research Institute Advocates Series Talk, 29 May 2013, Brisbane
• International Symposium on Kallikreins, 27 Sept-2 Oct 2013, Toronto Canada
• Australia-China Biomedical Conference, 6-15 Oct 2013, Shanghai China
• 8th General Meeting of Inter Proteolysis Society, 20-24 Oct 2013, Cape Town South Africa
• Australasian Biospecimen Network Association Annual Meeting, 14-15 Nov 2013, Melbourne

Lai J

Lehman M, Invited speaker
• ‘Non-references RNAs in the prostate cancer transcriptome’, Next Generation Sequencing Leaders X-GEN Congress, 18-20 Mar 2013, San Diego USA
• ‘Identification of long non-coding RNAs in prostate cancer by RNA-seq’, Genomics Research Conference, 9-10 May 2013, Boston USA

• ‘Alternative transcripts in prostate cancer: implications for pathway and functional analysis’, Clinical Genomics and Informatics Europe Conference and Expo, 3-5 Dec 2013, Lisbon Portugal

Liberio M
• ‘Eusynstyelamide B: a novel topoisomerase II poison induces DNA damage and a G2 cell cycle arrest in LNCaP cells’, European Cancer Congress, 27 Sept-1 Oct 2013, Amsterdam The Netherlands

Stylianou N
• ‘Investigating the role of the epithelial to mesenchymal plasticity in prostate cancer invasion and metastasis’, 6th International Epithelial-Mesenchymal Transition Meeting, 13-16 Nov 2013, Alicante Spain

Yates P, Invited speaker
• ‘Evaluating complex interventions: the case of the Prostate Cancer Specialist Nurse Program’, Australian and New Zealand Urogenital and Prostate Group Annual Scientific Meeting, 15 July 2013, Gold Coast
• ‘Professional development needs of prostate cancer specialist nurses’, Cancer Nurses Society of Australia 16th Winter Congress, 26 July 2013, Brisbane
The Brain Injury Rehabilitation Unit (BIRU) is Queensland’s tertiary referral centre for acquired brain injury rehabilitation. The service offers specialised interdisciplinary neurological rehabilitation to clients aged in the broad working age group who have acquired brain injury. Along with the Acquired Brain Injury Outreach Service (ABIOS), the BIRU Day Hospital, and the STEPS (Skills to Enable People and Communities) Program, BIRU is encompassed within the Brain Injury Rehabilitation Service, Princess Alexandra Hospital Division of Rehabilitation.

The Hypertonicity Service has a research focus on the hemiplegic shoulder and effects of the hemiplegic arm on gait and balance following an acquired brain injury. Research is conducted on an interdisciplinary model with allied health and university-based researchers. Other research activities include: management of hypertonicity of muscles (spasticity) following neurologic injury; and memory, dysphagia, and self-awareness training following injury.

Members of the BIRU team submitted research reports to Stroke meetings, the Australasian Society for the Study of Brain Impairment (ASSBI) and rehabilitation nursing forums. The Hypertonicity Service presented at national meetings and continued to improve service quality, education and research. The Hypertonicity Service has been successful in obtaining funding for ongoing research.

Dr Ron A Hazelton
Medical Director

Research Activities

**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 Service 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.
The Breast and Endocrine Surgical Unit at Princess Alexandra Hospital provides a comprehensive world-class tertiary surgical service for the management of breast and endocrine surgical conditions within a multidisciplinary setting. Over 275 newly diagnosed breast cancers are treated within the unit each year. Breast cancer is managed in conjunction with the Medical Oncology and Radiation Oncology Units. Surgeons meet on a weekly basis with clinicians from the other disciplines in a combined breast oncologic multidisciplinary 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 respective surgeons also work closely with the Breast Screen Queensland Brisbane South Service so that surgical expertise is provided for screening, assessment and diagnosis of early stage breast cancer to facilitate and integrate with definitive management. The Unit is also involved in collection of data for the Royal Australasian College of Surgeons (RACS) National Breast Cancer Audit of all breast cancers treated at the Princess Alexandra Hospital.

Members of the Breast and Endocrine Surgery 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.

Associate Professor Ian Bennett
Dr Neil Wetzig
Chairman (Alternating)

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.
Established in 2008, the Cancer Nursing Research Group is based in the Division of Cancer Services at the Princess Alexandra Hospital. The 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, and includes Professor Patsy Yates who is a Visiting Fellow with the Cancer Services Southern.

The Cancer Nursing Research Group worked collaboratively with medicine and allied health to produce some great research outcomes in 2013. The team successfully obtained over $4.4 million in research funding in 2013. The highlight of the year was the Group’s first NHMRC grant, a Partnership Project investigating a novel intervention to promote women’s wellness after cancer that will be housed in Princess Alexandra Hospital’s new Clinical Research Facility.

The research outputs of the Cancer Nursing Research Group were pleasing in 2013, with numerous nursing staff presenting at conferences or completing postgraduate studies. Numerous papers were published in 2013 and collectively presented at 31 international and national conferences.

**Associate Professor Alexandra McCarthy**
Chair of Cancer Nursing

**Research Activities**

**Research projects commenced in 2013:**
- Ginger intervention for chemotherapy-induced nausea: feasibility study (Isenring E, McCarthy A, Ferguson M, Davidson W, Vick J)
- Validating a novel, low cost, automated malnutrition screening system as a predictor of nutritional risk in the Oncology Day Care Unit (Abbot J, Isenring E, McCarthy A, McKavanagh D)
- Scoping the prevalence and determinants of cardiotoxicities following cancer treatments (McCarthy A, Clark RA, Atherton J, Worczyk D, Marlton P, Cuff K, Theobald K, Alexander K)
- A pilot study of a multicomponent non-pharmacological intervention to reduce breathlessness and associated symptoms in people with cancer (Yates P, Longbecker D, Stockwell A)
**Research - key to health**

**Fellowships, Awards and Prizes**

**Langbecker D, Yates P, Whiffen R**
- American Academy of Nursing Fellowship
- Best of the Best Oral Presentation Award – Health Services: ‘Findings from a systematic review on cancer care coordinators’, Clinical Oncology Society of Australia’s 40th Annual Scientific Meeting, 12-14 Nov 2013, Adelaide

**Cook PS, McCarthy AL, Yates P**
- ‘Engineering the fitness of older patients for chemotherapy: an exploration of Comprehensive Geriatric Assessment in Practice’, Biopolitics of Science and Medicine Symposium, 29 Nov 2013, Melbourne

**Marx W, Isenring E, Reid K, Sali A, Vitetta L, McKavanagh D, McCarthy AL**

**McCarthy AL**
- ‘Late effects of cancer treatment: what survivors need to know’, National Cancer Survivor’s Day, 1 June 2013, Brisbane
- Invited workshop session, ‘Practical strategies for writing conference abstracts and giving conference presentations’, Haematology Association of Australia Joint Annual Scientific Meeting, 20-23 Oct 2013, Gold Coast

**McCarthy AL, Baumann S, Yates P, Skerman H, Walpole E, Thomson D, Isenring E**
- ‘Nutrition screening and association with outcomes in geriatric oncology patients’, MASCC/ISOO 2013 International Cancer Care Symposium, 27-29 June 2013, Berlin Germany

**National and International Presentations**

**40th Annual Scientific Meeting of the Clinical Oncology Society of Australia, 11-14 Nov 2013, Adelaide:**
- Abbott J, Isenring E, Teleni L, Watson J, McKavanagh D, McCarthy A, ‘Validating a low cost automated malnutrition screening system as a predictor of nutritional risk in the Oncology Day Care Unit’, Nominated for Best of the Best Mini-Oral Presentation and Poster
- Langbecker D, Yates P, Whiffen R, ‘Findings from a systematic review on cancer care coordinators’
- Yates, P, ‘Developing health professional’s capabilities in the provision of psychosexual care’

- Berry R, McCarthy AL, Stone L, Bedford B
  - ‘Implementing a model of oncogeriatric care’, 16th Winter Congress of the Cancer Nurses Society of Australia, 25-27 July 2013, Brisbane

- Cook PS, McCarthy AL, Yates P
  - ‘Implementing a model of oncogeriatric care’ 16th Winter Congress of the Cancer Nurses Society of Australia, 25-27 July 2013, Brisbane
McCarthy AL, Isenring E, Yates P, Skerman H, Walpole E, Thomson D, Davidson W
- ‘Malnutrition and chemotherapy: Implications for nursing practice’, International Council of Nurses 25th Quadrennial Conference, 18–23 May 2013, Melbourne

McCarthy A, Shaban RZ
- ‘Nurse-initiated intervention for docetaxel-induced hand and nail toxicities: case control study’, Visiting Scholar Research Seminar Series, Squina Centre for Infection Control, 9 May 2013, Hong Kong China

Sykes J, Langbecker D, Waters L, Carnew L, Yates P
- ‘Professional development needs of prostate cancer specialist nurses’, Cancer Nurses Society of Australia 16th Winter Congress, 26 July 2013, Brisbane

Thomson D, McCarthy AL, Yates P, Skerman H, Walpole E
- ‘Comparison of ratings of fitness for chemotherapy using Vulnerable Elders Survey-13 versus physicians’ judgments’, Annual meeting of the American Society of Clinical Oncology: Building Bridges to Conquer Cancer. May 31-June 4 2013, Chicago USA

Yates P
- Invited speaker, ‘Survivorship: bringing it all together to deliver care that works’, Flinders Centre for Innovation in Cancer Survivorship Conference, 2 Feb 2013, Adelaide
- Invited speaker, ‘Making a difference to the patient experience in palliative care’, Peter Meese Memorial Lecture, Cabrini-Deakin Centre for Nursing Research, 26 Mar 2013, Melbourne
- Keynote speaker, ‘Current research in palliative care’, 12th Annual Palliative Care Research Conference, 19 Apr 2013, Brisbane
- Invited speaker, ‘How can we deliver good palliative care efficiently?’; 4th International Society of Advance Care Planning and End of Life Care Conference, 9-11 May 2013, Melbourne
- Keynote speaker, ‘Increasing patients’ confidence to manage their own health’, Cancer Survivorship Professional Development Day, 5 June 2013, Melbourne

Zhao I, Yates P
- ‘Evaluating the role of specialist nurses in supporting cancer patients with breathlessness’, Cancer Nurses Society of Australia 16th Winter Congress, 26 July 2013, Brisbane
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.

2013 saw the introduction of Impax CV, a state-wide web-based cardiology imaging product providing clinicians with access to coronary angiography and percutaneous angioplasty studies. The single point-of-access allows clinicians access to cardiac images to assist clinical practice. Data are entered in real time; procedure is reported in real time; report can be accessed state-wide once verified by operator.

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.

Dr Paul Garrahy
Director of Cardiology

Research Activities

Clinical Trials

Alecardio Study (Garrahy P)
Cardiovascular outcomes study to evaluate the potential of new study drug Aleglitazar to reduce cardiovascular risk in patients with a recent Acute Coronary Syndrome (ACS) event and Type 2 Diabetes Mellitus.

Atlantic Study (Garrahy, P)
A 30 day international, randomised, parallel group, double-blind, placebo-controlled Phase IV study to evaluate efficacy and safety of pre-hospital vs in-hospital initiation of ticagrelor therapy in STEMI patients planned for PCI.

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.

Biochemical and hormonal effects of short term right ventricular apical and outflow tract pacing in the normal ventricle (Gould P, Ng K)
This study will form part of Dr Kevin Ng’s PhD.

Compliance charts to guide non-complex small artery stenting: validation by quantitative coronary angiography (Chacko Y, Haladyn JK, Smith D, Lim R)

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.

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.

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

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.
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.

Novel parameters for the guidance of ablation of atrial flutter with a new pressure sensing ablation catheter (Gould P)

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.

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.

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.

Protect-Pace Study - the protection of left ventricular function during right ventricular pacing (Kaye, G)
The Princess Alexandra Hospital 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.

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

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

Report on the evaluation of an automated and centralised process for the identification, triage and referral of suitable patients to cardiac rehabilitation compared to usual clinical practice (Hall, C)

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

TAK-306 (Garrahy, P)
A multicenter, randomized, double-blind, placebo-controlled, Phase 3 study to evaluate cardiovascular outcomes of TAK-875, 50 mg in addition to standard of care in subjects with Type 2 Diabetes and with cardiovascular disease or multiple risk factors for cardiovascular events.

Fellowships, Awards and Prizes

Boyde M, Song S, Peters R, Turner C, Thompson D, Stewart S
- Publication of the Year Award, PAH International Nurses Day Symposium, 14 May 2013, Brisbane

National and International Presentations

Boyde M
- ‘Evaluation of unplanned hospital readmission for Chronic Heart Failure’, 61st Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, 8-11 Aug 2013, Gold Coast
- 8th Conference of the Australian College of Nurse Practitioners, 24-27 Sept 2013, Hobart:
  - ‘Education strategies for chronic disease management’
  - ‘Effective patient education improves patient outcomes’

Chacko Y, Lim R
- ‘Management of spontaneous left main coronary artery dissection: rational or reactionary, courageous conservatism or cavalier convention?’, American College of Cardiology 2013 Scientific Sessions, 9-11 Mar 2013, San Francisco USA

Gould P, Ng K
- ‘Biochemical and hormonal effects of short term right ventricular apical and outflow tract pacing in the normal ventricle of 21 patients’, 6th Asia Pacific Heart Rhythm Society Cardiorhythm 2013, 3-6 Oct 2013, Hong Kong China

Jiggins L, Witt J, Boyde M, Casey V

Lim R
- ‘Restenosis and over-aggressive stent expansion in non-complex PCI without IVUS guidance’, China Interventional Therapeutics/TCT Annual Meeting, 20-23 Mar 2013, Beijing China
The Cardiovascular Imaging Research Group provides clinical and research capability in cardiac imaging and image processing, including multi-modality interests that are unique in Australia and the Asia-Pacific region. The Group has expertise in new echocardiographic imaging technologies such as tissue Doppler, strain and strain rate imaging, myocardial backscatter and contrast echocardiography. Their work is carried out in the research echo/stress area in the main PA hospital and image processing area in the UQ Department of Medicine.

The Group is comprised of researchers, physicians, PhD scholars, visiting scholars, research study nurses, research assistants and students. Group members generated over 130 publications in peer-reviewed journals in the last five years, as well as presentations and invited lectures at major international meetings in Asia, the USA and Europe.

Academic Director Associate Professor Tony Stanton is also a consultant cardiologist with Queensland Health. General Manager Dr Brian Haluska also holds a position as a post-doctoral research fellow. The Group works in close collaboration with Adjunct Professor Tom Marwick, who founded the group in 1998 and is currently the Director of Menzies Research Institute at the University of Tasmania in Hobart, and with Dr Sudhir Wahi, Clinical Director of Echocardiography at PAH.

The Cardiovascular Imaging Research Group’s work focuses on four themes to deal with the complex association of cardiovascular disease with other diseases such as diabetes, hypertension and renal disease as well as to understand how cardiac imaging techniques can influence patient outcomes and cost-effectiveness of care. The group also performs core lab measurement work for several multicentre studies, both national and international and has a close working relationship with the PAH Oncology Department to image patients with cancer who are involved in clinical trials.

Associate Professor Tony Stanton
Academic Director

Research Activities

Detection of subclinical myocardial disease
Using image processing techniques such as tissue Doppler imaging, speckle tracking, strain and strain rate image and myocardial torsion, it is possible to detect early changes in myocardial mechanics both at rest and with stress which may lead to advanced cardiovascular disease. Early intervention and treatment in these ‘at-risk’ patients may prove beneficial in the long term.

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. We believe this is the future of managed care in Australia.

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 the Queensland Health Metro South Health Service and is a strategic collaboration with three leading Queensland university partners: The University of Queensland, Griffith University and the Queensland University of Technology. This unique research centre integrates research, education and practice across the health care continuum to deliver innovative changes in practice within the Health Practitioner disciplines.

This report details the performance and activities of the Centre’s third full year of operation. Once again, this year saw growth in both capacity and activity. In 2013 CFAHR enjoyed continued success in competitive funding with approximately $1.5 million achieved across a range of funding bodies. Building research capacity and evidence for best clinical practice also remained a key agenda for the team, with staff contributing to over 80 collaborative projects locally, nationally and internationally, and supporting over 30 research higher degree students.

In 2013 our researchers maintained a prominent national and international profile with 69 peer reviewed publications plus 20 published abstracts and an extensive array of research presentations, workshops and seminars conducted in six countries.

In 2013 the CFAHR team of five full time research staff and two part time researchers gained a new member, Dr Emmah Doig, who joined as a postdoctoral fellow. The Centre would also like to acknowledge and thank Workforce Development Officer Sue Pager, who left the Centre in late 2013. Sue was integral in helping to establish and develop CFAHR into the team it is today.

Research Activities

Clinical Trials

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.

Impact of nasogastric tubes on swallowing physiology in older, healthy volunteers: a randomised controlled crossover trial (Pryor L, Ward E, Cornwell P, O’Connor S, Finnis M, Chapman M)
This study is exploring the impact of different sized nasogastric tubes on swallow physiology and aspiration in normal elderly.

Do people with severe traumatic brain injury benefit from making errors?: a clinical trial of the efficacy of error-based learning and errorless learning training (Ownsworth T, Fleming J, Tate R, Shum D)
This NHMRC Project Grant commenced in 2012 to compare errorless learning with an error-based metacognitive skills training approach for improving functional skills in patients with traumatic brain injury. The trial protocol was accepted for publication.

This project aims to evaluate the clinical validity of two screening tools (ScreenIT and ScreenIT Carer) for identifying patients and carers who require swallowing, nutritional and/or emotional supportive care intervention during (chemo)radiotherapy for head and neck cancer. Recruitment will commence in 2014.
Can a computerised home therapy program provide an effective and cost-efficient model for delivering intensive swallowing therapy? An RCT of an innovative service model for patients with head and neck cancer undergoing (chemo)radiotherapy (Cartmill B, Ward EC, Hill AJ, Wall LR, PordaST d, Isenring E)

New evidence supports that intensive swallowing therapy completed during (chemo)RT for head and neck cancer treatment can significantly improve swallowing outcomes. This project aims to examine outcomes using a three arm RCT of differing service delivery models of intensive swallowing therapy.

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.

Viability of speech production using a cuffed tracheostomy tube: A crossover comparison study of 2 tracheostomy tube designs (Pryor L, Ward E, Cornwell P, O’Connor S, Chapman M)

This study is exploring the efficacy of two different communication options for patients with a tracheostomy.


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.

Does participation in a remote-access physical activity behavior change intervention with either telephone, printed materials or email follow up support increase physical activity levels among hospital outpatients compared to receiving usual care? (McPhail SM, Marshall A, Kuipers P, Schippers M)

This investigation evaluates the delivery of an intervention intended to help and support patients to live physically active healthy lifestyles despite the presence of one or more current health conditions or physical impairments. Participant recruitment was completed, follow up assessments continued.

Comparison of two education delivery methods of an image interpretation program for radiographers to assist in the rollout of targeted education to the radiography workforce (Neep M, McPhail SM, Steffans T, Owens R)

This randomised trial investigates the comparative effectiveness of intensive and non-intensive education delivery methods for clinical radiographers who work in trauma settings, such as the emergency department. Recruitment and intervention delivery was completed and follow up assessments continued.

Improving older patients’ safety in Western Australian hospitals – reducing falls in rehabilitation units (Hill AM, Waldron N, Etherton-Beer C, McPhail SM, Ingram K, Flicker L, Haines TP)

This multi-centre stepped wedge cluster RCT is investigating the ‘real-world’ rollout of a falls prevention intervention developed and tested by researchers in Queensland (PAH), Victoria and Western Australia. The intervention delivery and outcome assessment continues.

Other Research

The following are a selection of more than 70 active research projects:


This study is collecting the first systematic data on dysphagia following paediatric burn injury.

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.

Speech pathology involvement in outreach services for people with spinal cord injury living in the community: a needs analysis (Ward E, Amsters D, Cornwell P)

This study is examining communication outcomes and perceived service needs of patient with spinal injury living in the community.
This aim of this program of research is to develop and validate an ankle-fracture specific outcome measure suitable for use in assessing patient recovery following an ankle fracture. One manuscript was published and another submitted for publication.

This study is evaluating new models of undergraduate training for developing undergraduate students’ clinical skills.

Examination of a telehealth service for the management of swallowing and communication disorders of patients with head and neck cancer (Burns C, Ward EC, Hill A)
This study is exploring the efficacy of telehealth versus traditional care for rural head and neck cancer patients.

A Phase II trial of a novel intervention for social language use impairments following traumatic brain injury (Finch E, Fleming J, Copley A, Doig E, Cornwell P, Gustafsson L)
This study aims to evaluate the effectiveness of a novel goal-based intervention for enhancing the social language skills of adults with traumatic brain injury. The project was awarded a PA Research Support Scheme Small Project Grant for 2013. Data collection is continuing with the aim of publishing two papers in 2014.

This study aims to investigate the impact of a novel intervention on goal achievement, self-awareness, and participation in meaningful occupation for participants with traumatic brain injury living in the community.

Dr Bena Cartmill, Assoc Prof Pim Kuipers, Assoc Prof Jenny Fleming, Prof Liz Ward, Dr Emma Finch, Rachel Elphinston, Dr Steve McPhail, Dr Emmah Doig

Centres for Health Research 2013 Annual Research Report
Development and validation of a Rapid Assessment Prioritisation and Referral Tool for use in Emergency Departments (ED) and Medical Assessment and Planning Units (MAPU) (McPhail SM, Vivanti A, Fleming J, Finch E, Robinson K)
The aim is to develop and validate a clinically amenable instrument to assist decision making in emergency care settings regarding which patients should be referred to an allied member of the multi-disciplinary team. Data collection was completed for the first development and validation study and a manuscript accepted for publication.

This study involves people undergoing outpatient brain injury rehabilitation. Ethics approval was granted by Metro South Human Research Ethics Committee in October 2013. Data collection is under way and is expected to be ongoing until December 2014.

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 was completed with two papers published and one paper and one book chapter accepted for publication in 2013.

National and International Presentations
Australian and New Zealand Head & Neck Cancer Society Conference, 29-31 Aug 2013, Melbourne:
• Chandler S, Simms V, Robinson R, Barnhart M, Ward L, Wurth E, Smee R, ‘Pretreatment factors associated with dysphagia and enteral nutrition use post radiotherapy (+/- chemotherapy)’
• Nund R, Ward L, Scarinci N, Cartmill B, Kuipers P, Porceddu S ‘Survivors’ experiences of dysphagia-related services following head and neck cancer: implications for clinical practice’
• Wall L, Ward L, Cartmill B, Hill AJ, ‘Physiological changes to the swallowing mechanism following (chemo)radiotherapy for head and neck cancer: a systematic review’
Centres for Health Research 2013 Annual Research Report

Speech Pathology Australia National Conference, 23-26 June 2013, Gold Coast:

- Bennett M, Ward L, Scarinci N, Waite M, ‘An exploration of the perspectives of RACF staff about communication and mealtime management and the role of the speech pathologist in aged care’
- Cornwell P, Simpson L, Ward L, Wadsworth B, ‘Perceptual and acoustic speech and voice changes of patients in the early recovery period post tetraplegic spinal cord injury’
- Finch E, Cornwell P, Nalder E, Ward L, ‘Identifying the factors that determine research engagement by speech pathologists’
- Fu S, Theodoros D, Ward L, ‘Comparison of intensive and standard voice therapy in the management of vocal nodules’
- Turkington L, Farrell A, Ward E, ‘Behind the “froth and bubble”: what is the evidence for carbonation and its impact on swallowing?’

Cartmill B

- ‘Pre-treatment education, using technology to improve services, and dose volume histograms: what’s new in head and neck cancer management in Queensland?’, Head and Neck Cancer Special Interest Group, Oct 2013, Melbourne

Doig E

- 36th Annual Conference of the Australasian Society for the Study of Brain Impairment, 2-4 May 2013, Hobart:
  - ‘Assessments of disorders of consciousness: findings of a review of the literature using systematic methods’

Fleming J

- Invited speaker, ‘Managing forgetfulness: memory retraining and compensatory strategies’, 9th SmartStrokes Australasian Nursing and Allied Health Stroke Conference, 22-23 Aug 2013, Brisbane
- Invited workshop presenter, ‘Cognitive Rehabilitation Workshop’, Occupational Therapy Australia, 13 June 2013, Gold Coast
- Invited presenter, ‘How can we support transitions and participation in neurorehabilitation’, James S McDonnell Foundation Workshop on Advancing the Science of Rehabilitation, 21-22 Feb 2013, Melbourne

Fleming J, Cornwell P, Dicks B, Haines T

- ‘Care and support needs of patients and carers early post-discharge following treatment for non-malignant brain tumour: a qualitative study’, Occupational Therapy Australia 25th National Conference and Exhibition, 24-26 July 2013, Adelaide

Fleming J, Ownsworth T


Hatton A, Kemp JL, Brauer SG, Clark RA, Crossley KM

- ‘Dynamic single-leg balance performance is impaired in individuals with hip chondropathy’, Osteoarthritis Research Society International World Congress, 18-21 Apr 2013, Philadelphia USA
- ‘The effect of hip chondropathy on single-leg balance performance in adults’, 2nd Joint World Congress of the International Society for Posture & Gait Research & Mental Function, 22-26 June 2013, Akita Japan

Maclean J, Ward E, Findlay M, Rees G

- ‘Dysphagia and nutritional management in Australian and New Zealand head and neck cancer centres’, Dysphagia Research Society 21st Annual Meeting, 14-16 Mar 2013, Seattle USA

McPhail S

- Invited speaker, ‘Evaluating clinically meaningful change among free living humans: are you being misled?’, Rotman Research Institute, University of Toronto, 7 June 2013, Toronto Canada
• Invited speaker, Grand Rounds, ‘The practice and economics of physical therapies in a universal healthcare system’, School of Medicine, Division of Physical Therapy, Emory University, 11 June 2013, Atlanta USA

• Invited speaker, ‘The economics of physical activity interventions in a universal healthcare system’, US Centers for Disease Control Division of Nutrition, Physical Activity, and Obesity, 17 June 2013, Atlanta USA

• Invited speaker, ‘Five silent biases threatening to invalidate your survey based research’, US Centers for Disease Control Division of Human Development and Disability, 18 June 2013, Atlanta USA

• Australian Physiotherapy Association Conference, 17-20 Oct 2013, Melbourne:
  – ‘Age did not influence improvement in gait performance among older adults undergoing in-hospital rehabilitation for orthopaedic conditions’
  – ‘Life impacts following ankle fractures: Analysis of patient and clinician experiences for development of an ankle-fracture specific patient reported outcome’
  – ‘Timing of active range of motion commencement following open reduction and internal fixation of distal radius fractures: an observational study’
  – ‘Physical inactivity, health conditions and health-related quality of life in patients with musculoskeletal disorders accessing ambulatory hospital services’

• Australian Association of Gerontology 46th National Conference, 26-29 Nov 2013, Sydney:
  – ‘Agreement between expected and actual recovery in health-related quality-of-life’
  – ‘Gait improvement among older adults with orthopaedic conditions undergoing rehabilitation’
  – ‘Health-profile of older adults with musculoskeletal disorders accessing ambulatory services’


• ‘Patients’ perspectives of dysphagia in the survivorship phase of head and neck cancer’, Inaugural Flinders Centre for Innovation in Cancer Survivorship Conference, 1-3 Feb 2013, Adelaide

• American Speech-Language-Hearing Association Annual Convention, 14-16 Nov 2013, Chicago USA:
  – ‘Application of the ICF to people with dysphagia following head and neck cancer treatment’
  – ‘Dysphagia following head and neck cancer management: the caregivers’ perspective’


• ‘Impact of nasogastric tubes on swallowing physiology in older healthy volunteers: a randomised controlled trial’, Dysphagia Research Society 21st Annual Meeting, 14-16 Mar 2013, Seattle USA

Rumbach A, Ward L, Heaton S, Bassett L, Webster A, Muller M

• ‘Validation of predictive factors of dysphagia risk following thermal burn injury: a prospective cohort study’, Dysphagia Research Society 21st Annual Meeting, 14-16 Mar 2013, Seattle USA

Ward L

• Keynote speaker, ‘Early acute dysphagia following treatment for H&N cancer: Issues for management’, Zurcher Dysphagietagung, 25-26 Jan 2013, Zurich Switzerland

• Invited speaker, ‘Use of human mannequin simulation for undergraduate and workforce speech pathology skills development’, Asia Pacific Education Collaboration in Speech Language Pathology 5th Annual Forum, 31 Oct 2013, Taichung Taiwan

• Keynote speaker, ‘Dysphagia management for H&N Cancer: Clinical challenges and factors influencing future service delivery’, Asia Pacific Conference, 1-3 Nov 2013, Taichung Taiwan

Ward L, Burns C, Theodoros D, Russell T

• ‘Exploring the impact of dysphagia severity on clinical decision making via telerehabilitation’, Dysphagia Research Society 21st Annual Meeting, 14-16 Mar 2013, Seattle USA

• ‘Dysphagia severity and its impact on clinical swallow assessments conducted via telerehabilitation’, American Speech-Language-Hearing Association Annual Convention, 14-16 Nov 2013, Chicago USA
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.

Major research highlights and achievements of the CKDR in 2013:

- publication of over 70 peer-reviewed journal articles
- the HONEYPOT trial, a multi-centre, multi-national randomised controlled clinical trial of topical antibacterial honey versus mupirocin for the prevention of peritoneal dialysis-associated infection designed and conducted by the Centre, demonstrated that antibacterial honey was not superior to standard mupirocin treatment and may have been inferior in patients with diabetes mellitus
- a Queensland Health-funded evaluation of a novel home haemodialysis machine (NxStage) identified a number of potential safety issues which have been referred to the Therapeutic Goods Administration for review
- Ross Francis was appointed to a newly established full-time nephrologist position
- David Mudge led a Caring for Australasians with Renal Insufficiency (CARI) Guidelines Implementation Project for improving peritoneal dialysis-associated infections.

The Centre received a prestigious Group of Eight University Fellowship award to carry out a proteomics study into discovery and validation of biomarkers for chronic kidney disease.

Associate Professor Glenda Gobe
Professor David Johnson
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.

IMPENDIA – 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. The results were published in the Journal of the American Society of Nephrology in 2013.

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 the use of machine cyclers impacts on clinical outcomes in peritoneal dialysis patients. The paper has been submitted for publication.
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 demonstrated that novel, biocompatible peritoneal dialysis solutions resulted in improved dialysis fluid inflow pain and better preserved residual renal function. The effects of these fluids on patient-level outcomes, such as peritonitis, hospitalisation, technique survival and patient survival, remain uncertain.

A systematic review of the effects of icodextrin on patient outcomes (Cho Y, Johnson DW)
This Cochrane review of randomised controlled trials found that icodextrin use resulted in improved peritoneal ultrafiltration and reduced uncontrolled fluid overload episodes, without adversely impacting on residual renal function. Clinical outcomes in peritoneal dialysis patients. The effects of icodextrin on patient-level outcomes, such as peritonitis, hospitalisation, technique survival and patient survival, remain uncertain.

HONEYPOT (Johnson DW, Hawley CM, Isbel NM, Clark C, Coburn A, Vergara L)
This multi-centre, multi-national randomised controlled trial demonstrated that antibacterial honey was not superior to standard mupirocin treatment and may have been inferior in patients with diabetes mellitus. Its routine use in peritoneal dialysis could therefore not be recommended. The results were published in Lancet Infectious Diseases.

Peritoneal dialysis outcomes after temporary haemodialysis transfer for severe peritonitis (Cho Y, Badve S, Johnson DW)
This national registry study found that the outcome of peritoneal dialysis patients who temporarily transferred to haemodialysis because of severe peritonitis and then chose to return to peritoneal dialysis were not dissimilar to those who experienced peritonitis but remained on peritoneal dialysis. The paper has been submitted for publication.

Effect of monitoring Day 2 aminoglycoside levels on peritonitis outcomes in peritoneal dialysis patients (Badve S, Johnson DW)
This single-centre study found that Day 2 gentamicin levels did not predict gentamicin-related harm or efficacy during short-course gentamicin therapy for Gram-negative PD-related peritonitis. The results have been submitted for publication.

Effect of monitoring vancomycin levels on peritonitis outcomes in peritoneal dialysis patients (Stevenson S, Tang W, Cho Y, Mudge D, Hawley C, Badve S, Johnson DW)
This single centre study found that the clinical outcomes of Gram-positive and culture-negative peritonitis episodes were not associated with either the frequency or levels of serum vancomycin measurements in the first week of treatment when vancomycin is dosed according to ISPD Guidelines. The results have been submitted for publication (T2 translation)

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 two different antibiotic regimes for treating peritoneal dialysis-associated peritonitis.

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

Peritoneal Dialysis Outcomes and Practice Patterns Study (PDOPPS) (Johnson D)
This multi-centre, multi-national observational cohort study aims to identify measurable, modifiable practices within Australian (PD) facilities to improve outcomes of PD in Australia.

Trends in body mass index and obesity among incident end-stage kidney disease patients (Badve S, Hawley C, Johnson D)
This national registry study aims to examine the trends in body mass index and the prevalence of obesity in incident end-stage kidney disease patients using data from the Australia and New Zealand Dialysis and Transplant (ANZDATA) Registry.

The role of (E)-4-hydroxy-3-methyl-but-2-enyl pyrophosphate (HMB-PP) in peritoneal dialysis-associated peritonitis (Johnson D)
This combined basic science and national registry study aims to determine the role of the isoprenoid precursor (E)-4-hydroxy-3-methyl-but-2-enyl pyrophosphate (HMB-PP) in the early diagnosis of peritonitis cause and prediction of subsequent treatment response.

The effect of race on peritoneal dialysis outcomes (Johnson D)
This national registry study seeks to examine the independent association of racial origin with peritoneal dialysis outcomes, including peritonitis, technique failure and survival.
KHA-CARI Guidelines Peritoneal Dialysis Implementation Project (Mudge D, Johnson D)
This project aims to determine successful strategies for implementing evidence-based best practices for preventing peritoneal dialysis-associated infections in eight Australian peritoneal dialysis units with a view to improving outcomes in real-world settings.

See Reports section.

Treatment of peritoneal dialysis associated peritonitis (Johnson D)
This systematic review aims to evaluate the benefits and harms of treatments for PD-associated peritonitis.

Haemodialysis

HERO (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 with 53 participants randomised. The results were analysed in 2013 for publication in 2014.

SHARP-ER (Johnson DW, Sudak J)
This study will evaluate a five-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.

C.E. DOSE (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.

ACTIVE (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.

FAVOURRED (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.

BLOCADE (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.

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.

ORAL-D (Strippoli GFM, Campbell K, 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).

Home versus in-centre haemodialysis for end-stage kidney disease (Johnson D)
This systematic review aims to evaluate the benefits and harms of home haemodialysis versus in-centre haemodialysis in individuals with end-stage kidney disease.

The rationale and design of the DIETary intake and death, major cardiovascular events and hospitalization in adults with end stage kidney disease treated with hemodialysis (DIET) study (Johnson D, Campbell K)
This multinational, longitudinal cohort study aims to evaluate mortality, major cardiovascular events, and hospitalization at a minimum of 12 months associated with dietary factors in 7500 adults with end-stage kidney disease treated with hemodialysis.

Reducing the burden of dialysis catheter complications (Johnson D)
This multi-centre study aims to define and standardize reporting of bacteraemia resulting from central venous dialysis catheters in Australia. The network and data used to derive the primary outcome will then be used to shape the development of a large scale intervention project, such as a cluster randomised control trial, to investigate the effect of multi-faceted interventions delivered in dialysis units upon bacteraemia rates.

Home dialysis – the integrated model (Johnson D)
To evaluate clinical outcomes in patients dialyzed with specific home modalities (peritoneal dialysis or home hemodialysis) and those transiting between these two modalities (PD to HHD, HHD to PD).
Short and medium term variability of high sensitivity Troponin T (hs-TnT) in stable dialysis patients: implications for the diagnosis of acute myocardial injury (Fahim M, Johnson D, Campbell S, Hawley C, Tan K)
The aims of this study are to estimate the within- and between-person variation of high sensitivity troponin-T (hs-TnT) measured at weekly and monthly intervals from a cohort of stable dialysis patients and to use these estimates to calculate the percentage change between serial hs-TnT measurements needed to exclude change due to biological and analytic variation alone.

A randomized, double-blind, placebo- controlled, Phase 3 study to assess the efficacy and safety of AMG 416 in the treatment of secondary hyperparathyroidism in subjects with chronic kidney disease on haemodialysis (Hawley C, King A)
The study will evaluate the efficacy of AMG 416 compared with placebo for reducing the serum intact parathyroid hormone level (PTH) by >30% and whether it causes any side effects.

Transplantation

**Biomarkers in Transplantation external qualification 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.

**STAR: Skin Tumours in Allograft Recipients** (Green A, Campbell S, Isbel N, Soyer P, Chambers D, Fawcett J)
Observational study to document the epidemiology of skin cancers and related skin tumours prospectively in 700 organ transplant patients at increased risk of skin cancer.

**Prevalence of the pregnane X gene polymorphism NR1I2 8055T in renal transplant recipients with significant BK viraemia and or BK nephropathy** (Isbel N, Barracough K, O’Shea S, Kennard A)
This study will seek to validate a previous finding that this polymorphism is associated with increased risk of BK viraemia in renal transplant recipients.

**The risks and benefits of antiproliferative agents (azathioprine and mycophenolic acid) in renal transplant recipients** (Burke M, Johnson D, Badve S, Campbell S, Isbel N)
Identifying genetic and pharmacological predictors for non melanoma skin cancer in renal transplant recipients (Burke M, Campbell S, Green A, Soyer P, Isbel N)
This project aims to assess the association between post transplantation non melanoma skin cancer and immunosuppressive drug pharmacokinetic and pharmacogenetic factors.

This study aims to investigate differences in anti-apoptotic BCL-2 family expression in non melanoma skin cancer depending on treatment with different types of immunosuppressant medications.

**HMG CoA reductase inhibitors (statins) for kidney transplant recipients** (Johnson D)
This systematic review aims to evaluate the benefits (reductions in all-cause and cardiovascular mortality, major cardiovascular events, myocardial infarction and stroke, and progression of CKD to requiring dialysis) and harms (muscle or liver dysfunction, withdrawal, cancer) of statins compared to placebo, no treatment, standard care, or another statin in adults with CKD who have a functioning kidney transplant.

**Identification of cardiovascular risk markers in live donors post nephrectomy: longitudinal follow-up. Focus on endothelial dysfunction, inflammation and oxidative stress** (Isbel N, Campbell S, Johnson D)
The aim of this study is to compare the long term effects of nephrectomy on cardiovascular risk markers on live donors.

**Evaluating prediction methods for estimating Tacrolimus, Mycophenolate and Prednisilone exposure following adult kidney transplantation** (Brooks E, Staatz C, Tett S, Isbel N)
The aim of this study is to investigate the performance of the web based Maximum A Posteriori Bayesian forecasting service developed by Limoges University Hospital and a population pharmacokinetic model developed by the University of Queensland School of Pharmacy for estimating area under the concentration-time curves (AUC) of tacrolimus and mycophenolic acid (MPA) in adult renal transplant recipients. The secondary objective is to investigate the relationship between single nucleotide polymorphisms (SNPs) in CYP3A5, a major enzyme responsible for drug metabolism, and AUC.
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 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.


This STAR trial collaborative project with QIMR will investigate phenotypic, genetic, environmental and behavioural risk factors for actinic skin tumours in the immunosuppressed patient population and document the natural history with state of the art photography.

Uremic toxin development in living kidney donors: a longitudinal study (Rossi M, Campbell K, Johnson D, Hawley C, Isbel N)

The aim of this study is to investigate changes in the serum levels of the nephrovascular and cardiovascular toxins, IS and PCS after nephrectomy in living kidney donors, and to determine if these changes are associated with measures of cardiovascular structure and function.

General Nephrology

CORAL (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 results were published in the New England Journal of Medicine in 2013.
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.

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.

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.

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.

LANDMARK 3 (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.

PYR-210: a randomized, double-blind, placebo-controlled, multi-center, phase 2b study to evaluate the safety and efficacy of pyridorin (pyridoxamine dihydrochloride) in patients with nephropathy due to Type 2 Diabetes (Isbel N, Pitkin M)
This industry-sponsored trial is investigating the safety and effectiveness of a new agent on the prevention of nerve damage in patients with diabetes.

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.

PEXIVAS (Hawley C, Isbel N, Harlen K, Reidlinger D, Badve S)
This multi-centre, multi-national randomised controlled trial aims to evaluate the effect of plasma exchange (replacing the patients plasma with synthetic plasma) on clinical outcomes in patients with anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis.

IMPROVE-CKD (Hawley C, Badve S, Reidlinger D, Morrish A)
This multi-centre, multi-national randomised controlled trial aims to evaluate the effect of the 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.

CKD-FIX (Johnson DW, Badve S, Hawley CM)
This multi-centre 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.

TESTING (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.
LOW-SALT CKD (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.

SYNbiotics: Easing Renal failure by improving Gut microbiology (SYNERGY) (Rossi M, Johnson DW, Campbell K)
This randomised crossover trial aims to assess the effect of symbiotics (co-administration of both pre- and probiotics) as a potential treatment targeting damaging uremic toxins Indoxyl Sulfate (IS) and P-cresyl Sulfate (PCS), related to cardiovascular disease (CVD) progression in patients with advanced chronic kidney disease.

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.

20-HETE as a potential mediator of cadmium toxicity: a population-based case-control study of non-occupational exposures in Thailand (Vesey D, Johnson D)
This population-based case-control study aims to investigate a possible relationship between indicators of long-term and recent cadmium exposure.

Interventions for regression of left ventricular hypertrophy in patients with chronic kidney disease: a systematic review and meta-analysis (Badve S, Johnson DW)
This systematic review aims to study the benefits and harms of all interventions used for regression of left ventricular hypertrophy in patients with CKD. Trials with follow up of less than 3 months, less than 10 patients in one or both arms, and involving kidney transplant patients were excluded.

Impact of eGFR reporting on late referral rates and practice patterns for ESKD patients: a multilevel logistic regression analysis using the ANZDATA registry (Johnson D)
This national registry study examines the hypothesis that late referral rates to nephrologists have fallen substantially since the introduction of automatic eGFR reporting in Australia and New Zealand and that an increase in timely referrals was associated with changes in practice patterns at renal replacement therapy initiation.

Hepcidin Project (Mudge D)
The primary aims of this study are to (i) Measure hepcidin before and after administration of IV iron in iron-deficient CKD patients; (ii) Correlate hepcidin with standard measures such as transferrin saturation and ferritin; as well as inflammatory markers such as C-reactive protein (CRP).

Uremic toxins, inflammation and oxidative stress: a cross-sectional study in stage 3-4 chronic kidney disease (Rossi M, Campbell K, Johnson D, Vesey D, Isbel N, Hawley C)
This cross-sectional study aims to investigate the relationship between uremic toxins (indoxyl sulphate and p-cresyl sulphate), inflammation and oxidative stress in patients with moderate-to-severe CKD.

Indoxyl sulphate and p-cresyl sulphate levels and cardiovascular disease associations across the spectrum of chronic kidney disease: an observational study (Rossi M, Campbell K, Johnson D, Vesey D, Isbel N, Hawley C)
This study aims to compare the total and free serum concentrations of IS and PCS, and the free fractions across the CKD spectrum, as well as exploring their associations with cardiovascular disease (CVD) markers.

Different oral doses of BAY 94-8862 in subjects with type 2 diabetes mellitus and the clinical diagnosis of diabetic nephropathy (Isbel N, King A)
The purpose of the research project is to test how effective and safe the study drug BAY 94-8862 is at treating diabetic nephropathy.

The longitudinal study is aimed to explore and understand the relationship between bone health and vascular disease in people with CKD utilising a novel scan technology (pQCT- peripheral Quantitative Computed Tomography).

The association of Global Longitudinal Strain with cardiovascular and all-cause mortality in patients with CKD (Krishnasamy R, Isbel M, Hawley C, Stanton T)
This research project aim to evaluate the prognostic value of novel imaging technique, Global Longitudinal Strain in predicting CV and all cause mortality.
Protease-activated receptor-2 and renal fibrosis and carcinogenesis (D Vesey, D Fairlie, G Gobe, D Johnson)
This project aims to determine the role of a molecule called PAR-2 in mediating progressive kidney scarring and failure using cultured human kidney cells and animal models, and also investigating the role of PAR2 in kidney cancer development.

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.

Expression signatures and interactions of androgen receptor and Caveolin-1 in prostate cancer cell lines (Gobe G, Johnson D)
This study aims to investigate the relative expression profiles, and co-regulation, of Cav-1 and androgen receptor in selected prostate cancer cell lines with differing androgen receptor responsiveness.

Erythropoietin and pathological heart remodelling: are fibronectin and transforming growth factor beta behind erythropoietin resistance and maladaptive cardiac hypertrophy? (Morais C, Vesey D, Gobe G, Johnson D)
The aim of this study is to explore the non-hematopoietic effects of rhEPO on isoproterenol-induced cardiac remodelling in both in vitro and in vivo models with emphasis on hypertrophy and angiogenesis.

Biomarker discovery and validation (Gobe G, Endre Z, Johnson D, Cooper M, Jones A, Hoy W, Coombes J, [Korenkova V, international])
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.

Renal cell carcinoma: differentiating subtypes with biomarkers; understanding resistance to therapies (Morais C, Gobe G, Ng KL, Johnson D, Samaratunga H,
Fellowships, Awards and Prizes

Centre for Kidney Disease Research (CKDR)
- Awarded a prestigious Group of Eight University Fellowship to carry out a proteomics study into biomarkers for chronic kidney disease

Burke M
- Jacquot Research Entry Scholarship

Campbell K
- Young Achiever Award, 30th National Conference, Dietitians Association of Australia, 23-25 May 2013, Canberra

Davis E
- Best Oral Presentation, MBBS Honours Research Awards 2013

Ellis R
- Best Individual Poster Presentation, UQ SBMS Undergraduate Conference

Gobe G, Chris Morais
- Established collaborative research with the Ochsner Clinical Foundation in the USA and were awarded an inaugural UQ-Ochsner Seed Funding Grant for Collaborative Research

Isbel N
- Finalist Kidney Health Australia Clinical Science Award

Johnson D
- Awarded Doctor of Medicine (Research) higher degree by UQ
- Awarded Kidney Health Australia Clinical Science Award
- Awarded US National Kidney Foundation International Distinguished Medal

Korenkova V (Institute of Experimental Medicine, Prague Czech Republic)
- Awarded Go8 Fellowship at the CKDR

McMahon E
- Young Investigator Award – Best Clinical Science from a Developed Country, International Society of Nephrology World Congress of Nephrology, 31 May-4 June 2013, Hong Kong China
• Young Investigator Award Runner Up – Best Clinical Science, Australia & New Zealand Society of Nephrology 49th Annual Scientific Meeting, 9-11 Sept 2013, Brisbane
• Young Investigator Award - Best Clinical Science, Princess Alexandra Hospital 2013 Health Symposium

Mudge D
• Awarded Doctor of Medicine (Research) higher degree by UQ

Rossi M
• Awarded Princess Alexandra Hospital Research Foundation PhD Scholarship
• Best oral presentation, 3rd International Conference on The Science of Nutrition in Medicine and Healthcare Conference, 3-5 May 2013, Sydney
• ANZSN World Congress of Nephrology Travel Grant, June 2013

Vesey D
• Awarded UQ Academic Title Holder Research Grant

National and International Presentations

Burke M, Invited speaker:

Campbell K, Invited speaker:
• ‘BMI and waist circumference in predialysis vs dialysis’, NKF Spring Clinical Meeting, 2 Apr 2013, Florida USA
• ‘Diet for CVD in CKD – can we do better?’, Clinical Insights to CKD.MBD, 16 Mar 2013, Sydney

Campbell K, McMahon E, Manafi M, Campbell A, Johnson D
• ‘Building a dietetic service to meet the needs of chronic kidney disease patients’, Dietitians Association of Australia, May 2013, Canberra

Campbell K, Rossi M, Johnson D, Isbel N
• ‘Uremic toxins and inflammation in chronic kidney disease’, Australian and New Zealand Society of Nephrology, 7-9 Sept 2013, Brisbane

Isbel N, Invited speaker:
• ‘Unconventional intervention—role of anti-oxidants, allopurinol’, ISN World Congress Nephrology, 31 May-4 June 2013, Hong Kong China
• Alexion Complement Symposium, 20-21 July 2013, Singapore Malaysia
  – ‘aHUS Global Registry’
  – ‘Transplant outcomes in aHUS’
• ‘CV disease in the CKD patient’, Nephrology and Transplantation Update Course, 7-8 Sept 2013, Brisbane
• ‘Atypical Haemolytic Uraemic Syndrome’, HAA (HSANZ ANZSBT ASTH) ASM, 20-23 Oct 2013, Gold Coast

Johnson D, Invited speaker:
• ANZ Peritoneal Dialysis Academy, 14-15 Mar 2013, Sydney
  – ‘Peritoneal dialysis in Australia and New Zealand’
  – ‘Infection management in peritoneal dialysis’
• World Congress of Nephrology, 30 May–3 June 2013, Hong Kong China:
  – ‘Honey versus nasal mupirocin prophylaxis in peritoneal dialysis patients – the HONEYPOT trial’
  – ‘Urate trials in chronic kidney disease’
• ‘Elevated uric acid in diabetic kidney disease,’ Australian Diabetes Forum, 13-14 July 2013, Sydney
• ‘What’s new and controversial in peritoneal dialysis,’ Australian and New Zealand Society of Nephrology, 7-9 Sept 2013, Brisbane
• EuroPD, 11-14 Oct 2013, Maastricht Netherlands:
  – ‘Does the use of neutral pH, low glucose degradation product peritoneal dialysis fluids lead to better patient outcomes?’
  – ‘Biocompatibility – an update from the bedside’
  – ‘The balANZ trial’
  – ‘How to set up and run a clinical trial’
• ‘Is there an IDEAL time to start dialysis?’, Amgen Nephrology Educational Symposium, 22-24 Nov 2013, Berlin Germany

McCoy S, Campbell K, Macdonald G, Hickman I
• ‘Perception of metallic taste in end stage liver disease and its relationship with food choices’, Dietitians Association of Australia, May 2013, Canberra

McMahon EJ, Bauer J, Hawley CM, Isbel N, Stowasser M, Johnson DW, Campbell KL
• ‘Effect of sodium restriction on blood pressure, fluid status and proteinuria in CKD patients: results of a randomised crossover trial and 6-month follow-up’, Annual Meeting Australia and New Zealand Society of Nephrology, Sept 2013, Brisbane


• ‘The effect of lowering salt intake on ambulatory blood pressure to reduce cardiovascular risk in chronic kidney disease (Lowsalt CKD Study)’, World Congress of Nephrology, 30 May–3 June 2013, Hong Kong China

McMahon EJ, Campbell KL, Bauer JD

• ‘Salt intake and taste sensitivity in CKD patients’, Nutrition Society of Australia, Dec 2013, Brisbane

Mudge D, Invited speaker:

• ‘Implementation of Best Practice’, ANZ Peritoneal Dialysis Academy, 14-15 Mar 2013, Sydney

• ‘Cardiac imaging for kidney transplantation’, Cardiac Society of Australia and New Zealand 61st Annual Scientific Meeting, 8-11 Aug 2013, Gold Coast

• ‘Clinical impact of eGFR’, Australian Association of Clinical Biochemists 51st Annual Scientific Conference, 16-19 Sept 2013, Gold Coast

Murray E, McCoy S, Campbell K

• ‘Benchmarking prevalence of malnutrition across Queensland Dialysis Units’, Australian and New Zealand Society of Nephrology, 7-9 Sept 2013, Brisbane

Murray E, Rossi M, Isbel N, Campbell K

• Prevalence Of sarcopenic obesity and relationship with inflammatory markers in CKD, Australian and New Zealand Society of Nephrology, 7-9 Sept 2013, Brisbane

Rossi M, Johnson D, Isbel N, Campbell K


• ‘Uremic toxins originated from gut microbiota: are they associated with inflammation and oxidative stress in CKD?’, Nutrition Society of Australia, Dec 2013, Brisbane

Rossi M, Johnson D, Isbel N, Dimeski G, Kaisar O, Campbell, K

• ‘The effect of a nephrectomy on kidney function and uremic toxin accumulation: a longitudinal study’, World Congress of Nephrology, 30 May–3 June 2013, Hong Kong China
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**

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

**Defining the role of MMP-9-expressing macrophages in liver injury in chronic liver disease** *(Powell EE, Clouston AD, Irvine K, Macdonald K, Sweet M)*

**Targeting the Wnt pathway: implications for chronic liver disease** *(Powell EE, Irvine K, Blumenthal A)*

**The role of IL-17 in the ductular reaction and fibrosis in a murine model of chronic liver disease** *(Clouston A, MacDonald K, Miller G, Gallivan C)*
Fellowships, Awards and Prizes

Gadd V
- Young Investigator Award, Australian Liver Association

Irvine K
- Australian Liver Foundation, Pauline Hall Research Fellowship
- The University of Queensland and University of Western Australia, Bilateral Collaborative Research Grant

Zhao E
- The University of Queensland School of Medicine, Research Colloquium

National and International Presentations

Clouston A
- Abdominal Radiology Group of Australia and New Zealand (ARGANZ) Annual Meeting, Mar 2013, Brisbane
- GESQ 17th Annual Coolum Update, May 2013, Coolum
- ILTS Satellite Symposium, Celebrating 50 Years of Liver Transplantation, June 2013, Sydney
- 19th Annual International Congress of International Liver Transplant Society, June 2013, Sydney
- Australian Liver Association Hepatology Masterclass, Aug 2013, Melbourne
- Australian Gastroenterology Week (GESA), Oct 2013, Melbourne
- 8th Asia Pacific International Academy of Pathology Congress, Sept 2013, Busan Korea
- Gastro-enterological Society of Australia, Gut School, Nov 2013, Brisbane

Irvine K
- Australian Gastroenterology Week, Oct 2013, Melbourne

Powell E
- American Association for the Study of Liver Diseases Conference, Nov 2013, Washington USA
- Asian Pacific Association for the Study of Liver, June 2013, Singapore
The UQ Centre for Online Health (COH) had a very successful year across its involvement in research, education and telehealth service provision. The Centre was awarded $2.5 million by the NHMRC to form the Centre of Research Excellence in Telehealth (2013-2018), a collaborative national research effort to promote telehealth uptake, and, assisted by $4.5 million from the Department of Health NBN-Enabled Telehealth Pilots Program, the COH partnered with the Centre for Research for Geriatric Medicine (CRGM) and the Telehealth Pilot Unit to establish the Comprehensive Telehealth Assisted Care (ConTAC) program. The Centre’s ‘Promoting Australian Clinical Telehealth’ online training and educational support program was launched and completed by 110 clinicians in the first year.

The COH has enjoyed a close partnership with natural gas developer QGC Pty Ltd, which funds the Health-e-Regions project. Officially launched in September 2013, this project takes a ‘whole of community’ approach to the establishment of telehealth services in the towns of Dalby, Chinchilla and Miles.

The Centre maintains responsibility for the Queensland Telepaediatric Service at the Royal Children’s Hospital, in its 13th year of operation and one of the largest reported services of its kind worldwide; and the PAH Telehealth Centre, which was established in 2012. In partnership with the CRGM and UniQuest, the COH continued to develop RES-e-CARE, a commercial enterprise delivering specialist care to nursing homes through telehealth.

In November the Centre hosted the 2013 Successes and Failures in Telehealth Conference (SFT-13), comprised of a two-day program with 58 presentations and attended by 205 delegates from 11 countries.

Professor Len Gray
Director

Research Activities

Clinical Trial
Telehealth in residential aged care facilities: a pragmatic randomised control trial [NHMRC Project Grant; Gray LC, Martin-Khan MG, Beattie E, Edirippulige SK, Russell TG, Smith AG, Theodoros DG, Scott I, Hubbard RE]
This study will recruit 880 residents in 10 residential care facilities to examine the effectiveness of telehealth to reduce utilisation of external health services by residents in long-term care including visits to emergency departments, hospital admissions and visits to specialists in ambulatory clinic settings. It will also evaluate effects on quality of care, appropriateness of medication use and costs.

Other Research
Queensland Telepaediatric Service – establishment, coordination and evaluation of teledicine services delivered through Children’s Health Services, Queensland Health (Smith AC, Gray LC)
The Queensland Telepaediatric Service (QTS) 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. The QTS has delivered over 17,000 consultations for 47 specialties since its inception in November 2000, with 2,425 consultations during 2013.

PAH Telehealth Centre – establishment, coordination and evaluation of telemedicine services delivered through Metro South Health Hospital and Health Service, Queensland Health (Smith, AC, Gray LC)
The PAH Telehealth Centre provides a range of health outreach services to patients in rural and remote Queensland using telehealth technology. The Centre hosted 1,375 consultations across 10 specialty areas in 2013, bringing to 1,628 the total number of consultations since the service commenced operating in June 2012.
Investigation of the long-term outcomes of a Mobile Telehealth Screening Service for Aboriginal Children in Cherbourg (Smith AC, Armfield NR, Scuffham P)
To examine the feasibility of a novel health screening service and to obtain scientific evidence to demonstrate feasibility, clinical usefulness and cost-effectiveness. Lessons learned through this experience in Cherbourg are being observed by other Aboriginal and Torres Strait Islander health service providers in Australia.

This training program requires no specialist or costly equipment and can be accessed in the client’s home at their convenience. This study aims to test the efficacy of MitiiTM in improving upper-limb function, motor planning, executive function, visual perception and physical activity capacity and performance.

Fellowships, Awards and Prizes
• Bradford N
• Martin-Khan M
• Smith A
• Surka S

Surka S
• Academic Fellowship Award, Advance Africa.Com Discovery Foundation

Health-e-Regions (Phase 2) – QGC Pty Ltd Social Investment Partnership (Gray LC, Smith AC)
The COH is implementing Health-e-Regions, a telehealth model in Dalby, Chinchilla and Miles, thanks to a partnership worth $1.3 million with natural gas developer QGC Pty Limited. The project will enable better access to specialists for people living in the region through establishment of new telehealth services in hospitals, residential aged care facilities and general practices.

Comprehensive Telehealth Assisted Care (ConTAC) program (Theodoros DG, Smith A, Gray, LC, Armfield, NR, Russell TG Martin-Khan MG)
The ConTAC program is funded by the Department of Health as an NBN Enabled Telehealth Pilot Program in aged and palliative care. ConTAC will offer telehealth services for residential aged care facilities and home care (including assessment tools and videoconsultation on tablet computers) to patients in regions such as Toowoomba, Townsville and Cairns where the NBN rollout is occurring.

The development, delivery, promotion and evaluation of a clinical telehealth educational and training programs for clinicians (Smith AC, Edirippulige S, Armfield, NR, Gray, LC)
Aims to provide high-quality education and training to skill practicing clinicians and future clinicians and facilitate the uptake of clinical telehealth through production, delivery and promotion of education and training material appropriate to the needs of the Australian healthcare workforce using online and face-to-face methods.

Paediatric Intensive Care Unit (PICU) Project (Smith AC, Coulthard M, Armfield, NR, Slater A)
Will research the potential benefits of using telemedicine to help with the care of critically ill children and their families across Queensland. Building on previous successful work with telemedicine for newborns, this project will link five regional Queensland hospitals to the PICU at the Royal Children’s Hospital and allow specialist advice for the state’s sickest children to be provided at a distance.

Raelene Boyle Telehealth Outreach Program: Paediatric Palliative Care (Smith AC)
The program has been established for Paediatric palliative care families and is independently funded by the Sporting Chance Cancer Foundation. Internet-based technology is used to support families caring for a child with cancer and other life threatening conditions by facilitating video telephony calls with the Paediatric Palliative care Service.
National and International Presentations

Armfield, NR
• Invited speaker, ‘Using telemedicine to improve access to specialist care: experiences from Queensland, Australia’, 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC13), July 2013, Osaka Japan
• ‘Supporting regionalised perinatal care by telemedicine - acute care consultation, ward rounds and clinical education outreach’, 18th ISFtHe International Conference, Octr 2013, Takamatsu Japan

Bradford, N
• ‘Palliative care by video consultations at home: a cost effective approach to care’, Successes and Failures in Telehealth 2013 (SFT-13), Nov 2013, Brisbane

Bradford N, Herbert A
• ‘Neurodegenerative case studies’, 12th Annual Palliative Care Research Conference. Apr 2013, Herston

Bradford N, Pedersen L

Bradford N, Young Y
• ‘The potential of mobile technology to support community based nursing’, 25th Quadrennial International Nurses Congress, 20 May 2013, Melbourne

Bradford N, Young Y, Armfield N, Herbert A, Smith A
• ‘Palliative care and telehealth: what is stopping us?’, 12th Australian Palliative Care Conference, 3-6 Sept 2013, Canberra

Caffery L

Edirippulige S
• ‘Investigating the educational and training needs of Australian General Practitioners (GPs) in telehealth: a qualitative study’, Successes and Failures in Telehealth 2013 (SFT-13), Nov 2013, Brisbane

Martin-Kahn, M
• ‘A break-even analysis of delivering a memory clinic by videoconferencing’, Successes and Failures in Telehealth 2013 (SFT-13), Nov 2013, Brisbane

Peel N
• ‘Internet use and seeking pregnancy related information by Iranian women’, Successes and Failures in Telehealth 2013 (SFT-13), Nov 2013, Brisbane

Sanoni P
• ‘The effect of health system policies on the establishment and sustainability of clinical telemedicine services is Queensland’, Successes and Failures in Telehealth 2013 (SFT-13), Nov 2013, Brisbane

Smith AC
• Invited panellist, ‘Telehealth design and principles for Indigenous communities (Indigenous ear health workshop – making a difference)’, The Australian Society of Otolaryngology Head and Neck Surgery Annual Scientific Meeting, Mar 2013, Perth
• Invited speaker, ‘Delivering specialist healthcare to remote communities: telehealth developments in Queensland’, Australian e-Health Research Colloquium, Mar 2013, Brisbane, Australia
• Invited speaker, ‘An introduction to the PA Telehealth Centre; and overview of telehealth services in Queensland – paediatric, adult and geriatric support for regional and remote hospitals’, Medicare Local Greater Metro South Brisbane Telehealth Workshop, Apr 2013, Brisbane
• ‘Retrospective review of Medicare reimbursement for telehealth in Australia’, American Telemedicine Association Conference, ATA Annual International Meeting and Trade Show 2013, 5-8 May 2013, Texas USA
• ‘PAH Telehealth Update’, Princess Alexandra Hospital Clinical Senate Meeting, 6 Nov 2013, Brisbane
• Invited speaker, ‘Introducing specialist telehealth services in residential aged care facilities’, Better Practice 2013, Aged Care Standards and Accreditation Agency, 8 Nov 2013, Brisbane
• ‘Changes in paediatric hospital ENT service utilisation following the implementation of a mobile, indigenous health screening service’, Successes and Failures in Telehealth 2013 (SFT-13), 11-12 Nov 2013, Brisbane

Smith AC, Saunders R
• Invited speaker, ‘Health-e-Regions: introducing telehealth services through a whole of community approach’, Geriatric Medicine Seminar Series, 10 Sept 2013, Brisbane
2013 was a dynamic and positive year for the Centre for Research in Geriatric Medicine (CRGM). The RES-e-CARE initiative transitioned from theory to practice during 2013 with geriatricians engaging with aged care homes to deliver specialist care through telehealth. The Centre continued its close participation within interRAI, the international assessment system for older people, particularly in developing the suite of instruments for use in Acute Care.

Funding was secured to both expand and consolidate the Centre's program of research. A three-year NHMRC Project Grant will investigate whether the risk stratification of older inpatients can be improved by derivation of a Frailty Index from the interRAI Acute Care instrument. Funding was also granted from the Dementia Collaborative Research Centre – Early Detection and Prevention for work focused on the consequences/benefits associated with the timing of a dementia diagnosis.

CRGM published 29 peer-reviewed papers in 2013, compared to 21 in 2012 and 13 in 2011. Conference presentations included a very strong contribution to the four-yearly IAGG World Congress of Gerontology and Geriatrics in Seoul, Korea.

Collaboration is a key component of research, and the exchange of expertise is a strong component of our work. CRGM hosted an undergraduate completing a research subject for a Bachelor of Health Science, a PhD student from Prague undertaking a project on medications in older people, and several visiting Professors. CRGM also sent one staff member as a visiting fellow to Oxford University for the summer of 2013. Our team recognises the importance of nurturing novice researchers and continues to prioritise the provision of support and supervision to RHD students and Advanced Trainees.

**Professor Len Gray**
Director

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

### Research Activities

#### Clinical Trials

**Telehealth in residential aged care facilities: a pragmatic randomised control trial** *(NHMRC Project Grant; Gray LC, Martin-Khan MG, Beattie E, Edirippulige SK, Russell TG, Smith AG, Theodoros DG, Scott I, Hubbard RE)*

This study will recruit 880 residents in 10 residential care facilities to examine the effectiveness of telehealth to reduce utilisation of external health services by residents in long-term care including visits to emergency departments, hospital admissions and visits to specialists in ambulatory clinic settings. It will also evaluate effects on quality of care, appropriateness of medication use and costs.

#### Other Research

**The knowledge translation pathway for early/timely diagnosis of dementia** *(Dementia Collaborative Research Centre – Early Detection and Prevention Grant; Lie D, Martin-Khan MG, Travers C)*

The aim of this project is to identify existing programs that facilitate the timely diagnosis of dementia. The emphasis is on those programs that support, rather than increase the burden of general practitioners. A review of the international literature, including both grey literature and existing service delivery programs will be conducted.
Promoting activity for frail aged in post-acute hospital settings: a randomised controlled trial of accelerometry (NHMRC Project Grant; Gray L, Peel NM, Cameron I, Karunanithi N, Paul S, Crotty M, Kurrle S)
The study is a parallel group randomised controlled trial in geriatric rehabilitation units in three states (QLD, SA, NSW). The primary aim is to test whether activity levels can be increased in the intervention group by the provision of activity data from the accelerometry monitoring to patients and clinicians.

Developing a quality framework for the care of older patients in the Emergency Department (Burkett E, Gray L, Jones R, Martin-Khan MG)
The project aims to develop a set of QIs that are both relevant and feasible in the Australian emergency department setting in three phases: defining best practice, field testing the candidate indicators in eight Australian sites, and expert panel review and decision on the final set of indicators through a consensus process.

National and International Presentations

Gray L
- ‘Can telehealth change the delivery of aged care? - creating the evidence’, ITAC Conference (Information Technology in Aged Care), 1-2 May 2013, Melbourne

Hubbard RE
- ‘Risk conditions, early diagnosis and prevention’, European Commission Conference on Frailty in Older People, 18 Apr 2013, Brussels Belgium
- ‘Frailty in older people: what it’s all about’, Northern & Mid Coast New South Wales Local Health District Aged Care Symposium, 2013, Ballina NSW
- ‘Frailty in older inpatients’, Australia and New Zealand Society of Geriatric Medicine Annual Conference, 2013, Taranaki New Zealand

Australian and New Zealand Society for Geriatric Medicine Annual Scientific Meeting, 16-19 June 2013, Adelaide:
- Chan KW, Peel NM, Hubbard RE, ‘Attitudes of medical students towards ageing - a systematic review’
- Eeles EMP, Peel NM, White S V, Bayer AJ, O’Mahony MS, Bhatt R, Hubbard RE, ‘Frailty and illness severity in relation to delirium in older inpatients’

- Hubbard RE:
  - ‘Gait speed in nursing home residents: a systematic review’
  - ‘Medication changes during the hospital admission’

20th IAGG World Congress of Gerontology and Geriatrics, 23-27 June 2013, Seoul South Korea:
- Eeles EMP, Peel NM, White S V, Bayer AJ, O’Mahony MS, Bhatt R, Hubbard RE, ‘Revisiting the conceptualisation of delirium’
- Freeman S, Spirgiene L, Martin-Khan M, ‘It’s not all downhill from here: examining decline in cognition upon entry to long term care facilities in Ontario, Canada’
- Hopcroft P, Peel NM, Poudel A, Scott IA, Gray LC, Hubbard RE, ‘Prescribing for older people discharged from the acute sector to residential aged care facilities’
- Hubbard RE:
  - ‘Delirium in relation to illness severity and frailty’
  - ‘Prescribing for older people discharged from the acute sector to residential aged care facilities’

- Hubbard RE, Peel NM, Scott IA, Martin JH, Pillans PI, Gray LC, ‘Polypharmacy among older inpatients in Australia’
- Martin-Khan M, Gray L, ‘Quality indicators for care of older people in acute care’
- Martin-Khan M, Travers C, Lie D, ‘Dementia: a population health approach’

Research - key to health
• Navanathan S, Peel NM, Hubbard RE, ‘Gait speed at usual pace as a predictor of outcomes in recipients of a post acute transition care program’

• Peel NM, Hubbard RE, Gray LC, ‘Impact of post-acute transition care for frail older people’

• Schnitker L, Martin-Khan M, Beattie E, Gray L, ‘Adverse outcomes and events in elder ED patients: a systematic review’

• Schnitker L, Martin-Khan M, Burkett E, Beattie E, Gray L, ‘Evaluating quality of care of older cognitively impaired ED patients’

• Slater A, Peel NM, Kuys SS, Hubbard RE, ‘Measuring gait speed in nursing home residents: a systematic review’

iNEAC (InterRAI Network of Excellence in Acute Care), 11-12 Apr 2013, Leuven Belgium:

• Gray LC, Peel NM, Costa AP, Al E, ‘Interrai multinational ED study’

• Hubbard RE, Peel NM, ‘Medication prescribing in older people’

42nd European Society of Clinical Pharmacy Symposium, 16-18 Oct 2013, Prague Czech Republic:

• Ballokova A, Fialova D, Peel NM, Gray LC, Hubbard RE, ‘Use of benzodiazepines and z-drugs in older nursing home residents in Europe and their association with adverse outcomes: results from the EU Shelter Project’

• Ballokova A, Peel NM, Fialova D, Scott IA, Gray LC, Hubbard RE, ‘Use of benzodiazepines and history of falls in older people admitted to acute care settings in Australia’
The Clinical Pharmacology Department sits within the Princess Alexandra Hospital Division of Medicine with responsibility for clinical pharmacology activities. These include quality use of medicine activities, drug utilisation evaluation, therapeutic drug monitoring, drug safety and participation in numerous drug committees.

The Department 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. In collaboration with the PAH Departments of Gastroenterology, Haematology, and Renal Medicine, a novel mass spectrometric method for the measurement of the iron biomarker, hepcidin, has been developed. This is the first method for hepcidin using this technology in Australia. Several clinical studies within Queensland Health and from other health facilities across Australia have utilised this new testing facility. Other research collaborations include general medicine, geriatrics, clinical toxicology, endocrinology, hypertension and pharmacy.

Numerous drug utilisation evaluation studies continue to be conducted in collaboration with the Pharmacy Department at the Princess Alexandra Hospital.

Research Activities

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)

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

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

The role of hepcidin in iron regulation (Hall S, Taylor PI, 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)

National and International Presentations

Taylor P
- ‘Mass spectrometry in the clinical chemistry laboratory—keys to implementing LC-MS/MS in the lab’, Australasian Association of Clinical Biochemist 51st Annual Scientific Conference, 16-19 Sept 2013, Gold Coast
- 13th International Congress of Therapeutic Drug Monitoring and Clinical Toxicology, 22-26 Sept 2013, Salt Lake City USA:
  - ‘An introduction to peptide quantification by HPLC-MS/MS’
  - ‘High resolution mass spectrometry’
The year began with the successful translocation to the Translational Research Institute (TRI) building as part of the UQ School of Medicine, PAH team. The group expanded gaining two valuable academics Associate Professor Helmut Schaider from the Medical University of Graz, Austria, and Associate Professor Rick Sturm from UQ’s Institute for Molecular Biosciences.

The highlights of 2013 include the awards of two NHMRC project grants for a total funding of $1,357,556 for three years (CIA Prow and Soyer), a Cancer Council Queensland grant worth $159,000 for two years (CIA Prow, CIB Soyer) and a UQ Postdoctoral Research Fellowship and an Early Career Research Grant for a total of $346,375 (CIA Raphael). The group also had great success in joint projects, including a Centre for Excellence in Telehealth worth $2.5 million (CIE Soyer) and an NHMRC project grant with UQ Diamantina Institute worth $1.3 million (CID Soyer, CIF Prow). Lastly, LEO Pharma Denmark funded a joint project with researchers from the Diamantina Institute worth $372,460 to investigate variation of mutational patterns in patients with skin cancer.

The team did a fantastic job presenting research at the Annual Meeting of the Australasian Society for Dermatology Research in Sydney and the Global Controversies and Advances in Skin Cancer Meeting in Brisbane. Professor Soyer and Dr Prow also presented at international conferences including the 71st American Academy of Dermatology Meeting in Miami, USA; the Melanoma Summit in Wellington, New Zealand; the 8th World Congress of Melanoma in Hamburg, Germany; and the Austrian Dermatology Society Salzburg Congress in Salzburg, Germany.

Professor H Peter Soyer
Chair, Dermatology Research Centre, The University of Queensland School of Medicine Acting Head, South-West Cluster, Deputy Head UQ School of Medicine
Director, Dermatology Department, Princess Alexandra Hospital

Research Activities

Clinical Trials
Actinic Keratosis Surveillance Feasibility Study (Wheller L, Soyer HP, Neale R, Gilmore S, Saunders N, Lambie D)
To determine the feasibility of using Fotofinder and Reflectance Confocal Microscopy (RCM) to document natural history of AK lesions, and to determine whether genetic, immunological and environmental factors influence the incidence and/or natural history of AKs. Participant visits complete; data analysis in progress.

Immunohistochemistry and other molecular analysis of phenotypically characterised equivocal melanocytic proliferations study (Soyer HP, Gabrielli B, Pavey S, Sturm R, Smithers BM, Lambie D, Douglas N, Banan P)
To validate potential novel bio-markers unique to various phenotypically characterized naevi and stages of melanoma progression using dermoscopy, reflectance confocal microscopy, IHC, microarray, and sequencing data. Ongoing longitudinal study in progress; analysis has started, with a gene signature being identified associated with the transformation of naevus to melanoma.

A study of risk factors for squamous cell skin cancer (Frazer I, Soyer HP, Lambie D)
To test whether virus infection on skin contributes to the risk of developing skin cancer and whether an immune response also contributes. 200 participants will be recruited, biopsies taken of suspected lesions, blood taken for testing of immunity. Biopsy collection is under way; some DNA and RNA analysis performed.

PNI Data Registry (Ongoing project co-ordinated by the Queensland Perineural Research Group; Principal Investigator: Soyer HP)
To establish an up to date registry of management, outcomes and surveillance of patients diagnosed with skin cancer complicated by perineural invasion in Queensland. There is ongoing collaboration with private specialists to enhance patient recruitment, with expanding recruitment to include public PAH patients.
Naevus surveillance using total body photography and dermoscopy (Soyer HP, Smithers BM, Green A)
To use full body photography with individual dermoscopic naevus images to 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. 62 participants recruited for ongoing longitudinal study in progress.

Pigmentation genotypes (MC1R) and phenotypic correlations with dermoscopic naevus types and distribution (Soyer HP, Sturm R, Duffy D, Smithers BM)
To examine the relationship between genes, melanocytic naevi and melanoma risk. To characterise genes that influence the probability of an individual carrying particular naevus subclasses. Currently 570 participants, with recruitment ongoing. Results accepted for publication in 2013 with the Journal of Investigative Dermatology (Sturm R, 2014).

Targeted redox therapy for photoageing prevention and treatment (Prow T, Soyer HP, Roberts M)
To target natural redox therapies to the deeper layers of the skin to treat photoageing using novel means of topical delivery with elongate microparticles. Results from pig and human studies were published in 2013 with Advanced Healthcare Mater and the Journal of Controlled Release (Raphael AP, 2013).

Topical application of minimally invasive, novel microbiopsy device (Prow T, Lin L, Soyer HP)
To test the validity of a novel, minimally invasive microbiopsy device that enables tissue sampling without local anaesthesia for molecular detection of disease and live-cell assays. Micro-sized skin biopsies have been successfully collected containing 1000-3000 skin cells. Results published in F1000 Research in 2013 (Lin L, 2013).

A Phase 3 multicenter study of the safety and efficacy of adalimumab in subjects with moderate to severe Hidradenitis Suppurativa (initiation trial for 1 year) (Soyer HP, McMeniman E, Buchanan L)
To evaluate the safety and efficacy of adalimumab in subjects with moderate to severe hidradenitis suppurativa. Study completed; 5 participants; in the process of being closed.

A Phase 3 open-label study of the safety and efficacy of adalimumab in subjects with moderate to severe Hidradenitis Suppurativa (Soyer HP, McMeniman E, Buchanan L)
To evaluate the safety and efficacy of adalimumab in subjects with moderate to severe hidradenitis suppurativa. Ongoing; currently 7 participants enrolled.

Safety and tolerability of LEO 43204 field therapy in treatment of AK on the forearm
Evaluate safety and tolerability of topical administration of LEO 43204 gel, 0.025%, 0.05% and 0.075% compared to ingenol mebutate gel 0.05% applied on two consecutive days to four separate 25 cm2 treatment areas on the forearms of subjects with Actinic Keratoses. Completed in 2013.

Safety and efficacy of escalating concentration of Ingenol Mebutate in three different vehicle formulations compared to Picato Gel 0.05%
To evaluate the efficacy of different Ingenol Mebutate formulations compared to Picato, applied on two consecutive days to four separate 25 cm2 treatment areas on the forearms of subjects with Actinic Keratoses. All participant visits completed. Study in the process of being closed.

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. MNP have been shown to be capable of successful penetration and delivery of sodium fluorescein to mucosal surfaces in in-vivo vaginal tracts in mice.

Automated image analysis for recognition and detection of skin cancer (Prow T, Hames S, Soyer HP)
To improve the detection of skin cancer by using automated image analysis and reduce the need for invasive biopsy of benign lesions. This project forms part of Sam Hames PhD project; it is currently in progress.

Image-guided skin microbiopsy technology development (Prow T, Soyer HP)
To develop visually guided targeting systems that will enable minimally invasive microbiopsies to be taken from small lesions and from suspicious areas within lesions without the need for conventional biopsies. Research is in progress to combine a hand held microbiopsy device that is integrated with a dermatoscope.
Fellowships, Awards and Prizes

Raphael A
• Young Investigator Presentation, Global Controversies and Advances in Skin Cancer Conference, 21-24 Nov 2013, Brisbane
• Best Early Career Researcher, Australasian Society for Dermatology Research Conference, 17-19 May 2013, Sydney

Li L
• Student Investigator Presentation, Global Controversies and Advances in Skin Cancer Conference, 21-24 Nov 2013, Brisbane

National and International Presentations

Malvehy J, Puig S, Menzies S, Soyer HP
• Great Cases from Spain and Australia Panel Discussion. ‘Reflectance Confocal Microscopy: Current & Future’, 71st American Academy of Dermatology Annual Meeting, 1 Mar 2013, Miami USA

Soyer HP, Invited speaker
• 71st American Academy of Dermatology Annual Meeting, 1 Mar 2013, Miami USA
  • ‘The interaction of the clinician and dermatopathologist in reaching an accurate diagnosis of pigmented lesions: melanoma update’
  • ‘Clinical-dermoscopy-pathology-molecular (FISH/CGH) reconciliation. Advanced Dermoscopy’
  • ‘Basic dermoscopic semiology and histopathologic correlates: fundamentals of dermoscopy’
• ‘Borderline melanocytic lesions: exploring histological diagnostic dilemmas’, Melanoma Summit, 5 Apr 2013 Wellington NZ
• ‘Naevus research in southeast Queensland: an update’, ASPCR-ASDR Meeting, 17 May 2013, Sydney
• In Vivo Confocal Microscopy: Introduction Course for the Diagnosis Skin Tumors, 23 May 2013, Sydney
  • ‘Diagnosis of skin tumours: the status of the art’
  • ‘A window into the future’
• Keynote speaker, ‘Dermatology in Australia - report of an expatriate’, Austrian Dermatology Society Salzburg Congress, 1 June 2013, Salzburg Germany
• Keynote speaker, New Zealand Medical Association General Practice Conference & Medical Exhibition, 21-22 June 2013, Rotorua NZ
  • ‘Case study in dermatology’
  • ‘What’s new in melanoma’
  • ‘Teledermatology’
• Teledermatology for skin cancer: Fact or fiction?, 8th World Congress of Melanoma, 20 July 2013, Hamburg Germany
• ‘Treating non-melanoma skin cancer in 2013’, Rural Doctor Education Seminar, 4 Aug 2013, Gold Coast
The Department of Diabetes and Endocrinology continued to be a productive research unit in 2013. Staff members had 36 publications in peer reviewed journals and representation on national and international committees placing the Department in good standing. Professor Ken Ho strengthened his international reputation in pituitary disease and was appointed President of the International Pituitary Society for 2013.

Research continued around models of care for the management of Type 2 Diabetes. The Brisbane South Complex Diabetes Service was running at Inala, Annerley and was soon to be established at Meadowbrook. This service assists with recruitment of patients into a NHMRC funded randomised trial assessing outcomes of this innovative model of care. Professor McIntyre assessed whether the model can be translated for the management of gestational diabetes and he also played a key international role in defining the diagnostic criteria for gestational diabetes.

An NHMRC partnership grant was awarded to evaluate the large scale implementation of a telehealth program that provides diabetes management support to people 24/7 across three States. This built on a partnership with Professor Oldenburg, University of Melbourne.

The Department had two Endocrine fellows undertaking PhDs with Professor Ho. It was encouraging to see, mainly under the leadership and enthusiasm of Associate Professor Inder, our advanced trainee registrars becoming more involved with research projects leading to presentations at the Endocrine Society of Australia Annual Scientific meeting. With thanks to Jody Sawyer, there has also been increased involvement in pharmaceutical company driven trials in Diabetes, Acromegaly and Cushing's disease.

Associate Professor Anthony Russell
Director

Research Activities

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)

Preliminary results of this multicentre trial in collaboration with investigators from Adelaide and Perth showed no significant benefit of continuous sub-cutaneous hydrocortisone infusion compared to oral replacement. PAH recruited the greatest number of participants. Results will be presented at the US ENDO meeting in June 2014, and a manuscript is in preparation.


This research will evaluate the large scale implementation of a telehealth program that provides diabetes management support to people 24/7. It plans to recruit 1200 participants from Western Australia, Victoria and Queensland.

Assessment of a novel model of care for the management of type 2 diabetes in the community with upskilled GPs (Zhang J, Burridge L, Baxter KA, Donald M, Michele M, Foster M, Hollingworth S, Ware R, Russell A, Jackson C)

A randomised control trial assessing the clinical outcomes and cost-effectiveness of a new model of integrated primary-secondary care for complex diabetes in the community. Nearly 180 patients have so far been recruited with the plan to assess outcomes at 6 and 12 months. The model of care is now being delivered in three centres across Metro South Health.
Growth hormone regulation of the anaerobic energy system
This system generates energy without the need for oxygen and initiates all physical activity. This is a PhD project undertaken by Dr Viral Chikani investigating whether growth hormone (GH) stimulates this energy system. If correct, GH may have a useful role in the elderly frail and in accelerating convalescence after major trauma.

Physiology of brown fat in humans
Brown fat burns energy, unlike white fat which stores it. Our laboratory has shown that brown fat is present in all adult humans contrary to dogma that it disappears after birth. This project, a collaboration with the Department of Radiology, investigates ways of turning on brown fat activity as a novel approach for combating obesity.

A novel liver-targeted testosterone therapy for sarcopaenia
Sarcopaenia (muscle wasting) is a major cause of dependency and physical frailty. The liver is critical to regulating whole body protein economy. We have developed a novel treatment which does not cause peripheral androgen excess, exposing only the liver to low-dose testosterone. This treatment will be evaluated in men with prostate cancer undergoing androgen deprivation therapy and in chronic renal failure.

Other Research
The effect of opioid analgesics on pituitary function (Inder W, Thomas F, Martin J, Jang C)
Preliminary results have shown that 59% of participants have low morning cortisol levels, and of these about half fail a standard stimulation test of their pituitary adrenal axis. Forty-eight percent of the males had testosterone levels in the hypogonadal range. Recruitment is ongoing with 36 participants to date.

Amiodarone-induced thyrotoxicosis (Patel N, Inder W, Sullivan C, Kaye G)
Audit of PAH experience with this condition, in collaboration with the Cardiology Department. Major findings were that a majority of the patients required glucocorticoids to achieve biochemical control, and that thyroidectomy was safe and well tolerated. Published in Heart Lung Circ 2014.

Identification and management of bisphosphonate-related atypical femoral fractures (Ling S-N, Kennedy D, King D, Varghese P, Bell K, Cooke C, Inder W)
Collaboration with Orthopaedics and Geriatrics. Review of all femoral shaft fractures 2010-2013 to identify those atypical fractures associated with bisphosphonate use. Revealed a prevalence of 10% atypical fracture, and increased non-union rate. This review has heightened awareness of atypical femoral fractures among the orthopaedic surgeons. Manuscript in preparation.

Review of the natural history of non-functioning pituitary adenomas (Lenders N, Ho K, Inder W, Prins J, Russell A)

Assessment of SOMS230 in Cushings’ Disease (Inder W)
Novartis SOMS 230

CANVAS R: assessment of renal outcomes with Canigliflozine, a SGLT2 inhibitor (Russell A)
SCALE: Lanreotide in obesity study (Prins J)
TAPAS Study: Long term treatment of Acromegaly pts with Somatuline Autogel (Inder W)

Fellowships, Awards and Prizes
Chikani V
• PA Research Foundation Postgraduate Research Fellowship (2013-2017)

Edwards K, Pritchard N, Vagenas D, Russell AW, Malik RA, Efron N

Russell A, Jackson C
• Finalist in the Awards for Excellence, National Lead Clinicians Group Innovative Implementation of Clinical Guidelines 2013

Thuzar M
• Clinical Research Fellowship 2013, PA Research Support Scheme
National and International Presentations

Chikani V
- ‘Growth hormone action on muscle function: role of the anaerobic energy system’, Endocrine Society of Australia Annual Scientific Meeting, 25-28 Aug 2013, Sydney

Ho K
- ‘New Medical Treatment Guidelines For Acromegaly’, 9th Acromegaly Consensus Conference: Medical Treatment of Acromegaly, 21-23 Mar 2013, Amsterdam The Netherlands
- 3rd International Conference on the Scientific Nutrition in Medicine and Healthcare, 3-5 May 2013, Sydney:
  - ‘The promise of growth hormone: separating fact from fiction’
  - ‘Fighting fat with fat; harnessing the power of brown adipose tissue in humans’
- ‘Brown adipose tissue in humans: metabolic renaissance or myth’, Annual Endocrine Society of Australia Seminar, 5-7 Apr 2013, Twin Waters
- Neurological Society of Australia Continuing Professional Development Workshop, 17-18 May 2013, Newcastle NSW:
  - ‘Prolactinoma upfront surgery versus medication debate’
  - ‘Advances in the medical treatment of acromegaly and Cushing’s Disease’
- 13th Annual Pituitary Congress, ‘Metabolic and bone benefits of adult growth hormone replacement’, 12-14 June 2013, San Francisco USA
- ‘Sex steroid regulation of growth hormone action’, Endocrine Society of Australia Annual Scientific Meeting, 25-28 Aug 2013, Sydney
- ‘Advances in the management of pituitary disease’, Western Australia Endocrine Society Weekend Symposium, Aug 2013, Dunmoor WA

Inder W
- Invited speaker, ‘The adrenal incidentaloma’, Endocrine Society of Australia Annual Seminar weekend, 5-7 Apr 2013, Twin Waters
- ‘Cortisol status in patients with chronic non-malignant pain treated with opioids’, Annual Scientific Meeting of the Endocrine Society of Australia and the Society for Reproductive Biology, 25-28 Aug 2013, Sydney

Research - key to health
McIntyre D
- ‘Diagnosis of GDM – a suggested consensus FIGO / WDF Postgraduate Course’, March 2013, Florence Italy
- 7th International DIP symposium, March 2013, Florence Italy:
  - ‘IADPSG perspective on GDM diagnosis’
  - ‘Do we need a trial of glucose testing in early pregnancy?’
- ‘That glucose is more important than obesity in pregnancy (negative)’, American Diabetes Association, June 2013, Chicago USA
- ‘DAFNE and the Expert Patient’, Northern Territory Chronic Disease Management Conference, Sept 2013, Darwin
- ‘Goldilocks and GDM – too much, too little or “just right”’, Northern Territory Diabetes in Pregnancy Project, Sept 2013, Darwin
- ‘Diagnosis of GDM – can we solve the dispute?’, FIGO/WDF Educational Seminar on New Challenges in Maternal Health, Nov 2013, Shanghai China
- ‘IADPSG perspective on GDM diagnosis’, Asia Pacific Congress on Building Consensus in Maternal Fetal Medicine, Nov 2013, Shanghai China
- ‘Universal thyroid function screening in pregnancy’, Asia Pacific Congress on Building Consensus in Maternal Fetal Medicine, Nov 2013, Shanghai China

Russell A
- Invited speaker, ‘Management of late stage diabetes and hyperglucagonaemia’, Australian Diabetes Society Annual Scientific Meeting, Aug 2013, Sydney

Russell A, Pritchard N, Edwards K, Malik RA, Efron N
- ‘Progression of neuropathy in type 2 diabetes by corneal nerve parameters and established measures’, Neurodiab, 2013, Barcelona Spain

Sullivan C, Penfold L, Flores J, Staib A, Collier J, Scott I
- ‘Tidying up to be NEAT: safely improving NEAT compliance in a tertiary hospital setting’, ACHSM Congress, Aug 2013, Canberra
The University of Queensland Diamantina Institute (UQDI) had another very successful year in 2013 in aspects of discovery, engagement and education. It was well on track for realising its goal of becoming an internationally leading translational research institute. It continued to build its research strengths in the areas of Immunology, Cancer and Genomic Medicine.

The Institute had significant increases in competitive grant, commercial and advancement income in 2013. The total research income increased to $19.9 million (54% greater than 2011), including Australian competitive grant income of $6.1 million (63% greater than 2011) and industry funding of $12.2 million (50% greater than 2011). The Institute was also able to secure substantial philanthropic support with total income exceeding $860,000 (85% greater than 2011).

There was also a significant lift in research output for the Institute with 163 journal publications produced in the year (64% greater than 2011). These included several high impact publications including Nature and Science.

UQDI continues to expand its research higher degree programs with enrolled student numbers reaching 52 (53% greater than 2011).

This year has been a significant milestone for the Institute with the move to the new premises within the new Translational Research Institute (TRI). TRI brings together four institutions on the PAH campus: The University of Queensland, Queensland University of Technology, Mater Research and Queensland Health. The new facility provides the opportunity to develop new research collaborations within Australia and internationally. With strong clinical interactions and world-class facilities, UQDI is now in a commanding position to continue to drive its scientific discoveries into better treatments.

Professor Matthew Brown
Director

Research Activities

During its history, UQDI has made enormous contributions to science and medicine in all of its research disciplines. Publicly this is most recognised through the work of Professor Ian Frazer and the late Dr Jian Zhou in the development of the world's first cervical cancer vaccine, Gardasil.

UQDI maintains a research focus in three overarching programs: Immunology, with a particular emphasis in arthritis and diabetes; Cancer, particularly skin and blood cancers; Genomic Medicine, developing genetic technologies to help disease diagnosis and prediction, as well as determining the basic cause of disease.

Included within the Institute is The University of Queensland Centre for Clinical Genomics (UQCCG). This is amongst the most sophisticated and largest human genomic facilities in the southern hemisphere. The UQCCG enables researchers to undertake cutting-edge genetics and genomic studies.
The Princess Alexandra Hospital Emergency Department is a designated Level 6-Trauma Centre which in 2013 had 59,623 presentations with 15.8% admitted to short stay and 30.2% to the wards. The admission rate is amongst the highest in Australia and demonstrates the high level of clinical acuity. The Department has 22 senior staff specialists who provide clinical expertise to patients and supervision and training to the registrars, senior health officers and interns.

During 2013 the Department began to reap the benefits of the research infrastructure that it has been developing. The key indicators of publications and presentations, funding submissions and grants awarded increased substantially over previous years. This research focus has been facilitated by 1.6 full time nurse researchers and 1 full time research manager supported in part by the Queensland Emergency Medicine Research Fund (QEMRF) and The University of Queensland School of Medicine.

The Department’s external research collaborations during 2013 included the Queensland University of Technology’s Operations Research Division, The University of Melbourne’s Graduate School of Education and the Centre for Accident Research and Road Safety-Queensland (CARRS-Q). In 2013 the ED became a founding member of the Integrated Trauma and Recovery Theme within the Diamantina Health Partners.

In addition to clinical research the Department has demonstrated an increased interest in research education and training of both nurses and doctors. Supporting this endeavour was QEMRF who funded several research projects.

Dr Phillip Kay
Director

Dr James Collier
Co-Director

Dr Andrew Staib
Deputy Director

Dr Michael Sinnott
Research Head
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.

POLAR (Fuentes H)
A multicentre RCT of prophylactic hypothermia in patients with severe traumatic brain injury (TBI). The primary aim of POLAR is to determine whether early and sustained prophylactic hypothermia, compared to standard normothermic care, is associated with an increase of favourable neurological outcomes six months after TBI.

Other Research
Bed Unit Day (Sinnott M, Spencer L)
This collaboration with researchers from QUT is developing a software platform to integrate the hospital databases to identify and understand the data assembled from the four data management systems in operation in PAH. This will allow individual patients to be followed throughout their entire hospital journey. During 2013 the methodology paper was accepted for publication.

Blind Prescribing (Starmer K, Sinnott M)
The project which was published in 2013 determined the preparedness of junior doctors in emergency medicine to prescribe medications of which their knowledge was limited. It identified the prevalence of the practice, and proposed situational and contextual factors pertinent to emergency medicine that are thought to enable this practice.

CALD/ NESB (Mahmoud I, Eley R)
PhD study by QUT student Ibrahim Mahmoud compared ED patients from a non-English speaking background with those from an English speaking background to investigate the subjective reasons of ED use and the satisfaction with ED service in Australian context.
The first paper from the study has been accepted for publication.

DECIMALATE (Sinnott M, Eley R)
This study, a collaboration with the University of Melbourne completed in 2013, demonstrated that comprehension of decimals and leading zeros is a barrier to interpretation of clinical chemistry results among ED staff. Recommendations to remove the potential source of error were made and two papers published.

DORM II (Page C)
This observational study is an extension to the DORM RCT which demonstrated that Droperidol was as effective as Midazolam for sedation of ED patients but with significantly fewer adverse effects. The new study is evaluating a protocol to give Droperidol in a set dose and route.

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 and an intervention to improve documentation is being trialled in the intern training program.

Nurse Rounds (Dymaso K)
This nurse led study aimed to determine whether or not the introduction of a TNR in the PAH Emergency Department improves access to education by offering opportunities for nurses at the patient bedside. The results were very positive and well received by the nursing staff.

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. An audit completed and published in 2013 demonstrated the effectiveness and efficiency of the service.

Trauma and Sepsis (Staib A, Collier J)
Following on from the successful CRASH projects this study funded by NHMRC is evaluating the effect of fresh and aged blood to oxygenation, metabolism and organ function in a clinically relevant trauma/sepsis model.
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.

The Centre had a highly productive year with 12 original scientific papers published and another three in press. Major highlights included:

- the discovery of germline mutations in CUL3 and KLCH3 in several families with Gordon syndrome (a familial form of hypertension and hypokalaemia named after Co-Director Richard Gordon)
- the demonstration that germline mutations in KCNJ5 occur in some patients with primary aldosteronism and may play a pathogenetic role
- the completion in collaboration with James Sharman (Menzies Institute, Hobart) of the successful BP GUIDE study which showed that central blood pressure can be used to guide management of patients with hypertension and leads to safe reduction in the use of medications, and
- the successful trial of a novel diagnostic test (seated saline infusion testing, SSST) for definitively confirming or excluding primary aldosteronism which is much quicker than the current gold standard test (fludrocortisone suppression testing, FST) yet appears to be just as reliable.

If the latter finding is confirmed with larger numbers, SSST may eventually replace FST, with the potential for major savings in time: SSST takes 4 hours as an outpatient whereas FST takes five days in hospital, and savings in expense: approximately $2000-2500 per test, or approximately $100,000 per annum at the Princess Alexandra Hospital alone.

**Professor Michael Stowasser**
Emeritus Professor Richard Gordon
Co-Directors

**Research Activities**

**Clinical Trials**

**Finding better ways to detect curable hypertension (Stowasser M)**
A new diagnostic test, seated saline suppression testing (SSST), for diagnosing primary aldosteronism (PA) is being trialled against the commonly used recumbent approach (RSST). In a pilot study, SSST detected 23 (versus only 7 for RSST) of 24 patients with PA. Recruitment is ongoing.

**BP GUIDE Study: Value of central Blood Pressure for GUIDing managEment of hypertension (Sharman J, Stowasser M)**
This study showed that central BP can be used to guide management of hypertension and results in safe reduction in the use of medications. Results were published in Hypertension.
LOW CBP Study: Targeted LOWering of Central Blood Pressure (CBP) in patients with hypertension (Sharman J, Abhayaratna W, Stowasser M)

Because CBP appears to be a better predictor of prognosis in patients with hypertension than brachial BP, this randomised controlled trial is testing the hypothesis that treatment specifically directed at lowering CBP will have beneficial cardiovascular effects. Recruitment is underway.

Other Research

Genetic basis of primary aldosteronism (PA) as a potentially curable form of hypertension (Stowasser M, O’Shaughnessy KM, Xu S, Ahmed A, Wolley M, Gordon RD)

Adrenal tumor tissue and peripheral blood DNA from patients with PA, the commonest potentially curable and specifically treatable endocrine form of hypertension, is being examined for causative mutations. Somatic (tumor) and germline mutations in KCNJ5 have so far been found.


Several candidate polymorphisms, identified by whole exomic sequencing, were examined in detail for their relevance among pedigrees with this familial form of PA which was first described by our Centre in 1991.

Screening for PA in postmenopausal women (Ahmed A, Stowasser M, Gordon RD)

Because we have shown that pre-menopausal women have higher plasma aldosterone/renin ratios than men, and their ratios increase with oestrogen-containing oral contraceptive treatment, we began to recruit postmenopausal women to undergo ratio measurement before and after commencement of hormone replacement therapy.

Genetics of familial hyperkalaemic hypertension (Gordon syndrome) (Glover M, Wolley M, Gordon R, Stowasser M, O’Shaughnessy K, Xu S, Ahmed A)

Germline mutations in CUL3 and KLCH3 were identified by our UK collaborators (Glover and O’Shaughnessy) in members of several families with this condition, named after our Co-Director Richard Gordon.

Obstructive sleep apnoea (OSA) in patients with PA (Wolley M, Stowasser M, Gordon RD)

Patients with primary aldosteronism were recruited to undergo sleep studies and MRI neck scans before and after surgical or medical treatment of PA in order to address the hypothesis that PA causes OSA. Recruitment is ongoing.

National and International Presentations

Glover M, Wolley M, Xu S, Gordon R, Stowasser M

- ‘Detection of mutations in KLHL3 and CUL3 in families with Familial Hyperkalaemic Hypertension (FHH or Gordon syndrome)’, 95th Annual Meeting of the US Endocrine Society, 15-18 June 2013, San Francisco USA

Gordon RD

- Invited speaker, ‘Primary Aldosteronism, resolved and unresolved questions, and Gordon’s syndrome’, 86th Annual Meeting of the Japan Endocrine Society, 27-28 Apr 2013, Sendai Japan

Stowasser M, Invited speaker:

- 86th Annual Meeting of the Japan Endocrine Society, 27-28 Apr 2013, Sendai Japan
  - ‘Update in primary aldosteronism’
  - ‘Cardiovascular risks of aldosterone and salt’
- ‘Primary aldosteronism’, 95th Annual Meeting of the US Endocrine Society (Meet-the-Professor Session), 15-18 June 2013, San Francisco USA
- ‘Aldosterone-induced cardiovascular damage: the critical role of salt’, 3rd Progress in Primary Aldosteronism Conference, 3-5 July 2013, Munich Germany
- Annual Scientific Meeting of the Endocrine Society of Australia, 25-28 Aug 2014, Sydney
  - ‘The new genetics of primary aldosteronism’
  - ‘Primary aldosteronism: an update’

Xu S

- ‘New germ-line mutations and a rare coding SNP within KCNJ5 in “apparently sporadic” primary aldosteronism: a possible role in pathogenesis’, 35th Scientific Meeting of the High Blood Pressure Research Council of Australia, Dec 2013, Melbourne
The Department of Gastroenterology and Hepatology, situated within the PAH Division of Medicine, provides specialist care for patients with diseases of the gastrointestinal tract and liver through out-patient clinics, in-patient care and endoscopy services. The Department has national and international recognition through specialist interventional gastroenterology procedures, as well as gastroenterology and liver research.

The Department has a strong and growing research track record. Its continued success in collaborative research is demonstrated by the award of a number of grants including from the NHMRC and commercial sources.

This year saw the development of an innovative Brisbane Aseptic Biopsy Device, in collaboration with MTW Endoskopie Manufaktur, Wesel, Germany. This biopsy device consists of forceps that are housed within a sterile sheath, with the distal opening sealed by a membrane, protecting the forceps and working channel from exposure to luminal contents. This innovation will enhance the ability to investigate the communities of microorganisms (microbiome) present in the gastrointestinal mucosa; distinguish this from the luminal microbiome; and investigate its role in GI diseases. Milestones in 2013 – design and manufacture of the Brisbane Aseptic Biopsy Device for obtaining biopsy samples from the mucosa that are not contaminated with luminal contents.

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

Professor Gerald Holtmann
Director

**RESEARCH ACTIVITIES**

**Clinical Trials**

**IBS: Discomfort Elimination Assessment (IDEA) study**
A randomised, double-blinded, placebo-controlled study of Kivia™ 575mg Zyactinase® capsule for the improvement of digestive health parameters in subjects with irritable bowel syndrome with constipation symptoms.

**Progression of Barrett’s Esophagus to Cancer Network Study, NHMRC Centre for Research Excellence. (Barbour AP, Kendall BJ, Hourigan LF)**
This study, which commenced in 2013, brings together the seven major research teams (including Princess Alexandra Hospital) in Australia with expertise in oesophageal neoplasia to form a multi-state, multi-disciplinary Centre for Research Excellence. The aim of the project is to develop evidence-based strategies for reducing the burden of oesophageal neoplasia.

**Other Research**

**Diagnosis and pathophysiology of FGIDS: Bio Bank Study**
Aims: 1) to establish a bio bank to facilitate research into the diagnosis and pathophysiology of functional gastrointestinal disorders, and 2) to develop and validate a diagnostic test for predicting functional from organic GI disease and IBS from lower organic GI diseases using the bio bank. 100 patients recruited in 2013.

**GI Clinic Snapshot – October 2013**
To determine what type of patients present to Gastroenterology clinics. Analysis to be submitted as an abstract to Digestive Diseases Week and AGW 2014.

**Structured Assessment Tools**

**Validation of a “Structured Assessment of GI Symptoms” tool. Completed and in use in routine clinical care.**

**Brisbane Aseptic Biopsy Device and the GI Microbiome**
To investigate the microbiome present in the gastrointestinal mucosa; distinguish this from the luminal microbiome; and investigate its role in GI diseases. Milestones in 2013 – design and manufacture of the Brisbane Aseptic Biopsy Device for obtaining biopsy samples from the mucosa that are not contaminated with luminal contents.
The Clinical Haematology Department sits within the Princess Alexandra Hospital Division of Cancer Services. PAH Cancer Services are the State referral centre for some rare malignancies and provide highly specialised care for cancers including high grade lymphoma and acute leukaemia. This care is supported by the Stem Cell Transplant Program. Laboratory and Clinical Haematology is an integrative academic department and its activities continue to increase particularly in the number of clinical trials and research output. The cancer clinical trials staff numbers continued to increase with 15 data managers and research nurses.

The emphasis of the Haematology Department’s clinical trials program has been shifting towards industry sponsored trials, in particular early phase clinical trials. There were 68 clinical trials / research projects under way in 2013. With the opening of the Translational Research Institute (TRI), the Blood Cancer Research Group / Diamantina Health Partners has been established leading to even closer collaboration and the opportunity for more novel investigational therapies including immunomodulatory agents.

The success in obtaining grants from various sources including NHMRC continued in 2013. An NHMRC funded central venous access device randomised controlled trial commenced to determine if side of line insertion impacts catheter associated bacteraemia. In addition the UQ Diamantina Institute and PAH were awarded a grant by the Australian Cancer Research Foundation for personalised medicine including blood cancers. The next generation sequencing for acute myeloid leukaemia is under way, to be followed by other blood cancers.

Opening of a dedicated myeloma clinic in 2013 is expected to result in improved patient care in terms of the diagnosis, management, clinical research and support of patients with myeloma. A dedicated Amyloid Multi-disciplinary Clinic, one of only two such clinics in Australia, was established at PAH with active research projects. The Australasian Leukaemia and Lymphoma Group (ALLG) Tissue Bank activity continued to increase for both clinical trial and non-clinical trial patients with about 90,000 samples contributed overall.

Associate Professor Devinder Gill Director

RESEARCH ACTIVITIES

Clinical Trials
The Clinical Haematology Department had 68 active clinical trials in haematological diseases in 2013. The trials and projects were in acute and chronic leukaemias, Hodgkin’s lymphoma, low and high grade lymphomas, myeloma, amyloidosis, plasma cell myeloma, myeloproliferative neoplasms, ITP, TTP, etc. About fifty percent of the Department’s trials are industry sponsored and others are under the auspices of the Australasian Leukaemia and Lymphoma Group (ALLG).

Other Research
Genome Wide Sequencing (Marlton P, Gill D, Gonda T, Brown M)
Hodgkin’s and Non-Hodgkin’s Lymphoma (Gandhi M)
Chronic Lymphocytic Leukaemia (Gill D, Saunders N, Mollee P, Mapp S)
Minimal Residual Disease in Acute Myeloid Leukaemia (Marton P)
Amyloidosis (Mollee P)
Fellowships, Awards and Prizes

Taylor E
- Young Investigator Award, PAH Health Symposium

National and International Presentations

Gill D
- XIXth National CME in Haematology and Haematological Oncology, Jan 2013, Mumbai India:
  - Keynote speaker, Plenary Session, ‘Management of DLBCL including relapsed/ refractory cases’
  - Invited speaker:
    - ‘Chronic Lymphocytic Leukemia (CLL)- role of the microenvironment’
    - ‘Chronic Lymphocytic Leukemia (CLL)-novel approaches/agents’

Marlton P
- ‘Chronic Lymphocytic Leukemia (CLL)-eradication of minimal residual disease-has our goal changed?’
- ‘Amyloidosis-diagnosis and management of myeloproliferative neoplasms’
Based at the Princess Alexandra Hospital, Infection Management Services-Southern Queensland provides specialised services in infection management to the Metro South Health Service District, as well as Toowoomba and Ipswich Hospitals.

Over the past 12 months surveillance of significant organisms demonstrated continuing falling rates of MRSA acquisition and its overall burden within the hospital. 2013 saw the refocus of VRE management which achieved much efficiency, in particular, significant savings (approximately $900,000) in the screening of multiresistant organisms alone.

ASIS (Alternate Site Infusion Service) has provided a safe and effective alternative to inpatient care for many disease states and therapies for more than 18 years. In 2013 the Service provided 6,682 bed days, 15% above clinical targets. Staphylococcus aureus remained the most commonly isolated organism. ASIS celebrated reaching 100,000 patient days, since inception, in July 2013 and is well placed to continue making a meaningful difference in patient lives.

VAST (Vascular Access Surveillance Team) provides a multimodal approach to the management of vascular access devices to minimise the risk of healthcare associated bloodstream infections in our patients.

Research undertaken in collaboration with Griffith University includes:

- Recruitment and monitoring of patients for the RSVP trial:
  - replacement after standard use versus prolonged use
  - changing of administration sets at four days or seven days

- Recruitment and monitoring of patients for the SAVE trial:
  - securing Arterial and Venous devices Effectively
  - evaluating four different types of dressings and securement devices for peripheral cannulas
  - four randomisation groups (simple transparent, bordered transparent, sutureless securement device or skin adhesive).

Dr Geoffrey Playford
Director

Research Activities

Clinical Trials

- **BAL8557 versus a caspofungin followed by voriconazole regimen in the treatment of candidaemia and other invasive candida infections**
  - Phase III, double-blind, randomised study.

Safety, tolerability, efficacy and immunogenicity of V212 in recipients of autologous Hematopoietic Cell Transplants (HCTs)

- **Phase III, double-blind, randomized, placebo-controlled, multicenter clinical trial.**

Safety and efficacy of V212 in adult patients with solid tumor or hematologic malignancy

- **Phase III randomized, placebo-controlled, clinical trial.**

MODIFY I

- **Phase III, randomised, double-blind, placebo-controlled, adaptive design study of the efficacy, safety and tolerability of a single infusion of MK-3415 (Human Monoclonal Antibody to Clostridium difficile toxin A), MK-6072 (Human Monoclonal Antibody to Clostridium difficile toxin B), and MK-3415A (Human Monoclonal Antibody to Clostridium difficile toxin A and toxin B) in patients receiving antibiotic therapy for Clostridium difficile infection.**

Efficacy, immunogenicity, and safety study of Clostridium difficile toxoid vaccine in subjects at risk for C difficile Infection

National and International Presentations

Munckhof W

- Invited presentation, ‘Epidemiology and control of community-associated and health-care associated MRSA’, Australasian Society for Infectious Diseases Annual Scientific Meeting, 20-23 Mar 2013, Canberra
The Princess Alexandra Hospital Intensive Care Unit demonstrated another successful year in critical care research with a number of high quality publications and success in grant funding awards. Multidisciplinary research continues to be a feature in the Unit and includes collaboration with medical, nursing and allied health teams. The level of productivity and success is only possible because of the enthusiasm and dedication of the staff in the Unit.

The strengths of the ICU’s 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.

The Princess Alexandra Hospital is a leader in sepsis research driving the international, multi-centre ADRENAL trial, which is now operational in 45 sites, and the recent publication of the first randomised control trial of statins in severe sepsis. The Intensive Care Unit also secured funding for the Genomics study which will look at the host and pathogen profile in septic shock.

There was ongoing involvement with the Australia and New Zealand Intensive Care Society (ANZIC) Clinical Trials Group (CTG). This was evident by continuing involvement in the POLAR-RCT and the TRANSFUSE study. The Unit contributes to a number of large scale international pharmaceutical trials. The Unit also facilitates a number of local laboratory and clinical projects for registrars to be involved with and meet their training requirements.

In collaboration with UQ and support from an ARC grant, investigation into Human Factors influencing intensive care performance is under way. The group is looking forward to another productive year.
Research Activities

Clinical Trials

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 in critically ill patients. The study aims to enrol 4,000 patients commencing at PAH ICU in early 2014. 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. Data collection is complete, with data analysis under way and a publication being written.

ADRENAL – a randomized blinded placebo controlled trial of hydrocortisone in critically ill patients with septic shock (Venkatesh B)
Professor Venkatesh is the Chief Investigator of this NHMRC funded international multicentre trial. This study will include 3,800 patients who have septic shock. They will be randomized to receive either hydrocortisone 200 mg or placebo daily for 7 days as a continuous intravenous infusion while in Intensive Care.

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 will investigate whether early cooling of patients with severe traumatic brain injury is associated with better outcomes. The study involves collaboration between the Intensive Care Unit, the Emergency Department and Queensland Ambulance Service. ANZICS CTG.

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

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.

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 (Aitken L)
This multi-centre prospective cohort study (Netherlands lead site) aimed to develop and validate an early prediction model (E-Predeliric) for delirium in ICU.

A multicenter, open-label, randomized study to compare the safety and efficacy of intravenous ceftolozane/tazobactam with that of piperacillin/tazobactam in ventilator associated pneumonia (Venkatesh B, Purcell R)
This study is designed to compare the clinical cure rates of ceftolozane/tazobactam in comparison to piperacillin/tazobactam, a well-characterized β-lactam combination antibiotic, in adult patients with VAP. The study ran for around 3 months and was abandoned for the next phase due to low recruitment.
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. This study is complete, with one paper published and another under review.

**Exercise in ICU (Nickels M, Watson L, McPhail S, Aitken L, Walshaw J)**
This is a physiotherapy-led trial investigating early exercise in ICU patients. The physiotherapy investigators at the PAH are Marc Nickels and Lisa Watson. A retrospective activity analysis and staff survey have been completed.

**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. Data collection is complete, with data analysis under way and a publication being written.

**HECTIC (Aitken L, Abbey J)**
Health and economic outcomes of critical trauma intensive care patients. This study has been completed, with one paper being published and more currently being written.

**The rural and remote critical care family’s experience during an inter-hospital transfer (Mackie B, Mitchell M, Kellett U, Tonge A)**
This study aims to better understand rural and remote critical care families’ needs as revealed through their experiences during inter-hospital transfer. Such understanding will inform the development of a model of care for family members during inter-hospital transfer of critically ill patients from rural and remote Queensland. Study is complete and accepted for publication.

**Interruptions in critical care (Venkatesh B, Aitken L)**
This project aims to gain a greater understanding of the incidence and circumstances of requests or demands on our attention while we work, the effect this has on our practice, and how we see fit to respond to them. We are in the final stages of recruiting and have completed the pilot observational phase. Development of Phase Two is currently under way based upon pilot work.

**How well prepared is the PAH DRS to support the NCCTRC & RDH in times of crisis?: a critical review (Mitchell M)**
This project examines and objectively assesses the PAH DRS's systems and processes designed to meet the needs of the NCCTRC/RDH in a crisis. The ability of PAH staff to adequately step into their respective RDH unit will be the focus of the evaluation.

### Fellowships, Awards and Prizes

**Aitken L**
- Awarded Fellowship of the American Academy of Nursing

**Dean J, Mitchell M, Debattista J, Wollin J, Stewart D**

**Venkatesh V**
- Elected as President-elect, College of Intensive Care Medicine of Australia and New Zealand

### National and International Presentations

**Aitken L**
- 11th World Congress on Intensive Care, Durban South Africa
  - ‘Optimising sedation practices’
  - ‘Critical care nursing in Australia, Invited panel discussion’
- 3rd ICU Recovery workshop, Choosing a research design, Turku Finland
- 10th Annual ACCCN Victorian Symposium on Critical Care Nursing, Melbourne:
  - ‘Improving recovery post ICU’
  - ‘Critical care nursing: Where have we come from? Where are we going?’
- ‘Predicting physical function and mental health in trauma intensive care patients 2 years after hospitalization’, International Symposium on Intensive Care & Emergency Medicine, Brussels Belgium

**Kruger P**
- ‘Possible mechanisms of action for statins in infection’, 23rd European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), Berlin Germany
Mitchell M
- ‘From infant to adult - why sleep, pain, sedation and delirium are important to consider in our patients’, 3rd ICU Recovery workshop, Turku Finland
- ‘Long term Cognitive Impairment and Delirium in an Australian Intensive Care (LOGIC)’, World Congress on Intensive and Critical Care, Durban South Africa
- ‘People with ACS lack knowledge on how to self manage episodes of angina using SLN: a review of the literature’, Australasian Cardiovascular Nursing College (ACNC) 7th Annual Conference, Auckland NZ
- ‘Tailoring Best Practice Guidelines for OSCEs and simulations in nursing and midwifery programs across diverse settings: a multi-site Australian study’, Clinical Skills Conference, Prato Italy
- Institute of Continuing Education, Brisbane
  - ‘ICU diaries’
  - ‘Strategies to Assist Implementation of Nursing Research in Practice’
  - ‘Moderator of ethical panel discussion case study’
- ‘The effectiveness of web-enhanced self-directed learning in information literacy of nursing students in Taiwan’, 2nd NUS-NUH & 18th Singapore and Malaysia International Nursing Conference, Singapore

Venkatesh B
- ADRENAL trial update, Spring and Autumn Annual Clinical Trials Group Meetings
- ‘Latest from the Journals’, Annual Scientific Meeting Australia and New Zealand Intensive Care Society, Melbourne
- ‘Clinical examination in the modern era, what should we be teaching?’, College of Intensive Care Medicine, Wellington NZ
- Update Course, Australia and New Zealand College of Intensive Care Medicine Intensive Care, Wellington NZ
- International Congress of Intensive Care and Emergency Medicine, Brussels Belgium:
  - ‘Steroids in Sepsis’
  - ‘Vitamin D in critical illness’
  - ‘Coagulase negative Staphylococcal bacteremia’
  - ‘Optimal conduct of ward rounds in critical care’
  - ‘Pharmaconutrition’
  - Poster adjudication
- Regional meeting College of Intensive Care Medicine:
  - ‘Calibration of examiners to reduce variability’
  - ‘Hormonal responses in critical illness’
  - ‘Strong ion difference- a new approach to acid-base’
- World Congress of Intensive Care Medicine, Durban South Africa:
  - ‘Vitamin D in critical illness’
  - ‘Statins in sepsis’
  - ‘Adrenocortical function in critical illness’
  - Poster adjudication
- 10th Annual Critical Care Symposium, Manchester UK:
  - ‘Ketones as a neuroprotective agent’
  - ‘Design of placebos in clinical trials’
The PAH Department of Internal Medicine and Clinical Epidemiology continued to be active in a number of research domains in 2013 including:

- deprescribing initiatives in older patients
- ascertaining quality of in-hospital care factors contributing to unplanned readmissions
- methods for improving clinical guideline utility and credibility
- identifying common programmatic elements behind successful integration of primary-secondary care for specific patient populations
- methods for systemically implementing advance care planning into acute hospitals, and
- assessing the effects of volunteers on health status of older patients admitted to general medical wards.

The Department’s Director, Professor Ian Scott, is a consultant physician in internal medicine, an Associate Professor of Medicine at the University of Queensland, an Adjunct Associate Professor of Medicine in Epidemiology and Preventive Medicine at Monash University, and a Research Associate with the Centre for Research Excellence in Patient Safety in Melbourne. He is a member of the Quality Expert Advisory Group of the Royal Australasian College of Physicians (RACP) and the Clinical Standards Advisory Committee of the Australian Commission on Quality and Safety in Health Care. He has led large-scale multi-site quality improvement programs targeting in-hospital and post-hospital care of patients with various diseases. He has research and teaching interests in health services evaluation, evidence-based medicine, quality improvement and knowledge transfer. He is a co-investigator in several NHMRC funded programs.

Associate Professor Ian Scott  
Director of Internal Medicine and Clinical Epidemiology

Professor Jennifer Martin  
General Physician, PAH Division of Medicine  
Head, Southern Clinical School, The University of Queensland

Research Activities

Developing, validating and implementing a deprescribing framework for minimising inappropriate polypharmacy in older patients admitted to hospitals or residential aged care populations  
(Scott IA, Gray LC, Hubbard R, Martin J, Pillans P, Punt A, Ballokova A, Peel NM)

Literature review aimed at identifying enablers and barriers to deprescribing that impact on clinician decision-making  
(Anderson K, Scott IA, Freeman C, Stowasser D)

Investigating unplanned readmissions to general medicine service aimed at identifying potentially remediable quality of care factors that contributed to preventable readmissions  
(Scott IA, Shohag H, Ahmed M)

Literature reviews aimed at devising strategies for improving guideline utility and trustworthiness and testing such strategies in the formulation of 2015 revised guidelines for acute coronary syndrome  
(Scott IA, Guyatt GH)

Literature review aimed at identifying programmatic factors that enable successful integration of individual patient care across the primary-secondary care interface for populations with specific health conditions  
(Burridge L, Zhang J, Donald M, Mitchell G, Scott IA, Dart J, Jackson C)

Literature review and development of a framework for systemically implementing advance care planning into all acute public hospitals and residential aged care facilities (RACF) in Queensland following pilot testing in selected hospitals and RACFs  
(Scott IA, Mitchell GK, Reymond EJ, Daly MP, Rowland J, Whiting E)
Action research targeting strategies for improving National Emergency Access Target (NEAT) performance in an initially low-NEAT performing tertiary hospital (Sullivan C, Flores J, Staib A, Scanlon A)

Literature review of preoperative evaluation and management of cardiac risk in patients undergoing elective non-cardiac surgery (Scott IA, Shohag HA, Kam PCA, Jelinek MV, Khadem G)

Controlled trial of effects of volunteers on the health of older in-patients admitted to a general medicine service (Scott IA, Slater K, Downey M)

National and International Presentations

Scott I, Invited speaker:
- ‘Advance care planning as a means to reducing preventable readmissions’, Discharge Planning and Service Integration Conference, Feb 2013, Sydney
- ‘Role of evidence and consensus in clinical guidelines and standards’, SMC Conference, Apr 2013, Sydney
- ‘Only clinician leadership can save healthcare systems from insolvency’, Royal Australasian College of Physicians Congress, 27 May 2013, Perth WA
- ‘Improving performance by changing culture and using data’, Timely Access to Emergency Department Conference, 30 May 2013, Sydney
- Visiting Professorship to Flinders Medical Centre, 11–14 June 2013, Adelaide:
  - ‘Turning our healthcare institutions into rapid learning healthcare organizations’
  - ‘Using data and evidence to improve performance within a general medicine unit’ ‘Assessment and outcomes of patients presenting to hospital with acute chest pain of possible cardiac origin’
  - ‘Tips for a winning performance at the Royal Australasian College of Physicians exams’
- ‘Developing strong governance structures’, Applying Clinical Governance to the National Standards Conference, 30 July 2013, Sydney
- Internal Medicine Society of Australia and New Zealand Annual Scientific Meeting, 13-15 Sept 2013, Newcastle
  - ‘Four hour targets – experience at a major Brisbane tertiary hospital’
  - ‘Evidence-based care – how can we accelerate the diffusion of new evidence?’
- ‘How can we use HSMR in ways that don’t kill us or our patients?’, NSW Clinical Excellence Commission Webinar, 30 Sept 2013, Sydney
- ‘Discerning high value interventions in the surgical management of obstructive sleep apnoea’, Australian Sleep Association (Qld) Annual Scientific Meeting, 19 Oct 2013, Brisbane
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 the mechanisms that promote airway inflammation in asthma and other chronic lung diseases, with particular expertise in immune function and how this is important for protection against respiratory infections and allergies.

Current projects are examining virus infection susceptibility in asthma, the role of plasmacytoid dendritic cells in lung host defence, immune function in Indigenous children with bronchiectasis, influenza vaccination in COPD, bacterial infection and protracted bronchitis in children, the pathogenesis of severe asthma and characterisation of allergies to sub-tropical grasses.

2013 was a highly productive year for all concerned, with success in attracting NHMRC research funding, and multiple publications in peer reviewed journals. Key achievements included:

- defining immune responses to the common cold virus, and why this is abnormal in asthma
- better understanding of the effectiveness or otherwise of influenza vaccination in COPD, and
- outlining how much sub-tropical grass pollens contribute to the burden of allergic disease.

Professor John Upham
Research Director
It is recognised that many of those affected by mental health problems are confronted with multiple challenges including inequitable access to clinical services, reduced life expectancy due to the impact of physical health disorders, and the consequences of social factors such as increased rates of unemployment. Metro South Addiction and Mental Health Services (MSAMHS) seeks to promote improved access to services for those confronted with the impact of addictions and mental illness while providing greater support for families and carers. We attempt to find new ways of improving people’s life chances and breaking down barriers by emphasising the role of high quality research and incorporating research into policy and practice.

The MSAMHS has helped to establish a research group to investigate the impact of unemployment for people with mental health problems and supported more services to enable people to achieve their potential. Life styles issues such as smoking cessation and prevention of weight gain have been addressed to ensure patients obtain prompt treatment and support. Treatment options and service delivery models across the spectrum of mental health disorders have been established and are being evaluated.

The Service’s new clinical transformation program and its clinical redesign work have provided increased treatment options and improved access to translational research options. Our clinicians and researchers in partnership with other health care providers and academic institutions have a commitment to evaluation of our services and ensuring best practice care is provided to those who experience the impact of addictions and/or mental health disorders.

It has been an exciting year for the clinicians of the MSAMHS. This annual research report describes and celebrates the work of those clinicians.

Professor David Crompton OAM
Executive Director

Associate Professor Gail Robinson
Director of Medical Services

Professor Steve Kisely
Visiting Specialist

Research Activities

Clinical Trials
A randomized, double-blind, placebo-controlled, parallel, 26-week, Phase 3 study of 2 doses of an alpha-7 nicotinic acetylcholine receptor agonist (EVP-6124) or placebo as an adjunctive pro-cognitive treatment in schizophrenia subjects on chronic stable atypical antipsychotic therapy (Robinson G, Motamarri B, Varghese J, Randhawa J)

Currently there are no approved or otherwise readily available pharmacological agents to adequately treat cognitive impairments that frequently affect patients with chronic schizophrenia. There are approximately 222 sites approved globally. MSAMHS was the first of five sites in Australia to be initiated.

Other Research
Clozapine dispensing and rates of adverse drug reactions in Australia (Siskind, Hollingworth, Winckel, Wheeler)

Cost effectiveness of a system change intervention for smoking cessation in drug and alcohol treatment centres: Tackling Nicotine Together (Bonevski, Hipper)

A map to better care: applying the principles of advanced directives and motivational interview to discharge planning for psychiatric patients (Kisely, Robinson, Wyder, Siskind, Crompton)

New horizons in first episode psychosis: An investigation of auto antibodies in first episode psychosis study (Scott, Heatherill, Motamarri, Dark, Robinson)
Clozapine for treatment refractory schizophrenia - a systematic review and meta-analysis (Siskind, Kisely, McCarthy, Goldschlager)

Mental health implications for older adults after natural disasters – a systematic review (Parker, Lie, Siskind, Martin-Khan, Raphael, Crompton, Kisely)

Estimating the prevalence and cost of psychotropic medication use attributable to appropriate psychiatric indications (Harris, Diminic, Carstensen, Hollingworth, Siskind, Scheurer, Burgess)

Patient factors that drive the cost of mental health services: a systematic review (Harris, Legge, Diminic, Carstensen, McKeon, Siskind, Burgess, Stewart, Whiteford, Stockings)

A MAP to better care: applying the principles of advanced directives and motivational interviewing to discharge planning for psychiatric patients (Kisely, Robinson, Wyder, Crompton, Siskind, Lau)

Fellowships, Awards and Prizes

Siskind D
- International Young Psychiatrist Award 2013 – Indian Psychiatric Society

National and International Presentations

Kisley S
- ‘Mortalité excessive en santé mentale et application de guides de bonne pratique par les médecins généralistes’, Journée annuelle de la recherche du Département de psychiatrie de l’Université de Montréal, 29 Jan 2013, Canada

Siskind D
- The Mental Health Services Conference 20-23 Aug 2013, Melbourne:
  - ‘Personalised support delivered by support workers for people with severe and persistent mental illness: a systematic review of patient outcomes’
  - ‘Recovery-enhancing service delivery in the mental health community managed non government sector’
- 8th Health Services and Policy Research Conference, 2-4 Dec 2013, Wellington NZ:
  - ‘System-level intersectoral linkages between the mental health and non-clinical support sectors: a systematic, narrative review’
  - ‘A retrospective quasi-experimental study of a transitional housing program for patients with severe and persistent mental illness’
The Princess Alexandra Hospital Nutrition and Dietetics Department continues to be recognised as an international centre for excellence in Nutrition and Dietetics Research and Practice.

The Department’s Clinical Research Program has a research strategy that focuses on three main themes:

- Metabolism and Obesity - Group Head Dr Ingrid Hickman,
- Kidney and Cardiovascular Disease - Group Head Dr Katrina Campbell, and
- Oncology and Malnutrition - Group Head Dr Maree Ferguson, and previously Dr Liz Isenring.

The Department published 54 manuscripts, participated in over 30 international and national conference presentations and received more than $200,000 in competitive research funds in 2013.

Considerable effort has been invested to increase research capacity within the Department with significant increases in engagement of clinical staff with research activity. A research competency framework is in place to guide staff in developing their research skills. 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. Three dietitians are enrolled in research higher degrees and supervised within the Department.

Azmat Ali, Angela Vivanti and Annabelle Stack served as acting Director in 2013 while Maree Ferguson was on secondment. Annabelle, who continued as acting Director into 2014 is an Advanced Accrediting Practising Dietitian and a Credentialled Diabetes Educator, passionate about integrating research into clinical practice and an active member of the statewide Diabetes Clinical network. Annabelle has represented dietetics on national working groups including inpatient management of diabetes and disaster management planning.

Maree Ferguson
Director
Annabelle Stack
A/Director
Ingrid Hickman
Research Director

Research Activities

Clinical Trials

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, hyperinsulinenia and acute exercise, in order to understand the mechanisms of disease progression.


Weight gain in liver transplant recipients is common and most rapid in the first six 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 aldostronism trial (Campbell K, Pimenta E, Stowasser M)
This is a prospective observational study is investigating change in dietary intake and taste sensitivity in patients with primary aldostronism, following adrenalectomy or spironolactone treatment. This is part of a larger study investigating effects on obstructive sleep apnoea.

Taste CKD Study (McMahon E, Campbell K, Bauer J)
This cross-sectional longitudinal study is investigating taste function in CKD patients compared with healthy controls, and investigating the relationship between sodium intake and taste function in CKD. This study was completed in 2013 and the results were presented at the Nutrition Society of Australia conference 2013.

CKD.QLD Nutrition Study: nutrition status and outcome in CKD (Campbell K, Morey B, Manafi M, Campbell A, Boyce K)
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.

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.

Stability of adipokines under different blood handling conditions (Whitehead J, Rose F, Reeves M, Hickman I)
The correct handling of blood samples in large clinical trials is critical to ensuring quality data analysis. Maintaining strict handling conditions across numerous sites of blood collection is notoriously difficult. This study investigates the effect of different blood handling conditions, replicating realistic clinical environments, in order to determine the effect on key adipokines measured in serum.

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.

Clinical outcomes of vitamin D deficiency and supplementation in cancer patients (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.

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. Data collection will continue for two years.

Malnutrition screening in oncology day treatment unit (Abbott J, Teleni L, Isenring L)
This study aimed to determine the validity of a novel, automated screening system compared to the gold standard for nutrition assessment to investigate if such a system would be effective for identifying chemotherapy patients at nutritional risk. Investigators conducted and completed the study in 2013.
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.

Completed in 2013, this project investigated 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. Results presented at the World Congress of Nephrology and the Australia and New Zealand Society of Nephrology and published in the Journal of the American Society of Nephrology.

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.

The effectiveness of medical nutrition therapy in improving the dietary intake of acute care patients who eat poorly during hospitalisation (Agarwal E, Ferguson M, Isenring E, Harden H, Colquist S)
Reduced food intake during hospitalisation has been linked with poor nutritional status, reduced immunity, delayed recovery, and prolonged hospitalisation. The aim of this research is to understand what patients experience during mealtimes at the Princess Alexandra Hospital.

Nutrition in pressure ulcer study (Banks M, Nevin A, Isenring E)
Multicentre trial investigating the impact of an immunonutrition supplement on pressure injuries compared with standard nutritional care.

Achieving more effective weight loss with intermittent energy restriction (Byrne N, King N, Hickman I)
This study investigates the metabolic contributors to effective weight loss using intermittent calorie restriction versus continuous calorie restriction over the course of one year, and aims to determine factors which may improve success with weight loss attempts in overweight and obese patients.

Randomised controlled trial of a telephone-delivered weight loss intervention for overweight and obese women following treatment for breast cancer (Reeves M, Hickman I)
This study investigates the effectiveness of lifestyle intervention delivered via the telephone for achieving intentional weight loss in overweight women who have survived breast cancer. It aims to assess the role of obesity-related metabolic factors on outcomes such as relapse and quality of life.

Very Low Calorie Diet (VLCD) in cardiac surgery patients with obesity and metabolic syndrome (Marney L, Hickman I, Quick L, Mundy J)
Obese patients with features of the metabolic syndrome prior to undergoing elective cardiac surgery are at higher risk for surgical complications and slower recovery. This study initiates pre-surgical weight loss using a short term VLCD and assesses the effect on outcomes of elective cardiac surgery.

IMPROVE dietary sub-study: IMPact of Phosphate Reduction On Vascular End-points in Chronic Kidney Disease (Campbell K, Rossi M)
The main objective is to determine whether use of a phosphate binder (lanthanum carbonate) in subjects with chronic kidney disease stages 3b and 4 will reduce the risk and burden of cardiovascular disease. The aim of the dietary substudy is to explore the association between dietary phosphorous and aortic calcification and compliance.

Case series in meal replacements in CKD and dialysis patients (Campbell K, Murray E, Murray J, Noble S, Lee A, Dasey L)
The aim of the study is to measure weight and kidney function and report on any adverse events of obese patients with chronic kidney disease (CKD) who are routinely placed on very low calorie diets or meal replacement dietary regimens as part of standard practice.
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.

Feasibility of using indirect calorimetry to assess energy needs of patients with a spinal cord injury (Nevin A, Vivanti A, Atresh S, Kemp I, Simmons, I, Mayer H, Hickman I)

The use of standard prediction equations to estimate energy requirements is not appropriate in patients with spinal cord injury. The use of indirect calorimetry is recommended to assist in the accurate assessment of energy needs in this patient group but it is not commonly used in clinical practice. This study investigates the feasibility of using indirect calorimetry in the clinical setting for both clinical and research purposes.

Does patient perception of a dietitian contribute to why they do and don’t attend appointments with their dietitian? (Stack A, Ferguson M, Hickman I, Muller J, Colquist S, Harden H)

The purpose of this study is to explore current dietetic practice for diabetes management at the Princess Alexandra Hospital to inform service delivery planning. Dietetic intervention in those with diabetes is known to improve glucose control, cardiovascular risk factors and overall self management. However, patient non-attendance significantly affects patient outcomes and service efficiencies.

Fellowships, Awards and Prizes

Campbell K
- Young Achiever Award, Dietitians Association of Australia, May 2013

Ferguson M
- Barbara Chester Award, Dietitians Association of Australia, Oct 2013

McMahon E
- Young Investigator Award—Best Clinical Science from a developed country, World Congress Nephrology, International Society of Nephrology, June 2013
- Young Investigator Award Runner Up—Best Clinical Science, Australia and New Zealand Society of Nephrology 49th Annual Scientific Meeting, Sept 2013
- Young Investigator Award-Best Clinical Science, PAH 2013 Symposium
- 3-Minute Thesis Runner Up, 2013 UQ Faculty of Health Sciences

Rossi M
- Young Investigator Award—Best Oral Presentation, Nutrition in Medicine, May 2013
- ANZSN World Congress of Nephrology Travel Grant, June 2013

National and International Presentations

47th Australian and New Zealand Society of Nephrology Annual Scientific Meeting, 9-11 September 2013, Brisbane:
- Campbell K, Rossi M, Johnson D, Isbel N, ‘Uremic Toxins And Inflammation In Chronic Kidney Disease’
- McMahon EJ, Baver J, Hawley CM, Isbel N, Stowasser M, Johnson DW, Campbell KL, ‘Effect of sodium restriction on blood pressure, fluid status and proteinuria in CKD patients: results of a randomised crossover trial and 6-month follow-up’
- Murray E, McCoy S, Campbell K, ‘Benchmarking prevalence of malnutrition across Queensland dialysis units’
- Murray E, Rossi M, Isbel N, Campbell K, ‘Prevalence of sarcopenic obesity and relationship with inflammatory markers in CKD’
- Rossi M, Johnson D, Isbel N, Campbell K, ‘Uremic toxins originated from gut microbiota: Are they associated with inflammation and oxidative stress in CKD?’
• Whelan M, Hickman I, Eakin E, Goode A, Reeves M, ‘Making The Call To End Obesity: Evaluation Of A Telephone-Based Weight Loss Program Delivered In A Hospital Outpatient Setting’

Clinical Oncological Society of Australasia, 12-14 Nov 2013, Adelaide:
• Abbott J, Teleni L, Mckavanagh, Watson, Mccarthy A, Isenring E, ‘Validating a novel, low cost, automated malnutrition screening system as a predictor of nutritional risk in the oncology day care unit’
• Isenring E, ‘Update of radiotherapy and chemotherapy nutrition guidelines’

30th National Conference Dietitians Association of Australia, 23-25 May 2013, Canberra:
• Agarwal E, Vivanti A, Ferguson M, Banks M, Bauer J, Capra S, Isenring E, ‘Malnutrition Exists And Is Associated With Negative Outcomes In Morbidly Obese Hospital Patients’
• Campbell K, McMahon E, Manafi M, Campbell A, Johnson D, ‘Building A Dietetic Service To Meet The Needs Of Chronic Kidney Disease Patients’
• McCoy S, Campbell S, Macdonald G, Hickman I, ‘Perception Of Metallic Taste In End Stage Liver Disease And Its Relationship With Food Choices’
• Miller K, Vivanti A, ‘Accuracy Of Malnutrition Screening More Than One Year Post Training’
• Murray E, Lindsay J, Hinckley A, Vivanti A ‘Malnutrition Screening Solutions In Medical Assessment And Planning Unit’
• Whelan M, Hickman I, Eakin E, Goode A, Reeves M, ‘Feasibility Of A Telephone Based Weight Loss Program Delivered In A Hospital Outpatient Setting’

World Congress Of Nephrology, 31 May-4 June 2013, Hong Kong China:

Campbell K
• ‘BMI and Waist Circumference in Predialysis vs Dialysis’, NKF Spring Clinical Meeting, 2 Ap 2013, Florida USA
• ‘Diet for CVD in CKD—can we do better?’, Clinical Insights to CKD.MBD, 16 Mar 2013, Sydney

• ‘A Randomised Double Blind Placebo Controlled Trial Investigating The Clinical Effects Of Resveratrol In The Management Of Non Alcoholic Fatty Liver Disease’, Australian Society of Medical Research, 29 May 2013, Brisbane

• ‘Investigating the clinical effect of resveratrol in the management of non-alcoholic fatty liver disease: a randomized, double blind, placebo-controlled trial’, Australian Gastroenterology Week, Oct 2013, Melbourne

Chikani V, Cuneo R, Hickman I, Ho K

Ferguson M
• ‘Malnutrition screening? What next’, Food Matters Conference, 27 Apr 2013, Alberta Canada
• ‘Fortify your nutritional value: connecting malnutrition research to clinical practice’, Food and Nutrition Convention and Exhibition, 20 Oct 2013, Houston USA
• ‘A practical guide to scientific writing’, Cystic Fibrosis Dietitians in Australia and New Zealand, 17 Aug 2013, Auckland NZ

Haron N, Vivanti A, Barnes R
• ‘Challenges faced in developing a validated satisfaction survey for students completing nutrition and dietetics clinical placements’, ANZAHPE Conference, 2013, Melbourne
Isenring E
• ‘Nutritional management of patients with cancer’, AuSPEN, Nov 2013, Sydney
• ‘Nutrition counselling in patients with cancer’, 2013, Masc

Mccarthy Al, Isenring E, Yates P, Skerman H, Walpole E, Thomson D, Davidson W
• ‘Malnutrition And Chemotherapy: Implications For Nursing Practice’, Quadrennial Conference Of The International Council Of Nurses, 18-23 May 2013, Melbourne

McMahon EJ, Campbell KL, Bauer JD
• ‘Salt intake and taste sensitivity in CKD patients’, Nutrition Society of Australia, Dec 2013, Brisbane

Reeves M, Spark L, Hickman I, Mccarthy N, Denmark-Wahnefried W, Eakin E
• ‘feasibility of a weight loss intervention for women following treatment for breast cancer: living well after breast cancer’, European Congress Of Obesity, May 2013, Liverpool UK

Rossi M, Johnson D, Isbel N, Campbell K
Princess Alexandra Hospital Occupational Therapists are major contributors to the Occupational Therapy clinical knowledge base and the profession’s evidence-based clinical decision making. Research highlights in 2013 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. The Department continued activity in an NHMRC Centre of Research Excellence in Traumatic Brain Injury Rehabilitation with funding of $2.5 million (2012 to 2016) and was also involved in a successful NHMRC Project Grant award for brain injury rehabilitation research. In total the Department was awarded $885,000 in research funding in 2013.

Staff research profiles were strengthened nationally and internationally in 2013 through 11 publications in peer-reviewed journals and 21 presentations at national and international conferences. The Department supported six postgraduate students conducting research in the field of brain injury rehabilitation.

In 2013 Occupational Therapy team leader Dr Amanda Purcell received a prestigious Churchill Fellowship which enabled her to travel overseas to study head and neck lymphodema assessment and treatment techniques.

A major focus of the Department’s Research and Evidence Practice Program in 2013 was the introduction of a knowledge translation project across all clinical teams. Working with international experts and with funding support from the PAH Private Practice Trust Fund, the Occupational Therapy Department commenced a systematic program of knowledge translation of high quality evidence in identified areas of need using a series of action research cycles. This aims to address the evidence-practice gap and take us into 2014 with confidence that our research activity will enhance outcomes for patients.

Mary Whitehead
Director
Ruth Cox
Acting Director

Research Activities

Clinical Trials
Do people with severe traumatic brain injury benefit from making errors? A clinical trial of the efficacy of error-based learning and errorless learning training (Ownsworth T, Fleming J, Tate R, Shum D)
This NHMRC Project Grant which commenced in 2012 compares errorless learning with an error-based metacognitive skills training approach for improving functional skills in patients with traumatic brain injury. The trial protocol has been accepted for publication in 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. The project funded by Health Workforce Australia found no significant differences in patient outcomes or satisfaction when groups were led by an assistant. Paper accepted for publication in 2013.

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This project aims to compare the efficacy of occupational therapy groups led by occupational therapists and occupational therapy assistants. The project funded by Health Workforce Australia found no significant differences in patient outcomes or satisfaction when groups were led by an assistant. Paper accepted for publication in 2013.
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. Project commenced in 2013 with funding from the Private Practice Trust Fund.

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 study evaluates the efficacy of leisure therapy with rehabilitation clients following spinal cord injury.

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.

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.

Developing an objective circumferential measurement tool for head and neck lymphoedema (Nixon J, Purcell A, Presceddu S, Fleming J)
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 of a new measurement system using tape measurements and moisture meter measurement.

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, Presceddu 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.

The use of Bioimpedance spectroscopy in the early detection of oedema in a radiation oncology setting (Trevethan M, Searles J, Mitchell E)
This combined physiotherapy and occupational therapy project examines the clinical use of a new technology to detect oedema in cancer patients.

A retrospective study of compression therapy for lower limb muscle flaps (Stokes A, Rowe D, Marsh P, Sparks D)
This project involves a retrospective chart audit of patients who have lower limb muscle flap surgery, to investigate the use and timing of and outcomes from compression therapy.

Determinants of successful transition from hospital to home for individuals with acquired brain injury and their family caregivers (Fleming J, Naider 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. Project completed, two papers published and a paper and book chapter accepted for publication in 2013.

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 2013.

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. A paper reporting preliminary findings of surveys and focus groups illustrating the success of the initiative was submitted in 2013.

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 supported by a PA Foundation grant in 2013.
Brain Injury Service Patient Satisfaction Questionnaire (Griffin J, Kuipers P, Kendall M)

This study uses a patient satisfaction survey to evaluate the impact of service enhancements in the PAH Brain Injury Rehabilitation Unit (BIRU).

Evaluating the acquisition and maintenance of medical fitness to drive following traumatic brain injury through individualised, on-road driving remediation (Griffin J, Bassingthwaighte L, Fleming J)

A pilot randomised controlled trial with mixed methods investigating the effectiveness of driving remediation programs for improving fitness to drive in people with brain injury. Funded by a Division of Rehabilitation Community Rehabilitation Workforce project grant.

Effectiveness of a goal-directed intervention in achieving structure, balance and meaning in time use in people with hypoxic brain injury (Cornwell P, Shum D, Fleming J)

A series of single case experimental design studies investigating a community based occupational therapy intervention for people with hypoxic brain injury.


Two n=1 trials were conducted in 2013 investigating the impact of a novel intervention on goal achievement, self-awareness, and participation in meaningful occupation for participants with traumatic brain injury living in the community.


This study aims to explore the facilitators and barriers to client-centred approaches to goal planning and the relationship between contextual factors, client-centredness and outcomes with people undergoing outpatient brain injury rehabilitation. Ethics approval was granted and data collection commenced in 2013. Supported by a Division of Rehabilitation Community Rehabilitation Workforce Project 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. PhD student completed in 2013.

Fellowships, Awards and Prizes

Nixon J
- Australia and New Zealand Head and Neck Cancer Society Research Foundation Prize

Purcell A
- Dr Dorothea Sandars and Irene Lee Fellowship, Winston Churchill Trust

Stokes A
- Princess Alexandra Hospital Society Allied Health Travel Fellowship

National and International Presentations

Fleming J, Invited speaker:
- ‘How can we support transitions and participation in neurorehabilitation?’, James S McDonnell Foundation Workshop on Advancing the Science of Rehabilitation, 21-22 Feb 2013, Melbourne
- ‘Cognitive Rehabilitation Workshop’, Occupational Therapy Australia, 13 June 2013, Gold Coast

Fleming J, Ownsworth T
Older Adult Mental Health Service

Dr David Lie
Clinical Director

The Princess Alexandra Hospital Older Adult Mental Health Service provides specialised mental health assessment and treatment for inpatients from 65 years and older in Redland, Logan and Princess Alexandra Hospitals, residential aged care facilities and in the community. The Service is part of the Older Adult Academic & Clinical Unit within Metro South Addiction and Mental Health Services.

Dr David Lie has been Clinical Director since 2001 and has had a key role in developing psychogeriatric services across Queensland. His main academic interests revolve around dementia including health policy and the management of challenging behaviours.

In 2013 the Service continued its association with the Centre for Research in Geriatric Medicine (CRGM) to obtain a grant for pilot work in the pros and cons of early diagnosis in dementia. This connection opened up an opportunity to participate in a Cochrane review of computerised tests of cognition to be completed in 2014.

The B12 levels in older mental health patients project on Grevillea wrapped up. The practice point is that the B12 normal range in standard use may have too low a cut-off and findings supported the practice of B12 supplementation in the low-normal range for older adults.

Ongoing projects include publications in the area of public health for dementia, the impact of natural disasters on older adults and driving cessation in late life.

Dr David Lie
Clinical Director

Research Activities

The biomarkers of B12 and folate project
This project analysed vitamin levels in psychogeriatric inpatients against markers of actual vitamin deficiency among 100 consecutive admissions.

National and International Presentations

Lie D
• ‘Living with dementia in times of trouble: disaster preparedness for people and services’, Guest lecture (2013 series) Queensland Dementia Training Study Centre, Brisbane

Martin-Khan M, Travers C, Lie D
• ‘Dementia: a population health approach’, The 20th IAGG World Congress of Gerontology and Geriatrics, June 2013, Seoul South Korea

Travers C, Lie D
• ‘A brief staff dementia education program: implementation and evaluation’, 46th Australian Association of Gerontology National Conference, 27-29 Nov 2013, Sydney

Travers C, Martin-Khan M, Lie D
The Princess Alexandra Hospital Orthopaedic Unit provides a comprehensive world-class tertiary orthopaedic service within a multi-disciplinary setting. Located within the PAH Division of Surgery, 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 research activity of the Orthopaedic Unit in 2013 continued across the broad spectrum of orthopaedics. The evidence-based management of the fragility hip fracture patient remained a focus. The Unit participated in a global initiative within the Health Roundtable looking at the use of ‘bundles of care’ to reduce variation in care for patients with fragility hip fracture. This proved a successful clinical model resulting in significant reduction in variation of care.

Through the outstanding commitment and engagement of the medical, nursing and allied health staff the Unit maintains a high standard across the breadth of the provision of orthopaedic services.

Dr Cameron Cooke
Director

Dr Mark Dekkers
Dr Doug King
Deputy Directors

Research Activities

Bisphosphonate therapy in osteonecrosis of the hip
(Cooke C, Duncan E)
The aim of the study is to determine the efficacy of zoledronic acid for reducing pain and disability in hip osteonecrosis and in reducing progression to femoral head collapse and the need for surgical intervention.


Fellowships, Awards and Prizes

North J
• Royal Australasian College of Surgeons E.S.R. Hughes Medal for distinguished contributions to surgery

National and International Presentations

Jones D, North J
• ‘Telehealth fracture management-Keeping Families Together’, AOA Annual Scientific Meeting, Oct 2013, Darwin

Ling J
• Australian Orthopaedic Association Annual Scientific Meeting:
  – ‘Bisphosphonate-related atypical femoral fractures: a review of cases’
  – ‘Implementation of a multidisciplinary hip fracture unit at a tertiary hospital: a review of performance and outcomes’
  – ‘Patterns of injury and morbidity associated with ladder, roof and scaffolding falls in patients over 50 years of age’
North J

- ‘Paediatric fracture management using telehealth-reducing distance based barriers to consultant access’, Royal Australasian College of Surgeons Annual Scientific Congress, May 2013, Auckland
- ‘Telehealth fracture clinics, fact or fiction’, Royal Australasian College of Surgeons Queensland Annual Scientific Meeting, Aug 2013, Cairns

North J, Jones D, Lucas K

- ‘Paediatric Fracture Management via Telehealth’, AOA Annual Scientific Meeting, Oct 2013, Darwin

North J, Rey-Conde T, Faint S, Allen J

The Department continued to grow its clinical delivery service, with around 600 head and neck cases in 2013. To ensure all cases continued to be dealt with in a timely fashion service expansion was addressed with the appointments of Dr James Bowman and Dr Raefe Gundelach.

Academic output continued to grow with an increase in the number of peer-reviewed journal articles and the completion of two Masters of Philosophy theses around our core research programs of head and neck cancer and upper airway inflammation. We continued to lead in education programs running an endoscopic skull base cadaver dissection course and our annual head and neck cadaver dissection course. A dysphagia workshop with our speech pathologists was conducted and telelinked to four regional centres. Our fifth thyroid course under the guidance of Chris Perry continues to be the premier event of its kind in Australia attracting 115 registrants.

With the new Queensland Head and Neck Cancer Centre on the PAH campus providing a clinical trials coordinator, our trials grew in keeping with our goal of turning each clinical event into a research event. The enthusiasm for research has been infective and the number of ethics submissions continues to climb. Additionally, in keeping with the goals of translational research, formal links have been established with groups at QIMR, TRI and PACE. Amongst this we remain cognisant that it’s all about the patient and we feel we have successfully integrated a culture of research while not detracting from the primary goal of patient care.

**Associate Professor Ben Panizza**  
Chairman and Director Department of Otolaryngology - Head and Neck Surgery

### Research Activities

#### Clinical Trials

**Post-operative concurrent chemo-radiation versus post-operative radiotherapy in high-risk cutaneous SCC of the head and neck** *(Porceddu S, Panizza B, et al)*  
This is a two-armed randomised trial to determine whether there is a difference in time to loco-regional cancer relapse between the two treatment groups.

This is a prospective single-armed trial with the main objective of assessing the efficacy and safety of omitting a neck dissection at the time of parotidectomy in this group requiring post-operative radiation.

**Adoptive immunotherapy for Epstein-Barr virus associated nasopharyngeal carcinoma** *(Khanna, Moss, Panizza, Porceddu)*  
This is a phase I, open-label, non-randomised adoptive immunotherapy trial. The aims are to adoptively transfer autologous LMP/EBNA1-specific cytotoxic T lymphocytes (CTL) into stage II, III and IV nasopharyngeal cancer patients and assess tolerability, safety, effect on EBV immunity and clinical effect in patients.

**To develop a method to detect circulating tumour cells (CTCs) in metastatic head and neck squamous cell carcinoma** *(Kulasinghe A, Punyadeera C, Nelson C, Perry C)*  
This study compares the FDA approved platform with another CTC blood filtration platform. This study accommodates a Master of Philosophy student under the supervision of Dr Punyadeera.
Studying the factors involved in the perineural spread of cutaneous squamous cell carcinomas of the head and neck (Panizza B, Warren T, Chawla C, Boyle G, Parsons P)
The objective of this study is to increase our understanding of neurotropism by identifying the genetic factors that allow the perineural spread of SCC utilising microarray technology, cell lines, a mouse model and epidemiological data. This study accommodates a Doctorate and a Master of Philosophy student under supervision of Dr Ben Panizza.

Defining the role of HPV in the causation of oral cavity cancers in non-smokers (Zammit A, Perry C, Frazer I)
This research aims to identify factors that contribute to the cause of oral cavity cancers and to determine if HPV has a role in causing cancers within the oral cavity and/or what other factors are implicated. This study accommodates a Master of Philosophy student under supervision of Dr Chris Perry.

This study is set to move from the laboratory to a phase 1 trial analysing the effect of EBC46 on palliative care patients with an advanced head and neck SCC. This study accommodated a Master of Philosophy student in 2013 under supervision of Dr Ben Panizza.

Individualising care of tongue cancer using markers of genomic stability (Jenkins G, Porceddu S, Richards D, Panizza B)
This research commenced in 2013 and will continue into 2014 using mouse models to study genomic stability of tongue cancer. This study accommodated a Master of Philosophy student under the supervision of Dr Ben Panizza and Dr Derek Richards.

A simple saliva test to diagnose head and neck cancer at an early stage (Punyadeera C, Perry C, Frazer I, Coman S, Lambie D)
The aim of this study is to characterise saliva’s physical properties (such as viscosity, elasticity and ability to lubricate) and associate them with its biochemical properties. This study accommodates Master of Philosophy and Doctorate students under the supervision of Dr Punyadeera.

A saliva-based method for the detection of HPV-associated oral cancers (Chai R, Frazer I, Lambie D, Perry C, Coman W, Punyadeera C)
The aims of this project are to develop a saliva-based assay for the identification of HPV genotypes in patients with oral squamous cell carcinoma (OSCC) in high-risk groups and to quantify and correlate the levels of epidermal growth factor receptor (EGFR) in HPV positive saliva.

Salivary glycoproteins as biomarkers for head and neck squamous cell carcinoma (Caragata M, Punyadeera C)
In this study, Lectin Magnetic Bead Array (LeMBA) is used to isolate salivary glycoproteins in patients with HNSCC of the oral cavity to find biomarkers of HNSCC using Mass spectrometry based discovery and validation methods.

Other Research
Head and Neck Cancer Study (Antonnson A, Porceddu S, Whiteman D, Panizza B)
The aim of this study is to refine aetiological causes of head and neck SCC; determine HPV prevalence and type present in tumours of patients with HNSCC; quantify and compare risk factors between controls and patients; investigate if clinical outcome is influenced by lifestyle and HPV status.

Squamous cell carcinomas of the head and neck: exploring the role of HPV infection (Antonsson A, Whiteman D, Neale R, Coman W, Porceddu S, Pryor D, Joakim Dillner K)
This research studies tumours from patients with oral cavity SCC to determine HPV status in conjunction with cellular response, genetic factors and clinical factors to provide comprehensive information about the aetiology and prognosis of these cancers.

HPV in oral squamous cell carcinoma – a retrospective study (Emmett S, Antonsson A, Whiteman D, Jenkins G, Panizza B)
This study investigates 64 tumour samples from patients diagnosed with oral cavity SCC between 2006 and 2011 at the Princess Alexandra Hospital. Tissue DNA was extracted and HPV prevalence tested by PCR, sequencing, immunohistochemistry and tissue microarray.
Fellowships, Awards and Prizes

Warren T
- NHMRC Postgraduate Scholarship

National and International Presentations

Panizza B, Presentations:
- ‘ENT image guided surgery in Australia: an update on indications, rebates and systems’, 18 Mar 2013, Perth
- ‘Reaches and limits of skull base surgery for perineural invasion’, 19 Mar 2013, Perth
- ‘Head and neck radiology – integration of surgeon and radiologist’, Medical Imaging Nurses Association Australia National Conference, 17-19 May 2013, Gold Coast
- ‘PNI – an ENT surgeon’s perspective’, Global Controversies and Advances in Skin Cancer, 21-24 Nov 2013, Brisbane
- Guest faculty, ‘State-of-the-art endoscopic skull base surgery: a hands on course’, 31 Oct–3 Nov 2013, Columbus Ohio USA

Panizza B, Courses Run:
- Sleep and OSA Surgery Dissection Course, 17-18 Oct 2013, Brisbane
- PA Hospital Head and Neck Cadaver Dissection Course, 5-6 July 2013, Brisbane (56 attendees)
- Dysphagia Workshop, Princess Alexandra Hospital, 4 July 2013, Brisbane (22 attendees, plus 4 regional centres by telelink)
- Queensland Skull Base Unit Endoscopic Skull Base Cadaveric Dissection Course, 27-29 June 2013, Brisbane (56 attendees)
- 5th Multidisciplinary Update on Thyroid and Parathyroid Surgery, 14-16 Nov 2013, Noosa (115 attendees)
Pathology Queensland provides pathology services to all Queensland public hospitals including the Princess Alexandra Hospital.

Pathology Queensland underwent contestability assessment in 2013 as part of Health Sciences & Services Authority (HSSA) Business Strategy Review. The assessment was in line with Pathology Queensland’s vision to be a market leading contemporary provider of healthcare support services, and an innovative and market competitive commercial organisation that partners with its customers to improve health outcomes for the community.

Other achievements of Pathology QLD-PAH in 2013 included:

- PAH Laboratory became a Group Laboratory taking on the supervision of the laboratories in the Ipswich, QEII and Redland Hospitals
- Both the Anatomical Pathology Laboratory and the Bone Marrow Transplant Laboratory at PAH were assessed by the National Association of Testing Authorities (NATA) Australia and were recommended to continue accreditation
- PAH Chemical Pathology Laboratory continued its active research programs with the publication of seven research articles in peer-reviewed journals.

The PAH Laboratory supports clinical trials across the spectrum of services provided by Metro South Health enabling patients in the HHS to access the most up-to-date treatments available.

Dr Nigel Brown
Director

Dr Guy Lampe
Acting Director

Fellowships, Awards and Prizes

Cheung K
• OAM (Medal of the Order of Australia) in the General Division
The Pharmacy Department has a strong involvement in research, with a full time clinical trials pharmacist who is responsible for pharmaceutical management for over 100 clinical trials. The pharmacist position is supported by funding from both investigator initiated and pharmaceutical company sponsored clinical trials. A major focus of the Department’s research continues to be around cancer care and pharmacist prescribing, with important publications in both these areas in 2013. We also have 0.5 FTE pharmacist dedicated to managing the cancer trials of which there are over 60 in progress, a number of which are international multi-centre studies focusing on the treatment of melanoma.

The Department continues to support hospital research in other departments by providing pharmaceutical management including dispensing, accountability recording, and liaising with investigators/research assistants. Many of these clinical trials are international multi-centre high profile pivotal studies.

The diversity of the research for the Department’s PhD students is impressive and includes quality use of medicines research, two pharmacist prescribing RCTs, drug stability data, and pharmacokinetic modelling in cancer care. Many of our researchers have been invited into statewide and national networks as a result of their research.

Pharmacist prescribing research has been of wide interest in the pharmacy profession with one of our researchers in this area being asked to be a lecturer on a newly developed educational program in New Zealand to train pharmacist prescribers. As well as this the pharmacist continues to support undergraduate student research projects, with the department supervising 16 of these in 2013.

Ms Lynette Loy
Director

Research Activities

Clinical Trials

Obesity and chemotherapy dose response in adjuvant breast cancer – pharmacokinetic study (Sandhu G)
This study aims to determine the significance of obesity on efficacy and toxicity of high dose cancer chemotherapy for NHL, develop a PK and PD model for methotrexate dosing in NHL adult patients, and establish both a body composition descriptor which predicts the methotrexate PK variability and a methotrexate cancer chemotherapy dosing algorithm for obese patients in NHL.

Gabapentin for taxane associated acute pain syndrome - a randomised, placebo-controlled, crossover trial: ‘The TAPS Trial’ (Houston K [Nambour Hospital], Cuff K, Carrington C)
This multi centre study aims to determine the activity and safety of gabapentin for Taxane associated acute pain syndrome (TAPS) in women receiving adjuvant docetaxel for early breast cancer.

Can ginger ameliorate chemotherapy-induced nausea? A double-blind, randomised placebo controlled trial (McKavanagh D)
The current treatments CINV for this have problematic adverse effects and are not always effective. Ginger is a well recognised natural treatment for nausea. This trial aimed to see if ginger might help with nausea in these patients.

A randomised controlled trial of a pharmacist initiated smoking cessation intervention (Gupta D)
Community pharmacists performing complex interventions with psychotherapy can improve quit rates. This trial aims to test the hypothesis that a brief intervention by a hospital pharmacist improves the acceptance of NRT on discharge and quit rates at 3 months.
Other Research

Cetuximab use in metastatic colorectal cancer at Princess Alexandra Hospital: streamlined analysis using electronic medical record data (McKavanagh D)
This study aims to describe the use of two high cost monoclonal antibodies (cetuximab and bevacizumab) in metastatic colorectal cancer, and to use this to benchmark practice against the evidence base and between the participating sites.

Clozapine is a high risk antipsychotic agent used for the indication of treatment resistant schizophrenia (TRS). It also the most effective treatment for this devastating condition. Concerns have been raised about both under and overprescribing of this drug. This research aims to describe statewide prescribing of clozapine.

Process review of parenteral cancer chemotherapy supply at PAH – impact of dose-banding, advance clinic review, and outsourcing of production (McKavanagh D)

Validating a novel, low cost, automated malnutrition screening system as a predictor of nutritional risk in the Oncology Day Care Unit (Carrington C)

Fellowships, Awards and Prizes

Sandhu G
• Three Minute Thesis People Choice Award winner, UQ School of Pharmacy

National and International Presentations

Carrington C
• Invited speaker, Society of Hospital Pharmacists of Australia Advanced Seminar for Cancer, 22-23 March 2013
  – ‘Breast Cancer - new advances in therapy’
  – ‘Personalising delivery of cancer therapy’
• Invited speaker, ‘The Administration of cancer chemotherapy’, Clinical Skills for Pharmacy Cancer Practitioners CPG Course, 22-23 Mar 2013, Brisbane
• Invited speaker, International Society of Hospital Pharmacists Symposium, 10-11 Aug 2013, Melbourne
  – ‘Regorafenib - a new multi targeted TKI inhibitor’
  – ‘Oral chemotherapy - maintaining specialist services with oral chemotherapy ISOPP’
• Invited speaker, Clinical Oncology Society of Australia ASM, 12-14 Nov 2013, Adelaide
  – ‘Medication adherence - translating information into action’
  – ‘Oral chemotherapy challenges and solutions - what the Pharmacist can do’
  – ‘The advanced level framework in Cancer Services’
  – ‘Oral chemotherapy - keeping the specialist in’
• Invited speaker, ‘Complementary and alternative therapies for brain tumours - how do you know what’s safe?’, Cancer Council Queensland, Brain Tumour Support Service
• Speaker/organiser, PAH Advanced Trainees Registrars Seminar Series
  – ‘Principles and pharmacology of chemotherapy’
  – ‘Alkylating agents’
  – ‘Plant Alkaloids and taxanes’
  – ‘Monoclonal antibodies’
• Invited speaker, ‘Pharmacology of CINV-Individualising patient care’, 2013 National Nurses Forum on Chemotherapy Induced Nausea and Vomiting

Hale A
• ‘Pharmacist prescribing in pre-sdmission clinic’, Seminar, May 2013, Auckland University
• ‘Safe medication practice tutorials to New Zealand pharmacy student’, May 2013, Auckland University
• ‘The pharmacist prescribing puzzle – putting together the pieces, more than just pills and paper’, 39th Society of Hospital Pharmacists of Australia National Conference, 19-22 Sept 2013, Cairns

McDougall D
• Invited speaker, ‘What’s new in outpatient parenteral antimicrobial therapy’, Australian Society for Antimicrobials, 21-23 Feb 2013, Sydney

McKavanagh D
• Invited speaker, Advanced Trainee Pharmacology of Chemotherapy Lectures, Nov2013, Brisbane
• Course convener and Invited speaker, Clinical Oncology Society of Australia CPG Clinical Skills for Cancer Pharmacy Practitioners Course presentation, ‘Fundamentals of chemotherapy’, May 2013, Brisbane
The Princess Alexandra Hospital Physiotherapy Department had an exceptionally productive year during 2013. The Department was awarded over $380,000 funding and was awarded two new competitive research grants from the International Society for Prosthetics and Orthotics and Multiple Sclerosis Research Australia, respectively.

One member of staff received a Health Professional Scholarship from the National Heart Foundation of Australia. The Department also generated ten publications in prestigious journals such as Brain Impairment, BMC Neurology, Physiotherapy, and Arthritis Care & Research. These publications included eight original articles, one review article, and one published conference abstract.

Research activity within the Department continued to increase, with 33 studies in progress, and six members of staff undertaking higher research degrees. During 2013, our Physiotherapy staff delivered multiple local, national and international conference presentations, including invited presentations, and showcased aspects of their research activity during PA Week.

The Physiotherapy Research Committee, chaired by Dr Anna Hatton, continued to stimulate research activity and boost research skills amongst senior and junior staff, with monthly attendances averaging from 12 to 15 and meetings including educational seminars and presentations from physiotherapy staff. The Department was also represented by attendance of our staff at Metro South Health Practitioner Research Collaborative meetings.

Kathy Grudzinskas
Director

Cherie Hearn
Deputy 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 a PhD student recruited.
Other Research

Functional Outcomes of Lower Limb Amputees (Batten H, [Supervisors: Kuys S, McPhail S, Nitz J, Varghese P])
This study aims to explore the functional outcomes of adults following lower limb amputation. Ethical clearance has been obtained. Data collected; analysis underway.

Ethical clearance has been obtained. Data collection, analysis and manuscript preparation (under review) for the first study is complete. Further data collection planned for 2014.

Providing heart failure rehabilitation in the home via telerehabilitation: a randomised controlled trial (Hwang R, Russell T)
This project will evaluate the effectiveness of a 12-week structured HF rehabilitation program that is delivered into patients’ homes via telerehabilitation compared to a 12-week program delivered face-to-face. Ethical clearance has been obtained, study protocol developed, and participant recruitment commenced.

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 for 6 and 12 months follow-up completed. One PhD student enrolled in this project.

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.

The effect of Nintendo Wii-Fit on outcomes in people with lower limb injuries (Kuys S, Tonks P, McPhail, O’Hara M)
This study aims to examine the effectiveness of Nintendo Wii Fit 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, Ownsworth T)
The study aims to determine what sit to stand strategies are used by people with dementia and healthy elderly people. Data have been collected. Data analysis and manuscript preparation underway.
Seating for patients in general medicine wards (Kuys S, Dolecka UE, Morrison CA)
The aim of this study is to identify seating needs across General Medicine and develop specifications for bedside chairs. This project has been completed and the findings published.

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. Manuscript published.

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 on activity levels during hospitalisation. Data collection is ongoing; two manuscripts published.

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 re-presentation to hospital. Data collection completed. Analysis underway.

Incidence and prevalence of incontinence in patients with heart failure (Hwang R, Chuan F, Peters R, 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. Two manuscripts published.

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. Manuscript accepted for publication.

The project aims to determine the efficacy of an aquatic exercise programme in people with heart failure, specifically for improving exercise capacity, balance and quality of life for patients with heart failure. Data collection completed.

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. Project 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. Manuscript in preparation.

Reliability, validity and predictive capacity of the Queensland Wheelchair Skills Assessment Tool (QWSAT) (Gollan E, Simmons J, McPhail S)
The aim 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. Data collection is ongoing.

The aim of this study is to assess the efficacy of the SMART Arm during the acute/subacute stage of recovery. This project was completed in Dec 2013.
Centres for Health Research 2013 Annual Research Report

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. Data collection underway.

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 were published in 2013.

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 multi-disciplinary group education program improves outcomes for patients with chronic neck and back pain. Data collection and analysis continues.

The effect of aquatic physiotherapy on outcomes in individuals with ankylosing spondylitis
(Warner J, Pettet E, Tonks P, McPhail S)
This project aims to investigate whether patients with ankylosing spondylitis who undertake aquatic group physiotherapy and complete a home exercise program have improved clinical and functional outcomes. Data collection and analysis are underway.

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. Data analysis underway.

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. Final editing with Forms Committee underway.

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.

Do motor assessment scale scores reflect functional outcomes following physiotherapy intervention?
(Palak A, Smith C, Hatton A, Kuys S)
The purpose of this project is to investigation the appropriateness of the hierarchy and level of difficulty between sub-tests within the Motor Assessment Scale. Application for ethical clearance has been submitted. Data collection will commence in 2014.

Stroke-IMPACT trial (Brauer S, Kuys S, Ada L, Paratz J)
This project examines the effectiveness of implementing a combined high intensity treadmill training program embedded in a self-management approach to improve activity levels, mobility, cardiovascular risk profile in stroke survivors. Ethical clearance obtained and data collection commenced.

The effect of Nintendo Wii-Fit on endurance, balance and rehabilitation engagement following a traumatic brain injury (McClanachan NJ, Gesch J, Wuthapanich N, Fleming J, Kuys SS)
This study aims to determine whether the Nintendo Wii Fit is feasible to use in a rehabilitation setting as an adjunct to conventional physiotherapy for people following a traumatic brain injury. Data collection and analysis are complete and the results published in 2013.

Physical practice during and outside of therapy during inpatient rehabilitation: a mixed methods study
(Brauer S, Hayward K, Kuys S)
This study explores the physical practice of stroke survivors when they are and are not participating in therapy. Evaluation of the difference in perceptions of undertaking physical practice outside of therapy between clinical staff, carers and stroke survivors will be completed. Data collection underway. Manuscript under review.
National and International Presentations

**Batten H, Nitz J, Kuys S, McPhail S, Varghese P**
- ‘Are the outcomes of lower limb amputee rehabilitation changing?’, World International Society of Prosthetics and Orthotics, 4-7 Feb 2013, Hyderabad India

**Hatton AL, Kemp JL, Brauer SG, Clarke RA, Crossley KM**
- ‘Dynamic single-leg balance performance is impaired in individuals with hip chondropathy’, Osteoarthritis Research Society International World Congress, 18-21 Apr 2013, Philadelphia USA
- ‘The effect of hip chondropathy on single-leg balance performance in adults’, 2nd Joint World Congress of the International Society for Posture & Gait Research & Mental Function, 22-26 June 2013, Akita Japan

**Kuys S, van der Ham E, Hwang R, Adsett J, Mandrusiak A**
- ‘Falls, falls risk and musculoskeletal pain in older adults with chronic heart failure’, Australian Physiotherapy Association Conference, 17-20 Oct 2013, Melbourne

**McPhail M, Kuys SS, et al**
- ‘Exercise-based subacute orthopedic rehabilitation for older adults: age did not influence improvement in gait performance’, World Congress on Exercise is Medicine, 28 May-1 June 2013, Indianapolis USA

**McPhail SM, Kuys SS, Burgess K, Varghese P**
- ‘Age did not influence improvement in gait performance among older adults undergoing in-hospital rehabilitation for orthopaedic conditions’, Australian Physiotherapy Conference, 17-20 Oct 2013, Melbourne

**Seeto T, Griffin E, Budden C, Kuys SS, McPhail S**
- ‘Combined multidisciplinary early intervention for patients with impaired consciousness’, Australian Physiotherapy Conference, 17-20 Oct 2013, Melbourne
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. The QMP is a collaboration between the hospital’s Medical Oncology and Radiation Oncology Departments and the Upper GI & Soft Tissue Unit.

The Queensland Melanoma Project celebrated its 50th anniversary in 2013. The highlight of the celebrations was a one day conference in Brisbane looking at advances in melanoma in the last 50 years. Topics included melanoma and public health, trends in clinical and pathological diagnosis, progress in the surgical treatment and the changing role of the management of advanced melanoma. The day was well attended.

The Unit continues to be involved in a number of local, national and international clinical trials treating patients with intermediate thick primary melanomas through to advanced disease. A strong focus for the unit in 2013 was the collection of tissue samples for the melanoma tissue bank with continued collection of clinical information from patients with high risk melanoma.

**Research Activities**

**Clinical Trials**

**Phase III randomised double blind study of dabrafenib (GSK118436) in combination with trametinib (GSK1120212) versus two placebos in the adjuvant treatment of high-risk BRAF V600 mutation-positive cutaneous melanoma after surgical resection (Atkinson V, Thomson D, Walpole E, Smithers M, Barbour A, Bayley G, Allan C)**

The primary objective for this study is to evaluate relapse-free survival in patients with completely resected, histologically confirmed, BRAF V600E/K high-risk, stage III cutaneous melanoma.

**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.

**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, Burmiester B)**

The objective of this study is to examine the impact of surgical resection versus medical therapy as initial treatment therapy for patients with Stage IV melanoma. This study was closed in 2013 due to poor recruitment internationally.

**Efficacy of recMAGE-A3 + AS15 ASCI as adjuvant therapy in patients with MAGE-A3 positive resected stage III melanoma (Smithers M, Barbour A, Bayley G, Allan C, Walpole E, Burmiester B)**

The objectives of this study are to assess the efficacy in terms of Disease-Free Survival of the 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. In 2013 analysis showed that the primary endpoint was not met. Follow-up continues to test the secondary endpoints.

**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, Burmiester 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.

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. There are currently 1,900 patients.

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. There are currently 142 patients.

Biomarkers for Stage III melanoma recurrence and response to radiotherapy (Barbour A, Smithers M, Wayte N, Frankel A, Burmeister 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.
Fellowships, Awards and Prizes

Barbour A
- James IV Travelling Fellowship

Smithers M
- External examiner, Final Year Surgery Examinations, Medical School, Chinese University of Hong Kong (Chairperson)
- External examiner, Medical Licencing Examinations, Hong Kong

National and International Presentations

Allan C
- Invited speaker, ‘The role of surgery for systemic metastasis in the age of targeted therapy’ and ‘We need a trial to evaluate whether patients with involved inguinal lymph nodes should have inguinal or ilio-inguinal lymphadenectomy’, Global Controversies in Skin Cancer, Nov 2013, Brisbane

Barbour A
- Invited speaker, ‘Evidence based surgery for primary melanoma’ and ‘Treatment of Merkel Cell Carcinoma: surgery and radiation - how much of each?’, Global Controversies in Skin Cancer, Nov 2013, Brisbane

Bayley G
- Invited speaker, ‘Surgical management of primary head and neck melanoma’, Global Controversies in Skin Cancer, Nov 2013, Brisbane

Smithers M
- Invited speaker, ‘Surgical management of lentigo maligna melanoma’, Skin Cancer Conference, March 2013, Surfers Paradise
- Invited speaker, ‘Choosing a being a good mentor’, Developing Career in Academic Surgery (DCAS) Course, May 2013, Auckland NZ
- Invited speaker, ‘What not to do in research’, Australian Medical Association, Research Information Evening, July 2013, Brisbane
- Invited speaker, ‘Choosing a mentor’, Griffith University Surgical Interest Students (Surgia), Mentor Evening, Aug 2013, Southport
- Invited speaker, ‘The history of the Queensland Melanoma Project’ and ‘Sentinel node biopsy in Brisbane’, Global Controversies in Skin Cancer, Nov 2013, Brisbane
- Speaker, ‘The volume–outcome relationship in cancer surgery – do rural patients have a choice?’ and Symposium, ‘Outcomes versus access - who is most vulnerable?’, Clinical Oncology Society of Australia Annual Scientific Meeting, Nov 2013, Adelaide
- Speaker, ‘The primary melanoma project: initial treatment of patients with stage IB/II cutaneous melanoma in Queensland’, Global Controversies in Skin Cancer, Nov 2013, Brisbane
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).

QSCIS aims to assist individuals who have suffered spinal cord injury to reach their maximum potential, and stay healthy. The Service uses a unique continuum for acute care, rehabilitation and ongoing management of individuals with spinal cord injury, representing a best practice model in this field.

QSCIS uses an interdisciplinary team approach to service delivery and all QSCIS services have active research programs.

Dr Sridhar Atresh
Director

Spinal Injuries Unit (SIU)

The SIU is the only specialist spinal injuries unit in Queensland and offers both acute and rehabilitation services. In 2013 the interdisciplinary team had continued involvement in three international clinical trials, detailed below. Other research projects by team members during 2013 included research in the areas of leisure therapy, dietetics, and the evaluation of wheelchair skills. These projects are due for completion in late 2014.

Research Activities

Clinical Trials

SCIPA (Spinal Cord Injury and Physical Activity) Hands-On (Geraghty T, Tsai P, Jones R, Pick V, Cullen C, Wallace M)

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 was completed on 31 Dec 2013 and totalled 11 patients from this site. Completion of the study is expected mid 2014. Funded through the Victorian Neurotrauma Initiative.

COSAQ: (CPAP for Obstructive Sleep Apnoea in Quadriplegia) (Geraghty T, Tsai P, Deuce B, Jones R, Pick V, Lewis J)

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. In order to reach target numbers for this study, recruitment was extended to June 2015. The study is now due for completion in October 2015. COSAQ is funded by The Institute for Breathing and Sleep.

SCIPA (Spinal Cord Injury and Physical Activity) Switch ON (Atresh S, Jones R, Pick V, Simmons I, Gollan E, Burgess K, Ungerer G)

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. Recruitment for this study was extended until May 2014 and completion is expected in October 2014.

QEWS development, reliability and validity of the Queensland Evaluation of Wheelchair Skills (Gollan E)
Other Research

Leisure therapy in the Spinal Injuries Unit: using goal attainment as a measure of service delivery outcomes during rehabilitation (Martin K)

Feasibility and barriers to the implementation of indirect calorimetry as part of routine nutrition care for individuals recovering from spinal cord injury (Nevin A, Atresh S, Simmons J, Kemp I)

National and International Presentations

Australia and New Zealand Spinal Cord Society (ANZSCS) Annual Scientific Meeting, 21-23 Aug 2013, Sydney:

- Coffey M, Budden C, ‘Getting your housemate to take you seriously: customising “Housemate Software” for a patient with dystonia post cervical spinal cord injury’
- Martin K, ‘Leisure therapy—a new service in the Queensland Spinal Injuries Unit’
- Oh S, Campbell J, ‘When can I get a Powerchair?’

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 (SIU). TRP employs a research officer who assists the team to undertake research to inform clinical practice and service delivery.

During 2013 the TRP made progress on several research projects while securing funds for new studies. Research on identity following spinal cord injury and acquired brain injury was a key project for the year with data collection completed towards the end of 2013. New collaborations were initiated on research exploring healthcare complexity and the benefits of peer group supervision for allied health professionals. New funding was acquired to investigate goal planning across the continuum of care through a collaborative study with the Spinal Injuries Unit. New funding was also acquired to investigate the transition to rural communities for individuals with spinal cord injury discharged from transitional rehabilitation.

Two new funded collaborations with the Spinal Outreach Team (SPOT) involve research looking at opinion leader models in spinal cord injury as well as the development of a new tool to explore and measure person-environment congruence in community rehabilitation. These projects will commence in 2014.

Greg Ungerer
Manager, TRP

Research Activities

Goal planning in a continuum of care: making it all fit (Ungerer G, Kendall M, Harre D)

This is a newly funded study aimed at exploring how goal planning works across inpatient and community settings where there is a continuum of care for spinal cord injury such as that offered in Queensland. The study has received ethics approval and will commence data collection in 2014.

Returning to regional, rural and remote communities following spinal cord injury: an ecological investigation to inform policy and service delivery (Kendall M, Hinchy K, Booth S)

This is a new study that received funding during 2013. The study explores the issues that individuals with spinal cord injury, their families and community service providers face when they return to live in regional, rural or remote settings after receiving transitional rehabilitation in an urban setting. The study has received ethics approval and will commence data collection in 2014.


See SPOT report
Evaluating the “Person-Environment Profile” – a new tool for community rehabilitation practitioners and clients (Amsters D, Schuurs S, Kendall M, Kuipers P)
See SPOT report

Finding the new me an exploration of personal identity following traumatic injury
See ABIOS 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

Fellowships, Awards and Prizes
DiMichele R, Matveyeff J

SPINAL OUTREACH TEAM (SPOT)
The Spinal Outreach Team (SPOT) is a community allied health and nursing rehabilitation 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
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 prepared for dissemination.

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. The first paper from this study was published in 2013.

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.

This research proposes the use of consumer engagement methods to explore the determinants of participation and inclusion after SCI and the potential application of this knowledge to contemporary rehabilitation practice.

Evaluating the “Person-Environment Profile” – a new tool for community rehabilitation practitioners and clients (Amsters D, Schuurs S, Kendall M, Kuipers P)
The project will test and refine the Person Environment Profile which is intended to enhance a clinician’s understanding of their client’s personal and environmental circumstances as they relate to each rehabilitation goal that is set.

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

National and International Presentations
Ladhams J, Malt J
• Invited speakers, ‘Community management of spinal cord injured clients with dual diagnosis’, American Spinal Injury Professionals Conference, 1-4 Sept 2013, Las Vegas USA
After twelve years of service at Princess Alexandra Hospital, Radiation Oncology has become a major cornerstone of cancer therapy. Many referrals come from across Queensland and interstate for specialised radiotherapy treatment including stereotactic therapies for malignant primary and secondary tumours and, more recently, for benign intracranial tumours including arteriovenous malformations and acoustic neuromas. Replacement of intensity modulated therapy program with the more efficient volumetric arc therapy is under way to reduce waiting times.

I am delighted to congratulate Margot Lehman for achieving an academic title of Associate Professor from the University of Queensland, clearly a result of her outstanding contribution in the fields of postgraduate education and her involvement in multicentre clinical research. Three of our seven consultants are both grant holders and principal investigators of multicentre clinical trials involving radiotherapy, including Dr Matthew Foote who received a grant from Cancer Australia for his randomised clinical trial of radiotherapy versus observation for resected neurotropic melanoma. Dr Renee Finnigan commenced a one year fellowship in our Department doing research projects in stereotactic radiotherapy, oesophageal, breast and pancreatic cancer. Among our radiation therapists, Elizabeth Brown and Phoebe Shorter continue to progress their PhD courses with a number of research presentations and papers. Several other radiation therapists have an interest in collaborative research which should translate into useful projects.

Dr John Shakeshaft was appointed as our Director of Therapeutic Physics late in 2013. He comes with a strong research focus and will be actively promoting research among medical physicists.

As a Department we look forward to being one of the most research-active in 2014.

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. Closed to accrual; multiple publications.

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; awaiting publication.

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. Open to accrual.

A Phase I/II study of intralesional PV-10 followed by radiotherapy in the treatment of metastatic melanoma (Foote MC)
Open to accrual.

TROG 99.03 / ALLG NHLLOW5 (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; awaiting analysis.

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 2013.
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. 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. Awaiting analysis.

TROG 08.02 / Elderly GBM (Foote M)

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 (Harvey J)
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). 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. 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. 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. Open to accrual.

TROG 10.01 / BOLART (Lehman M)

TROG 11.03 / P-LUNG GP (Lehman M)
A randomised Phase III trial of high dose palliative radiotherapy (HDPR) 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. 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. Open to accrual.

TROG 12.01/ HPV (Porceddu S)
A randomised trial of weekly cetuximab and radiation versus weekly cisplatin and radiation in good prognosis locoregionally advanced HPV-associated oropharyngeal squamous cell cancer (OPSCC).

Other Research

Biologically guided adaptive radiotherapy treatment planning for virally mediated head and neck cancer (Brown E)
PhD project. Open to accrual.

Sensorineural hearing loss following treatment for head and neck cancer (Shorter P)
PhD project. Open to accrual.

Fellowships, Awards and Prizes

Burmeister B
• Trans Tasman Radiation Oncology Group Trial Excellence Award Award
Radiation Oncology at the Mater Centre continued with a strong focus on delivery of a high quality service. The Centre is a highly skilled team of dedicated healthcare providers offering care, education and support for patients and their families to help them understand their radiation oncology treatment.

The Centre's focus is on fostering multidisciplinary research across the radiation therapy professions. We are improving our collaborative effort and cooperation. We have maintained our significant contribution to the Australasian radiation oncology research community by our continued support of and involvement in TROG trials. Under the continued guidance of Kacy Baumann the Centre has been ably assisted by our valued research coordinators 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 scientific articles 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.

Dr Brigid Hickey
Acting Director

Research Activities

Clinical Trials

The development of a clinical decision-making framework (Hargrave C, Poulsen M, Harden F, Mengerson K, Moores M, Deegan T, McQuitty S, Gibbs A)
Prototype bayesian network developed, design of workshops and interviews to finalise network.

Analysis of CBCT using prior information-- (Moores M, Mengerson K, Harden F, Poulsen M, Cathy Hargrave, Tim Deegan)
Trying to fit Bayesian model to first patient CBCT.


Radiation Therapist Survey and Framework
Development for an Australian and New Zealand Medical Radiations Research Network (Owen R, Everitt S, Knight K, Wright C)

Adaptive RT for virally mediated Head and Neck Cancer (Brown E, Porceddu S, Harden F, Owen R, Houghton W)

Investigation of Volumetric Modulated Arc Therapy (VMAT) in gynaecological RT (Knapp P, Houghton W, Eva B, Ramsay J)

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). In follow-up phase.

TROG 03.06
A phase III study of the Timing of Intervention with Androgen Deprivation in prostate cancer patients with a rising PSA (TOAD). In follow-up phase.

TROG 07.01

TROG 07.03: RadioHum
Radiotherapy with humidification in head and neck cancer. Completed. In final data cleaning and analysis.
TROG 08.02: GBM in the Elderly

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. 2013 accrual: 2.

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. 2013 accrual closed. In follow-up phase.

TROG 08.05: Melanoma WBRT
Whole brain radiotherapy following local treatment of intracranial metastases of melanoma – a randomised phase III trial.

TROG 08.06: STARS

TROG 08.09: RTN2
A randomised trial of post-operative radiation therapy following wide excision of neurotropic melanoma of the head and neck. 2013 accrual: 1.

Merkel Cell Ph II
Efficacy study of synchronous weekly carboplatin and radiation in merkel cell carcinoma of the skin. In follow-up phase.

NZGOG 0902: OUTBACK
A Phase III trial of adjuvant chemotherapy following chemoradiation as primary treatment for locally advanced cervical cancer compared to chemoradiation alone. 2013 accrual: 3.

TROG 09.03: MP3
A phase II efficacy study of chemo-radiotherapy in pet stage II and III Merkel cell carcinoma of the skin. 2013 accrual: 3reg,2tmt; continuing Central Trial Management.

TROG 10.01 BOLART

TROG 11.01: SUPREMO
**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. 2013 Accrual: 3; continuing Central Trial Management.

**TROG 12.03: EAT**
Eating as Treatment. 2013 accrual: 8.

**PeNTAGOn**
Peer & Nurse support Trial to Assist women in Gynaecological Oncology. 2013 accrual: 6.

**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*
Stages 1 and 2 complete: surveys and interviews.

**National and International Presentations**

**Gogna K**
- ‘Phase III Bladder Study (TROG02.03): compliance, toxicity and results’, Annual Scientific Meeting of TROG, 30 Mar 2013, Wellington NZ
- ‘Split course high dose palliative pelvic radiation treatment in treatment of locally progressive hormone refractory prostate cancer’, BTS World Cancer Congress, 22-25 May 2013, Xi'an China
- ‘Phase III Bladder Study (TROG02.03): compliance, Toxicity and Results’, Annual Scientific Meeting of the RANZCR, Oct 2013, Auckland NZ
- ‘Advanced prostate cancer: evolving role of RT’, Janssen-Cilag Symposium on Advanced Prostate Cancer at the COSA Annual Scientific Meeting, 12 Nov 2013, Adelaide

**Poulsen M**
- ‘The 4 R’s: recovery, rest, resilience, revitalise’, Clinical Trials Workshop Annual Scientific Meeting of TROG, 30 Mar 2013, Wellington NZ
- ‘Merkel Cell carcinoma of skin - surgery and radiotherapy - how much of each?’, Global Controversies in Skin Cancer Conference, 21-24 Nov 2013, Brisbane

**Australian Institute of Radiology National Scientific Meeting, 8-10 Mar 2013, Hobart:**
- Job M, Owen R, Holt T, ‘Rapid response radiation therapist: an expanding role in the palliative radiation oncology service in Australia’
- Becker J, ‘Evaluation of planning competency development framework’
- Brady C, ‘Radiation therapist graduate recruitment: a practical selection method’

**International Conference on the Use of Computers in Radiation Therapy, 6-9 May 2013, Melbourne:**
- Hargrave C, Moores M, Poulsen M, Harden F, Mengersen K, ‘Constructing a clinical decision-support framework for image-guided radiotherapy using a Bayesian Network’
- Moores M, Hargrave CE, Harden FA, Mengersen KL, ‘Segmentation of cone-beam CT using a hidden Markov random field with informative priors’
The Radiology Department continued to have an ever increasing service workload and provision of support to the multi-disciplinary clinics, collaborative clinical studies with other units, research projects within the department as well as multicentre trials. While our research contribution to a large number of trials in these clinical settings is not always directly recognised, research collaborations continue to be a major focus, with Radiology registrars required to produce at least two major projects during their training.

Our research incorporates all aspects of the Department – MRI, CT, Ultrasound, Nuclear Medicine, Vascular and Interventional, Nursing Practices, as well as providing our services for clinical trials being conducted by many other departments.

Each year the number of research projects being performed by Radiology staff increases. There are numerous T1 and T2 translational studies being undertaken, with a large amount of other research underway.

Equipment purchases in 2013 included a Dual Service Siemens Somatom Flash, 3T Skyra MRI, and Full Field Digital Mammography.

Various awards, prizes and funding were received by the Department’s Radiologists and Radiographers in 2013, with many lectures and presentations given over the year. Journal articles published, as a result of the research performed, were prolific.

Dr Susanne Jeavons
Director Division of Diagnostic Radiology

Research Activities

Clinical Trials
Study of brown adipose tissue in humans: cellular and metabolic evaluation (Jang C, Jalapu S, Law WP, Jeavons SJ, Ho KKY)
Ongoing project which commenced in Oct 2011 with specific aims of: (a) optimising methods for detection and assessment of brown adipose tissue (BAT) activity in humans, (b) identifying factors regulating brown adipogenesis and activity, (c) determining the contribution of BAT to whole body energy metabolism.

F18-florbetaben positron emission tomography for the in-vivo detection of cardiac amyloidosis (Law WP, Ng ACT, Wang W, Mollee P)
This project commenced at the end of 2013 aims to determine the feasibility of F18-labelled florbetaben (FBB) in identifying amyloidosis involving heart muscle. If F18-FBB can detect cardiac amyloidosis, the project will subsequently determine the diagnostic accuracy of FBB PET in comparison with MRI and echocardiography, and aim to optimise PET techniques for imaging cardiac amyloidosis using FBB.

Defining the presence and anatomical extent of large nerve perineural spread on a 3T magnet (Gandhi M)

The accuracy of MRI imaging at determining mandibular infiltration in oral cavity squamous cell carcinomas (Gandhi M)

Can one distinguish on imaging between metastatic nodes from Skin SCCs, Upper aerodigestive tract P16 positive ScCs and P16 negative SCCs (Gandhi M)

Stump Neuromas of the skull base following surgery (Gandhi M)

High resolution T2 imaging in the depiction of lesions of the superior orbital fissure and optic canal (Gandhi M)

Tractography of the facial nerve (Gandhi M)
Other Research

Comparison of two education delivery methods of an image interpretation program for radiographers (Neep MI, Steffens TW, McPhail S)

Aims to compare the effectiveness of intensive training versus regular tutorials over 3 months, as well as explore the barriers, enablers and degree of confidence radiographers have in interpreting trauma radiographs. Two manuscripts are currently undergoing peer review process, awaiting decision following minor revision, third manuscript in write up stage.

An investigation into the use of radiographer abnormality detection systems in Queensland (Murphy A, Neep MJ)

Aims to establish the frequency of use of Radiographer Abnormality Detection Systems (RADS) in Queensland, determine the desirability of RADS and establish the need for an implementation guide. Manuscript in write-up stage.

A prospective study of language and recovery following surgery for brain tumours (Ong B)

MRI including functional MRI as well as neuropsychological assessment of patients with brain tumours and recovery following surgery.

Three-dimensional displays in diagnostic radiology and procedure planning: using aneurysm-positive cerebral CT angiograms as a model for investigating this rich display technology (Stewart N, Coucher J, Hopcraft A)

Audit of doses of multidetector computed tomography coronary angiography with correlation to patient physical parameters (Hopcraft K)

Inclination of the odontoid process in Chiari I malformation: correlation with syringomyelia (Saad N, Dehdari A)

Stereoscopic display of cross-sectional images to aid radiological diagnosis and procedure planning (Coucher J, Lock G, Hopcraft A)

Magnetic Resonance Imaging in Ankylosing Spondyloarthritis (Saad N, Ryan J)

Characterising the physiological conus uptake in F-18 FDG Positron Emission Tomography/Computed Tomography (Law P)

Investigation of diffusion weighted and perfusion MRI in the evaluation of soft tissue tumour response to therapy (Lloyd T, Watkins T)

Quality assurance of computed tomography (CT) texture analysis in non-small cell lung cancer using dual energy CT (Cormican A, Miles K, Coucher J)

The accuracy of MRI in mandibular invasion with SCC (Gandhi M, Sommerville J)

Positron Emission Tomography with Florbetaben for in-vivo detection of cardiac amyloidosis: a prospective cohort study (Law P, Ng A)

Radiation protection methods for the interventionalist’s hands: the use of an extension tube (Dixon S, Schick D, Harper J)

Radiologists may use extension tubing during interventional fluoroscopic cases to increase their distance from the primary x-ray beam and scatter source. This study investigates dose reduction benefits from this practice.

Automated submission of computed tomography (CT) dose information (Schick D, Pratap J, Edwards S, Coucher J)

CT radiation exposure is potentially carcinogenic and risk is proportional to dose. Collation and processing of patient dose information (for protocol optimisation) is generally time consuming and laborious. This Department of Health and Aging funded project produced an automated data collection system using a combination of freeware and in house developed software.

Fellowships, Awards and Prizes

Kyle S
- MGF Donnan Prize (Best Candidate in Pathology in Part 2 Radiology Examination)

Pereira N
- HR Sear Prize (Most Successful Candidate in Part 2 Radiology Examination)

Murphy A
- Australian Institute of Radiography Queensland Branch Travelling Scholarship for Best Research Paper by a Graduate Radiographer

Neep M
- Editor’s Choice Award, ‘Radiography’ Journal (UK)
National and International Presentations

Figar S, Pratap J, Howard M, Coucher J

Gandh M
- Invited speaker, ‘The ENT surgeon and the radiologist’, National Medical Imaging Nurses Association Conference, 19 May 2013, Gold Coast
- Invited Speaker, ‘Thyroid nodules – seeing the tree in the woods’, Royal Australian and New Zealand College of Radiologists QLD Branch Annual Scientific Meeting, 8 June 2013, Gold Coast
- Invited workshop presenter, ‘Thyroid ultrasound’, 5th Multidisciplinary Update on Thyroid and Parathyroid Surgery, 16 Nov 2013, Noosa
- Invited speaker, ‘Large nerve perineural spread - a radiologist’s perspective’, Global Controversies in Skin Cancer Conference, 23 Nov 2013, Brisbane

Liiv T
- Invited speaker, ANZSNM Mentor Workshop, 43rd Annual Meeting of the Australian & New Zealand Society of Nuclear Medicine, 13-15 Apr 2013, Perth

Miles K, Ganeshan B, Groves A
- ‘CT texture analysis: a prognostic biomarker for patients with colorectal cancer’, Royal Australian and New Zealand College of Radiologists, 17-20 Oct 2013, Auckland NZ

Neep M
- Invited Speaker, Radiographer Commenting Workshop - A Risk Management Strategy (RADCOM), 10th Annual Scientific Meeting of Medical Imaging and Radiation Therapy. 8-10 March, Hobart, Tasmania.

Schick D
- ‘Applying noise reduction characteristics of Siemens Stellar CT detector to dose optimisation’, Engineering and Physical Sciences in Medicine Conference, 3-7 Nov 2013, Perth

Stewart N, Lock G, Hopcraft A, Kanesarajah J, Coucher J
- ‘Three dimensional stereoscopic viewing in diagnostic radiology: does the use of stereoscopic volume rendered CT angiograms in the assessment of cerebral aneurysms lead to more accurate characterisation compared to traditional monoscopic viewing?’, Royal Australian and New Zealand College of Radiologists, 17-20 Oct 2013, Auckland NZ
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.

Respiratory and Sleep Medicine is a busy department providing clinical services in COPD, asthma, lung cancer, respiratory failure, pleural diseases, tuberculosis, interstitial lung diseases and pulmonary hypertension. The Department has excellent databases that allow regular audits of clinical outcomes in sleep medicine, non-invasive ventilation for respiratory failure and lung cancer. It is hoped that these databases will provide a platform for further clinical research in the coming years.

Associate Professor Craig Hukins
Director

Research Activities

Clinical Trials

A randomised controlled trial of dupilumab (anti-interleukin 4 receptor) in severe asthma *(Upham J)*
Industry funded.

A randomised controlled trial of lebrikizumab (anti-interleukin 13 receptor) in severe asthma *(Upham J)*
Industry funded.

A randomised controlled trial of glycopyrronium bromide in COPD *(Upham J)*
Industry funded.

Other Research

Clinical factors associated with outcome in patients admitted to a respiratory high dependency unit with hypoxemic respiratory failure *(Wong M, Murphy M, Upham J)*
Industry funded.
Head and Neck Cancer and Acquired Brain Injury continued to be the major research themes for the Speech Pathology Department in 2013. Staff members also continued their active involvement in a variety of multidisciplinary research projects spanning across the hospital.

In 2013 there was an increase in research activity with 24 projects being undertaken and involving most of the senior, advanced and consultant clinicians across the Department’s main clinical areas.

The Department as a whole continued to strengthen its strong research ties with the Centre for Functioning and Health Research, the Metro South Health Practitioner Research Collaborative, and The University of Queensland. These strong ties were evident in the award of a NHMRC partnerships grant and a NHMRC project grant in the area of aphasia rehabilitation through The University of Queensland with members of the PAH Speech Pathology Department as associate investigators. An additional highlight for 2013, was the award of a PAH Research Foundation Postgraduate Scholarship to Ms Ashley Cameron to pursue her postdoctoral research studies.

Wendy McCallum
Director

Research - key to health

Research Activities

Clinical Trials

**Improving communication between health practitioners, students and patients with Aphasia** (Finch E, Lethlean J, Fleming J, McPhail S, Brown K, Cameron A)

To investigate the effects of introducing a communication partner training program on communication between people with aphasia, health professionals and health professional students. Awarded a National Stroke Foundation project grant for 2013 for investigating the effectiveness of administering the training program remotely over the internet. Ashley Cameron, the research assistant on the project, commenced doctoral studies in the area and was awarded a PA Research Foundation Postgraduate Scholarship to further research in the area.

**Can a computerised home therapy program provide an effective and cost-efficient model for delivering intensive swallowing therapy?** An RCT of an innovative service model for patients with head and neck cancer undergoing (chemo)radiotherapy (Cartmill B, Ward EC, Hill AJ, Wall LR, Porceddu S, Isenring E)

Pilot funding awarded through PAH Private Practice Trust Fund.


This project aims to evaluate the clinical validity of two screening tools (ScreenIT and ScreenIT Carer) for identifying patients and carers who require swallowing, nutritional and/or emotional supportive care intervention during (chemo)radiotherapy for head and neck cancer. Full project funding has been awarded through the Cancer Council Queensland and baseline data collection has commenced.

**LIFT: Can a new, intensive model of aphasia rehabilitation achieve better outcomes than usual care?** (Worrall L, Copland D, Lawrie M, Ward E, Khan A, Veerman J, Pattie M, O’Connor D and Associate investigators from Queensland Health including Clark K and Lethlean J from the Princess Alexandra Hospital)

This project received a NHMRC partnership grant in 2013 (to commence in 2014) between the University of Queensland and multiple Queensland Health facilities to determine the effectiveness of a new model of care for aphasia rehabilitation compared to usual care.
Development of an intervention package to help stroke patients live successfully with aphasia (ASK program) (Grohn B, Brown K, Worrall L, Finch E, Simmons-Mackie N, Clark K, Lethlean J)
This project designed and evaluated the effects of an early intervention program to help individuals live successfully with aphasia. The pilot study, conducted in 2013, was funded by a National Stroke Foundation project grant. At the end of 2013, the project was awarded an NHMRC project grant to investigate the program as a multisite trial.

Other Research
The effects of thrombolysis following ischaemic stroke on communication and swallowing outcomes (Finch E, Clark K, Hayward K)
This pilot study investigated the communication and swallowing outcomes of patients who receive thrombolysis for acute ischaemic stroke. Data collection was finalised in 2013 and two papers based on the study were accepted for publication. The pilot data will be used for larger studies in the area over coming years.

A Phase II trial of a novel intervention for social language use impairments following traumatic brain injury (Finch E, Fleming J, Copley A, Doig E, Cornwell P, Gustafsson L)
This study aims to evaluate the effectiveness of a novel goal-based intervention for enhancing the social language skills of adults with traumatic brain injury (TBI). The project was awarded a PA research support scheme small project grant for 2013. Data collection for this study is continuing with the aim of publishing 2 papers in the area in 2014.

Mealtime and communication difficulties following head and neck cancer: using the ICF to identify the rehabilitation needs for patients and carers (Nund R, Ward EC, Scarinci N, Cartmill B, Kuipers P, Porceddu S)
This project aims to examine the patient and carer perspective of mealtime difficulties following curative treatment for head and neck cancer using qualitative methodology. Data collection has been completed, one paper published, two papers in press, two manuscripts in preparation.

A 10 year review of speech pathology services and swallowing outcomes in head and neck cancer patients receiving (chemo)radiotherapy (Cartmill B, Ward EC, Porceddu S)
This project aims to assess swallowing function, access to supportive care services and desire for supportive care services at 2, 5 and 10 years post-treatment for head and neck cancer. Funding has been awarded through Speech Pathology Australia and data collection is underway.

Fellowships, Awards and Prizes
Cameron A
- PAH Research Foundation Postgraduate Scholarship (2014 – 2016)

National and International Presentations
Australia and New Zealand Head and Neck Cancer Society Annual Scientific Meeting, 14-16 Aug 2013, Melbourne:
- Wall LR, Ward EC, Cartmill B, Hill AJ, ‘Physiological changes to the swallowing mechanism following (chemo)radiotherapy for head and neck cancer: a systematic review’

Speech Pathology Australia National Conference, 23-26 June 2013, Gold Coast:
- Budden C, ‘Multidisciplinary early intervention with low level brain injury: is it feasible and what are the benefits?’
- Coffey M, Budden C, ‘Getting your “House Mate” to take you seriously: customising “House Mate” software for a patient with dysphonia post cervical spinal cord injury’
- Finch E, Cornwell P, Nalder E, Ward EC, ‘Identifying the factors that determine research engagement by speech pathologists’
- Hill A, Finch E, ‘A survey of computer use by people with aphasia’
- Johnson A, ‘Insertion of the Provox Vega Voice Prosthesis at the Time of Surgery’
- Lawson N & Davis J on behalf of the QLD FEES Working Party, ‘Continuing the state-wide approach to FEES services in Queensland: standardising documentation & practice’
- Lawson N, Langmore SE, Krisciunas GP, ‘Dysphagia therapy in Australian head and neck cancer patients: examining current practice’

• Park S, Theodoros D, Cardell L, Finch E, ‘The principles of motor learning and neuroplasticity in the development of an effective speech treatment for dysarthria’

• Watter K, Finch E, Addis P, ‘Identifying speech pathology clinical practice in brain injury rehabilitation units’

Cartmill B

• ‘Pre-treatment education, using technology to improve services, and dose volume histograms: what’s new in head and neck cancer management in Queensland’, Head and Neck Cancer Special Interest Group, Oct 2013, Melbourne

Lawson N, Langmore SE, Krisciunas GP, Sokoloff W

• ‘Comparing Australian dysphagia therapy practices with head and neck cancer patients against international practices’, Dysphagia Research Society Meeting, 13–16 Mar 2013, Washington USA


• ‘Patients’ perspectives of dysphagia in the survivorship phase of head and neck cancer’, Inaugural Flinders Centre for Innovation in Cancer Survivorship Conference, 1-3 Feb 2013, Adelaide

• ‘Survivors’ experiences of dysphagia-related services following head and neck cancer: implications for clinical practice’, Australian and New Zealand Head and Neck Cancer Society Annual Scientific Meeting, 29-31 Aug 2013, Melbourne

• American Speech and Hearing Association Annual Convention, 14-16 Nov 2013, Chicago USA
  – ‘Application of the ICF to people with dysphagia following head and neck cancer treatment’
  – ‘Dysphagia following head an neck cancer management: the caregivers’ perspective’


• ‘A survey of the voice prosthesis management practices of speech pathologists in Australia’, Australian and New Zealand Head & Neck Cancer Society 15th Annual Scientific Meeting, 29-31 Aug 2013, Melbourne
In 2013 the Therapeutics Research Centre completed a PA Research Foundation grant on regional melanoma treatment and the first year of two three-year NHMRC project grants. We also prepared for the commencement of a new five-year NHMRC Program grant in 2014. These highly sought-after research funds will continue to support our present group of talented young postdoctoral scientists in their efforts to become independent investigators.

January 2013 saw us move into the impressive new research facilities in the Translational Research Institute. I look forward to the new collaborations arising out of increased contact with a wide range of researchers.

Student successes in 2013 included the award of PhDs to David Liu and Yousuf Mohammed, while Camilla Thompson, Adnan Mahmood and Klintean Wunnapuk reached the last steps before the award of their degrees. At the end of 2013 we welcomed Dr Annie Zhu, a newly graduated postdoctoral fellow with experience in nanotechnology, to work on an ARC discovery grant on the penetration of nanoparticles in the skin. She will commence a full-time contract in 2014. Congratulations go to Dr Jeff Grice, our Academic Manager, who was promoted to Senior Research Fellow (Level C).

During the year we continued to consolidate our overlapping interests in therapeutics, toxicology and nanotechnology, with a steady output of publications and a number of invitations to speak at major international conferences. 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

Specific targeting of nanosystems by cutaneous delivery (Roberts MS, Kendall M)
Our overall goal is to understand the physicochemical characteristics of selected non-invasive nanosystems that enable their specific targeting and adequate response by cutaneous delivery as well as their toxicity. To date: 15 publications.

Advanced imaging to define hepatic and intestinal drug disposition in aging and liver diseases (Roberts MS, Crawford D, Madden G)
A major challenge: to more precisely define individual patient’s ability to metabolise medicines and provide them with most appropriate drugs and doses, i.e. personalised medicine. To date: three publications.

Robust antibiotic dosing for critically ill patients receiving renal replacement therapy (Roberts J, Lipman L, Paul S, Peake S, Turnidge J, Roberts MS)
The aim of this study is to develop optimised antibiotic dosing guidelines for ICU patients with life-threatening infections that account for patient characteristics and the type of RRT they are prescribed. This study has commenced site initiation via web-conferencing. This is a multinational study encompassing nearly 40 sites. So far, 7 patients have been recruited.

Biomarkers of acute renal toxicity in humans (Buckley N, Endre Z, Dawson A, Sheriff R, Isbister G, Roberts MS)
Aims to establish in humans: 1. the time-course of the changes in these biomarkers in a range of toxic acute kidney injuries; 2. whether acute toxic kidney injury leads to long-term kidney damage; 3. whether new renal biomarkers detect toxic renal injury earlier and more accurately than conventional tests and which particular tests or combinations are best; 4. whether different pathophysiological injuries lead to distinct patterns of biomarkers. To date: five publications; eight congress abstracts.

Targeted redox therapy for photoageing prevention and treatment (Prow T, Roberts MS)
UV radiation can cause skin ageing (photoageing) and DNA damage, leading to skin cancer. This project aims to quantify skin photoageing due to UV exposure and test the efficacy of targeted redox therapies as a potential treatment option and preventative measure. To date: five publications.
Skin penetration of nanoparticles promoted by particle design, formulation and application method (Xu ZP, Zvyagin A, Roberts MS)
This project aims to investigate human skin penetration of surface-modified inorganic nanoparticles (NPs) with a smallest dimension of 2-20 nm promoted by suitable formulation and topical application. Eight publications in 2013.

Regional chemotherapeutic treatment by topical and direct administration of fluorescent anti-melanoma agents (Grice J, Roberts MS)
Overall goals are: 1) use topically applied fluorescent dyes to differentially stain lesional tissue, with the aim of early detection of very early stage tumours; and 2) attempt to develop an effective regional chemotherapeutic treatment against melanoma by topical application of fluorescent anti-melanoma agents.

Roberts M, Invited lecturer:
- ‘In vivo multiphoton imaging to define the disposition and safety of medicines and nanotechnologies’, Physicists and Biologists Working Together – Frontiers of Light Microscopy, LaTrobe Institute for Molecular Science and Bio21 Institute, 18-19 Nov 2013, Parkville VIC
- ‘Non-invasive intravital multiphoton imaging of the transport of solutes and nanoparticles’, 8th Workshop on Advanced Multiphoton and Fluorescence Lifetime Imaging Techniques FLIM 2013, 1-2 July 2013, Saarbrücken Germany
- ‘Imaging nanoparticle and solute penetration into the skin’, 2nd International IVM Symposium, 27-29 May 2013, Helsinki Finland
- ‘In and ex vivo imaging of transport processes in rat and human tissue’, 10th Advanced Imaging Methods Workshop, 30 Jan–1 Feb 2013, San Francisco USA

Fellowships, Awards and Prizes
Roberts M
- Continuing Research Fellowship (2011-2015)

National and International Presentations
Grice JE
- Invited speaker, ‘Application of topical products for targeted skin responses’, 21st COLAMIQC, a technical event conducted by Brazilian Society of Cosmetology/ABC 14-16 May 2013, São Paulo Brazil

Liang X
- ‘Intravital multiphoton imaging of water dispersible CdTe/CdS quantum dots in rat liver: comparison with cationic and anionic dyes’, Australasian Pharmaceutical Science Association Conference, 8-11 Dec 2013, Dunedin NZ
The Trauma Research Group of the Princess Alexandra Hospital Trauma Service 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.

In 2013 the Trauma Research Group welcomed new Adjunct Professor Mr Robert Frigg, saw one student complete their PhD and one student complete their Masters.

Ten journal articles and one book were published and six abstracts were selected for presentation at various international conferences.

The Trauma Research Group was awarded several research grants including NHMRC, TRADIM and the AushSI Stimulus Grant.

In 2013 Professor Michael Schuetz became the Appointed Leader for the Diamantina Health Partners Integrated Trauma & Recovery Theme, as well as joining the Australian Orthopaedic Association’s Grants Review Committee. The Translational Research Institute hosted the first Diamantina Health Partners Integrated Trauma & Recovery Workshop in November 2013 and the Princess Alexandra Hospital became a designated Level 1 AOFoundation Clinical Study Centre.
Upper Gastro-intestinal and Soft Tissue Unit

The Upper GI Research Unit sits is part of the Princess Alexandra Hospital Upper Gastro-intestinal and Soft Tissue Unit within the PAH Division of Surgery. The Unit, treating patients with oesophagogastric disease, both malignant and benign, is the largest referral base for oesophagogastric cancer in Australia and has a national and international reputation for research and clinical outcomes.

There is a strong collaboration between the Medical and Radiation Oncology groups at the Princess Alexandra Hospital. The Upper GI Research Unit participates in a number of local, national and international clinical trials, many of which have been investigator initiated by members of our Unit.

The University of Queensland Surgical Oncology Unit, led by Associate Professor Andrew Barbour, 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.

In 2013 the Unit participated in the Worldwide Esophageal Cancer Collaboration which is updating the AJCC staging for oesophageal cancer. The aim of this study is to that overcome problems of rarity of this cancer by assembling a large multi-institutional international database of esophageal cancer patients, patient and tumor characteristics, and survival of patients undergoing esophagectomy alone and its correlates.

Associate Professor B Mark Smithers
Director

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 ± radiotherapy based on poor early response to standard chemotherapy for resectable adenocarcinoma of the oesophagus and/or OG junction (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 N)
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.
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 over 700 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 over 130 patients diagnosed with HGD.

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 over 5,000 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 850 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 600 patients with quality of life measures in over 85% of patients.

Fellowships, Awards and Prizes

Barbour A
• James IV Travelling Fellowship

Smithers M
• External examiner, Final Year Surgery Examinations, Medical School, Chinese University of Hong Kong (Chairperson)
• External examiner, Medical Licencing Examinations, Hong Kong

National and International Presentations

Barbour A
• Invited speaker, ‘How useful is tumour analysis?’ OESO 12th World Conference, 27-30 Aug 2013, Paris France
• Invited speaker, Australia & New Zealand Gastric & Oesophageal Surgeons Association, 2013, Perth
• Invited speaker, ‘Molecular fingerprints: where are we now?’, Gastroenterological Society of Australia Annual Scientific Meeting, 7-10 Oct 2013, Melbourne

Smithers M
• Invited speaker, ‘Choosing a being a good mentor’, Developing Career in Academic Surgery (DCAS) Course, May 2013, Auckland NZ
• Invited speaker, ‘What not to do in research’, Australian Medical Association, Research Information Evening, July 2013, Brisbane
• Invited speaker, ‘Choosing a mentor’, Griffith University Surgical Interest Students (Surgia), Mentor Evening, Aug 2013, Southport
• Speaker, ‘The volume–outcome relationship in cancer surgery – do rural patients have a choice?’ and Symposium, ‘Outcomes versus access - who is most vulnerable?’, Clinical Oncology Society of Australia Annual Scientific Meeting, Nov 2013, Adelaide
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 2013 we welcomed our latest PhD candidate Dr Keng Lim Ng who is working in collaboration with the Centre for Kidney Disease Research to improve characterisation of renal tumors. We have established a new tissue bank to support this work.

The Department continues to provide the lead clinical service in the state for advanced renal and testicular cancer particularly in nephron sparing surgery, vena caval resection and replacement and retroperitoneal lymph node dissection.

Research activities in andrology and prosthetic surgery have continued under the guidance of Dr Eric Chung who was appointed chair of andrology for the Urological Society of Australia and New Zealand.

Research activities with the APCRC-Q, the Centre for Kidney Disease Research and the Cancer Epidemiology group at the Queensland Institute of Medical Research have continued and a number of new clinical trials in advanced prostate cancer and renal cell carcinoma have commenced.

Dr Simon Wood  
Head of Department

**Research Activities**

**Clinical Trials**

Randomised double-blind, Phase 3 efficacy trial of Prostvac-V/F +/- GM-CSF in men with asymptomatic or minimally symptomatic metastatic castrate-resistant prostate cancer (Wood S, Oleinikova I, Ng K)  
Multi-centre study sponsored by BN ImmunoTherapeutics.

A randomised, double-blind, placebo-controlled, multicentre Phase 3 study of Denosumab on prolonging bone metastasis-free survival in men with hormone-refractory prostate cancer (Wood S, Oleinikova I)

Astellas BESIDE 905 EC-012: A randomized, double-blind, multi-centre study to evaluate the efficacy and safety of adding Mirabegron to Solifenacin in incontinent OAB subjects who have received solifenacin for 4 weeks and warrant additional relief for their OAB symptoms (Chung E, Oleinikova I)

A single arm prospective study on the efficacy, safety and feasibility of low intensity shock wave lithotripsy (LiESWT) in the treatment of erectile dysfunction and Peyronie’s disease (Chung E)

**Other Research**

Investigation of novel biomarkers to aid in the differentiation of renal tumours, especially renal oncocytomas from chromophobe renal cell carcinomas (PhD candidate: Keng Lim Ng)


Analysis of biomarkers from circulating tumor cells and exosomes to monitor prostate cancer progression and treatment resistance

The role of Y-box binding protein 1 (YBX-1) in locally advanced and metastatic prostate cancer (PhD candidate Dr Morgan Pokorny)

Genitourinary injury, urinary and sexual dysfunctions following adult pelvic trauma: clinical outcomes, healthcare advocacy and guideline implementation in Princess Alexandra Hospital and wider Brisbane metropolitan hospitals (Chung E)
PUBLICATIONS,
MAJOR GRANTS
& PEOPLE
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Research - key to health


Centres for Health Research 2013 Annual Research Report


Bray LJ, Heazlewood CF, Munster DJ, Hutmacher DW, Atkinson K, Harkin DG. Immunosuppressive properties of mesenchymal stromal cell cultures derived from the limbus of human and rabbit corneas. Cytotherapy. Epub 2013/10/08.


Chung E, Solomon M, DeYoung L, Chung E, Cartmill R. Diagnostic challenges in the evaluation of persistent or recurrent urinary incontinence after artificial urinary sphincter (AUS) implantation in patients after prostatectomy. BJU international. 2013 Nov;112 Suppl 2:32-5.


Research - key to health


Fonseca R, Marwick TH. Appropriateness and outcomes: is it time to adopt appropriate use criteria outside of North America? Heart (British Cardiac Society). Epub 2013/12/25.


Johnson DW, Atai E, Chan M, Phoon RK, Scott C, Toussaint ND, et al. KHA-CARI guideline: Early chronic kidney disease: detection, prevention and


Kallenbach K, Sundt TM, Marwick TH. Aortic surgery for ascending aortic aneurysms under 5.0 cm in diameter in the presence of bicuspid aortic valve. JACC Cardiovascular imaging. 2013 Dec;6(12):1321-6.


Kostner KM, Marz W, Kostner GM. When should we measure lipoprotein (a)? European heart journal. 2013 Nov;34(42):3268-76.


Marshall AP, West SH, Aitken LM. Clinical credibility and trustworthiness are key characteristics used to identify colleagues from whom to seek information. J Clin Nurs. 2013 May;22(9-10):1424-33.


Nikolic SB, Abhayaratna WP, Leano R, Stowasser M, Sharram JE. Waiting a few extra minutes before measuring blood pressure has potentially important clinical and research ramifications. J Hum Hypertens. Epub 2013/05/31.


Research - key to health


Seicean S, Seicean A, Alan N, Plana JC, Budd GT, Marwick TH. Cardioprotective effect of beta-adenreceptor blockade in patients with breast cancer


Thavendiranathan P, Grant AD, Negishi T, Plana JC, Popovic ZB, Marwick TH. Reproducibility of echocardiographic techniques for sequential assessment of left ventricular ejection fraction and volumes: application to patients undergoing cancer chemotherapy. Journal of the American College of Cardiology. 2013 Jan 8;61(1):77-84.


Travers C, Lie D. Dementia education for all. Australian Journal of Dementia Care, 2(6), pp. 28-30


Research - key to health


- Wojcikowski K, Gobe G. Animal studies on medicinal herbs: predictability, dose conversion and potential value. Phytotherapy research: PTR. Epub 2013/04/05.


Collier J. 2013. Accreditation, specialist training and recognition in Australasia.


Chapter in Wrist and Elbow Arthroscopy (2nd Ed.). Geissler W (Ed).


Kidney Health Australia – Caring for Australasians with Renal Impairment (KHA-CARI) Guidelines (2013 Update)

Atai E, Johnson DW:
- Education strategies

Chan M, Johnson DW:
- Modification of lifestyle and nutrition interventions for management of early chronic kidney disease
- Multidisciplinary or multifaceted renal care in early chronic kidney disease
- Vitamin D therapy (supplementation) in early chronic kidney disease

Johnson DW:
- When to refer for specialist renal care
- Diagnosis, classification and staging of chronic kidney disease
- Pregnancy and early chronic kidney disease
- Risk factors for kidney disease

Phoon R, Johnson DW:
- Medical therapies to reduce chronic kidney disease progression and cardiovascular risk:
  - anti-hypertensive agents
  - anti-platelet therapy
  - glycaemic control
  - lipid lowering therapy
  - uric acid-lowering agents

Turner G, Wiggins K, Johnson DW:
- Primary prevention of chronic kidney disease: blood pressure targets
- Primary prevention of chronic kidney disease: managing diabetes mellitus to reduce the risk of progression to CKD

Wiggins K, Johnson DW:
- Primary prevention of chronic kidney disease: modification of lifestyle factors
- Symptoms, natural history and outcomes of early chronic kidney disease.

## Major Grants

### Princess Alexandra Research Support Scheme (PARSS)

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<th>Grant Type</th>
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<td>Project</td>
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<td>Project</td>
<td>Project Grant, Regional chemotherapeutic treatment by topical and direct administration of fluorescent anti-melanoma agents (Grice J)</td>
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<td>Near-Miss NHMRC</td>
<td>Near-Miss NHMRC Grant, A simple liver-targeted testosterone treatment for sarcopaenia (Ho K)</td>
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<td>PAH Clinical Fellowship</td>
<td>PAH Clinical Fellowship, Quantifying the net benefit of early revascularisation strategy in ST elevation myocardial infarct patients by cardiac Magnetic resonance imaging (Indrajith M)</td>
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<td>PAH Clinical Fellowship</td>
<td>PAH Clinical Fellowship, Factors enhancing production of human Brown Adipose Tissue (BAT) and its role in the treatment of obesity (Jalapu S)</td>
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<td>Early Career Clinical Fellowship</td>
<td>Early Career Clinical Fellowship, Effect of body size on chemotherapy dose and blood concentrations in cancer (Martin J)</td>
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<td>Project</td>
<td>Project Grant, Aortic valve reconstructive surgery: Role of multimodality cardiac imaging in pre-operative planning and long-term success – A multidisciplinary collaborative study (Ng A)</td>
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<td>Project</td>
<td>Project Grant, Targeting the Wnt Pathway: Implications for Chronic Liver Disease (Powell EE)</td>
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<td>New Appointment</td>
<td>New Appointment Grant, Diabetic Cardiomyopathy: Predictors of Progression and Outcome after 10 years of follow up (Stanton T)</td>
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<td>Near-Miss NHMRC</td>
<td>Near-Miss NHMRC Grant, Genetic basis of primary aldosteronism as a potentially curable form of hypertension (Stowasser M)</td>
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<td>Near-Miss NHMRC</td>
<td>Near-Miss NHMRC Grant, Anti-microbial immunity in poorly controlled asthma: relationships to inflammatory phenotypes and clinical outcomes (Upham J)</td>
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<td>Project</td>
<td>Project Grant, Assessment of the burden and consequences of interruptions in health care to workflow and patient outcomes(Venkatesh V)</td>
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### ARC/ARC Discovery

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<td>Linkage</td>
<td>Linkage Project, Improving the physical and oral health of people with severe mental illness: using Normalisation Process Theory to support new practices (Kendall E, Kisely S, Ehrlich C, Crowe E, Crompton D, Armstrong K)</td>
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<tr>
<td>Project</td>
<td>Image-guided skin microbiopsy technology development (Prow T, Soyer HP)</td>
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<td>Project</td>
<td>Skin penetration of nanoparticles promoted by particle design, formulation and application method (Xu ZP, Zvyagin A, Roberts MS)</td>
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<td>Project</td>
<td>A novel Src regulated protease activated signalling pathway in hematogenous metastasis (Hooper JD, Lopez-Otin C, Quigley JP, Hill M, Gobe G)</td>
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<td>Understanding the relationship between mental illness and offending: implications for crime prevention and the management of mentally ill offenders (Stewart A, Allard T, Dennison S, Kisely S)</td>
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### Cancer Council Queensland

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<td>Project</td>
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<td>Project</td>
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<td>Understanding the relationship between mental illness and offending: implications for crime prevention and the management of mentally ill offenders (Stewart A, Allard T, Dennison S, Kisely S)</td>
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### National Health and Medical Research Council (NHMRC)

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<td>Grant</td>
<td>Early origins, progression and aetiology of obesity, metabolic syndrome and diabetes: a 30 years follow-up study (McIntyre D, Mamun A)</td>
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<tr>
<td>Grant</td>
<td>Early origins, progression and aetiology of obesity, metabolic syndrome and diabetes: a 30 years follow-up study (McIntyre D, Mamun A)</td>
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$957,987 Whole genome analyses of oesophageal adenocarcinoma (Barbour A, Waddell, Krause, Nancarrow, Hussey, Watson, Lord)


$828,717 A randomized controlled trial of probiotics to prevent gestational diabetes (McIntyre D, Callaway L)

$800,000 ADRENAL trial (Intensive Care Unit)

$791,991 DOCetaxel with or without radiation Therapy for resectable Oesophageal adenocarcinoma based on early PET Response to induction chemotherapy (DOCTOR) (Barbour A)

$714,000 Comparison of pre and perioperative immunonutrition in patients undergoing surgical resection of oesophageal cancer (Jamieson GG, Watson Di, Smithers BM, Iserring EA)

$536,323 The SIGNAL Trial: Steroids in ImmunoGlobulin A Nephropathy: Assessment of long term outcomes (Perkovic, Cass A, Johnson DW, Jha V)

$535,206 Effects of nevogenesis susceptibility genes and phenotype correlation with dermoscopic characteristics of nevi (Soyer P, Sturm R, Duffy D, Smithers B)

$500,000 Centre for Research Excellence in Psychosocial Traumatic Brain Injury Rehabilitation (McDonald S, Anderson V, Ponsford J, Tate R, Togher L, Morgan A, Fleming J, Ownsworth T, Douglas J)


$462,607 Robust antibiotic dosing for critically ill patients receiving renal replacement therapy (Roberts J, Lipman L, Paul S, Peake S, Turmidge J, Roberts MS)

$410,973 PROBE-NET: The Progression of BARRETT’S Esophagus to Cancer Network (Whitenaen, Barbour A)

$401,645 CRE in Improving Quality and Safety at the interface between primary and secondary level care (Jackson C, Mitchell G, Askew D, Scott I, Foster M, Dart J, Hollingworth S, Davies P, Russell A)

$400,000 Australian Prostate Cancer BioResource Enabling Grant (Clements J, Risbridger G, Tilley W, Suther(land R)

$400,000 Safety of Hendra virus anti-G glycoprotein monoclonal antibody in humans (Playford EG, Middleton D, Gray P, Mahler S, Munro T, Broder C)

$400,000 The Australasian Kidneys Trials Network Enabling Grant (Hawley C, Johnson DW)

$391,987 Personalising care in operable pancreas cancer. A study of imaging and molecular biomarkers to guide treatment of patients receiving preoperative chemotherapy followed by surgery (Barbour A)


$328,004 Biomarkers of acute renal toxicity in humans (Buckley N, Endre Z, Dawson A, Serriff R, Ibsiger G, Roberts MS)

$318,692 Specific targeting of nanosystems by cutaneous delivery (Roberts MS, Kendall M)


$305,000 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 SG, Hatton AL, Hennig E)

$304,810 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 SG, Hatton AL, Hennig E)

$300,000 Telehealth for Residential Aged Care Facilities: a pragmatic randomised controlled trial (Gray LC, Martin-Khan C, Beattie E, Edirippulige E, Russell T, Smith A, Theodoros D, Scott IA, Hubbard R)


$276,344 Modelling The Cost-Effectiveness Of Therapeutic Strategies For Invasive Candidiasis Among The ICU Population (Graves N, Sorrell TC, Playford EG, Barnett A)

$250,000 Improving quality and safety of integrated care in primary-secondary care interface (Jackson C, Scott IA, Mitchell GA, Askew D, Foster M, Dart J)

$245,273 Advanced imaging to define hepatic and intestinal drug disposition in aging and liver diseases (Roberts MS, Crawford D, Madden G)

$217,546 Telehealth in Residential Aged Care: a Pragmatic Randomised Control Trial (Gray LC, Martin-Khan MG, Beattie E, Edirippulige SK, Russell TG, Smith, AC, Theodoros D, Scott I, Hubbard RE)

$201,344 In-depth association & functional studies assessing the role of novel single nucleotide polymorphisms in PSA and other Kallikrein genes in prostate cancer (Clements J, Batra J, A Spurdle)

$197,576 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)

Research - key to health
$196,740 Identification and characterisation of a genetic signature at the 5p15 region associated with prostate cancer across ethnic groups (Batra J, Clements J, Nelson C, Lehman M)

$194,892 To identify new therapeutic target for the treatment of prostate cancer (Ling P, Quinn R, Russell P)

$194,344 Protracted bacterial bronchitis in children (Chang A, Upham J, Gibson P)

$192,661 Monocytes/macrophages in chronic liver diseases (Powell EE, Jonsson JR, Clouston AD)

$191,130 Macrophages: a therapeutic target in peritoneal dialysis-induced fibrosis? (Campbell J, Rolfe B, Johnson DW, Wei M)

$186,627 Do people with severe traumatic brain injury benefit from making errors? A clinical trial of the efficacy of error-based learning and errorless learning training (Ownsworth T, Fleming J, Tate R, Shum D)

$181,330 Targeted redox therapy for photoageing prevention and treatment (Prow T, Roberts MS)

$181,788 Simultaneous imaging and drug delivery for prostate cancer theranostics (Russell P, Whittaker A, Thurecht K)

$179,700 To study how prostate tumour metastasizes to bone (Ling P, Clements J, Nelson C, Russell P, Hutmacher D)

$173,902 Effects of nevogenesis susceptibility genes and phenotypic correlation with dermoscopic characteristics of nevi (Soyer HP, Sturm R, Duffy D, SmITHERS B)

$156,454 Anti-viral immunity in asthma: a detailed assessment of TLR7 function and the regulation of interferon synthesis (Upham JW, Bosco A, Mackay I)

$146,484 The BLOCADE feasibility study (Roberts M, Hawley CM, Merino F, Isbel N, Pilmore H, Perkovic V)

$142,470 Principal Research Fellowship. Defining the role of the PSA-related Kallikrein serine proteases in hormone dependent cancer progression (Clements J)

$140,597 Serial Nt-ProBnp Monitoring For Predicting Major Cardiovascular Events In The Dialysis Population (Johnson DW, Hawley C, Fahim M)


$112,399 The HERO trial (Johnson DW, Fassett R, Ferrari P, Pedagogos E, McDonald SP, Clark P)

$107,341 Targeted LOWering of Central Blood Pressure (CBP) in patients with hypertension: a randomised controlled trial (LOW CBP study) (Sharman J, Abhayaratna W, Stowasser M)

$104,745 NHMRC Practitioner Fellowship (Level 2) (Soyer HP)

$91,875 Plasma Exchange and Glucocorticoids in AVCA Associated Vasculitis: A Randomised Controlled Trial (PEXIVAS) (Peh CA, Jayne D, Merkel P, Walsh M, Perkovic V, Kerr P)

$91,875 Early Career Fellowship Improving physical activity outcomes for inactive patients (McPhail SM)

$87,700 Training Fellowship, Kallikrein gene variants (Batra J)

$67,859 Radiation Oncology

$61,267 Practitioner Fellowship (Powell EE)

$56,000 Confocal microscope and LCMSMS (Milne R, White J, Zhou X, Wang S, Xian C, Roberts MS)

Queensland Government and Queensland Health

$1,604,724 Department of Health NBN Enabled Telehealth Pilots Program, Comprehensive Telehealth Assisted Care (ConTAC) program (Theodoros DG, Smith A, Gray LC, Armfield, NR, Russell TG, Martin-Khan MG)

$416,524 Service Level Agreement for PAH Telehealth Centre, Princess Alexandra Hospital, Metro South Hospital and Health Service (Gray LC, Smith AC)

$314,483 Department of Health, The Development, Delivery, Promotion and Evaluation of a Clinical Telehealth Educational and Training Programs for Clinicians (Smith AC, Edirippulige S, Armfield NR, Gray LC)

$295,000 Queensland Health Strategic Partnerships. Gestational Diabetes Mellitus Project

$257,045 Service Level Agreement for Queensland Telepaediatric Service, Royal Children’s Hospital, Metro South Hospital and Health Service (Gray LC, Smith AC)

$200,000 QEMRF Project Grant, Adding insult to injury: the effect of fresh and aged blood to oxygenation, metabolism and organ function in a clinically relevant trauma/sepsis model (Staib A)

$156,677 Service level agreement with Queensland Health, Comprehensive Electronic Geriatric Assessment (CeGA) Online (Gray LC)

$150,000 Department of Health and Aging Project Grant, Diagnostic Imaging Quality Program (Schick D, Pratap J, Edwards S, Coucher I)
Darling Downs Hospital and Health Service, Queensland Health, Investigation of the Long-Term Outcomes of a Mobile Telehealth Screening Service for Aboriginal Children in Cherbourg (Smith AC, Armfield NR, Scuffham P)

QEMRF Capacity Building Grant. Capacity building in the PAH Emergency Department (Sinnott M)

Canadian Institutes of Health Research. The effects of the Queensland Flood on pregnant women, their pregnancies and their children's early development (McIntyre D, King S, Kildea S)


Industry sponsored clinical trials, Respiratory and Sleep Medicine Department

Prostate Cancer Foundation of Australia New Concept Grant, Engineering a high-throughput prostate cancer stem cell niche mimic (Doran M, Chambers K, Clements J, Russell P)


Prostate Cancer Foundation of Australia Project Grant, PSA as a therapeutic target: an integrated systems biology approach to discover the pathways initiated by PSA activity in prostate cancer progression (Clements J, Overall C, Gorman J, Hutmacher D, Nelson C)

Irene Hunt Hypertension research Trust, Hypertension – causes and diagnosis (Stowasser M, Gordon RD)

Prostate Cancer Foundation of Australia Young Investigator Grant, Targeting hyperinsulinaemia in castrate resistant prostate cancer (Gunter J)

Children's Health Foundation Queensland Young Investigator Grant, A randomized controlled trial to evaluate paediatric critical care telemedicine in Queensland (Smith AC, Coulthard M, Armfield, NR, Slater A)

Amgen unrestricted grant, The FAVOURED Trial (Hawley CM)

Queensland Skin and Cancer Foundation Inc. Donation to support the UQ Professorial Chair of Dermatology position (Soyer HP)

ALF Pauline Hall Research Fellowship (Irvine K)
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<td>$84,400</td>
<td>Movember Global Action Plan 1, Development of assays for the capture and detection of prostate cancer-derived exosomes and exosomal markers (Russell P, Nelson C, Soekmadji C)</td>
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<td>£82,240</td>
<td>NIHR Research for Patient Benefit (RfPB) Programme: PB-PG-0610-22456, A validated competitive risk model that will inform a decision aid for peritoneal dialysis patients deciding whether to switch modality to avoid developing encapsulating peritoneal sclerosis (Davies S, Lambie M, Johnson DW)</td>
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<td>$79,000</td>
<td>A MAP to better care: Applying the principles of advanced directives and motivational interviewing to discharge planning for psychiatric patients, AushSI (Kisely S, Robinson G, Wyder M, Crompton D, Siskind D, Lau G)</td>
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<td>$77,219</td>
<td>Alexion Pty Ltd A HUS registry (Isbel N, Leary D)</td>
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<td>$76,828</td>
<td>Pathology Queensland Study, Education and Research Trust Fund. The role of IL-17 in the ductular reaction and fibrosis in a murine model of chronic liver disease (Clouston A, McDonald K, Miller G, Gallivan C)</td>
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<td>$72,256</td>
<td>How well prepared is the PAH DRS to support the NCCTRC &amp; RDH in times of crisis? a critical review, funded NCCTRC Trauma and disaster Management Grant (Mitchell M, Weber S, Birgman S, Aitken L, Sykes S)</td>
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<td>$71,800</td>
<td>TRADIM, Clinical Review of Outcomes and Costs for the Treatment of Large Bone Defects in the Tibia (Reumann M, Cooke C, Simon E, Schuetz M)</td>
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<td>$65,000</td>
<td>Cancer Australia Project Grant, MP3 Study (Poulsen M)</td>
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<td>United States Department of Defense Postdoctoral Training Fellowship, Exosome biomarkers: Defining prognosis for drug- and castrate resistant prostate cancer (Soekmadji C)</td>
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<td>University of Queensland, Cancer Research Fund To identify and assess markers of prognosis, response and resistance to therapy in patients with Stage III metastatic melanoma (Smithers BM, Barbour A)</td>
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<td>University of Queensland Post-doctoral Fellowship (Haluska B)</td>
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<td>QEMRF Emergency Medicine Staff Specialist Research Grants Scheme, Developing a Quality Framework for the Care of Older Patients in the Emergency Department (Burkett E, LC, Jones R, Martin-Khan MG)</td>
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<td>Diabetes Queensland Research Grant, Enhancing cost-effective dietetic diabetes service delivery through consumer engagement (Hickman I, Russell A, Cotugno J, Stack A)</td>
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<td>Fundamental Research Grant Scheme, Deciphering the molecular mechanisms and therapeutic potential of TRAF1 and NF-κB in renal cell carcinoma (Rajandram R, Razack A, Ng KL, Morais C, Gobe G)</td>
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<td>Rome Foundation. Usefulness of Rome III symptoms, psychological characteristics and cytokines in accurately diagnosing FGIDs (Holtmann G)</td>
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Research Staff

**Acquired Brain Injury Outreach Service**
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- Karen Goddard, Social worker/Rehabilitation Coordinator
- Elissa Morriss, Occupational Therapist/Rehabilitation Coordinator
- Judith Nance, Physiotherapist/Rehabilitation Coordinator
- Judy Roser, Speech Pathologist/Rehabilitation Coordinator
- Sharon Smith, Social Worker/Rehabilitation Coordinator
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- Dr Jyotsna Batra, Postdoctoral Fellow
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**Cancer Nursing Research Group**
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**Cardiology Department**
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**Centre for Functioning and Health Research**
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**Centre for Kidney Disease Research**
- Associate Professor Glenda Gobe, Co-Director of Centre for Kidney Disease Research
- Professor David Johnson, Co-Director of Centre for Kidney Disease Research
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- Dr John Burke, Visiting Consultant Nephrologist
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- Dr Carolyn Clark, Visiting Nephrologist
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- Luke Cosgrove, Data Manager
- Dr Shyam Dheda, Renal Registrar
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Dr Robert Bird, Director, Haematology
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Research - key to health

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- Geeta Sandhu, Oncology Pharmacist
- Yolanda Scuderi, Clinical Trials Pharmacist
- Sean Unwin, Infectious Diseases Pharmacist
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- Dr Justin Baulch, Registrar
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- Dr Arash Dehdari, Registrar
- Dr Louise Doherty, Registrar
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- Hesami, Parisa
- Kruger, Peter
- Liu, David
- Mapp, Sally
- McIntyre, Deborah
- Mohammed, Yousuf
- Pasieczny, Nathan
- Pokorny, Morgan
- Pyne, John
- Siskind, Dan
- Skoien, Richard
- Thomson, Angela
- Wurzel, Danielle
- Yamada, Miko
- James Hughes
- Kho, Joanna
- Lau, Geoffrey
- Levrier, Claire
- Liang, Phyllis
- Mallett, Andrew
- Maunder, Kirsty
- McDougall, David
- McGuire, Amanda
- Ng, Michael (Keng Lim)
- Palacios, Talia
- Patterson, Freyr
- Pflugfelder, Annette
- Sarkar, Phoebe
- Seymour, Louise
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- Whybrow, Jacklyn
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- Chachay, Veronique
- Chandrasekaran, Navin
- Chikani, Viral
- Cho, Yeoungjee
- Crompton, David
- Crowe, Elizabeth
- Eacharath, Jaisy
- Ellen, Burkett
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- Fatehi, Farhad
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- Fountain, Stephanie
- Fox, Jennifer
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- Fuhrmann-Luck, Ruth
- Gadd, Victoria
- Green, Teegan
- Hale, Andy
- Hargrave, Catriona
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- Ho, Raymond
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- Kleinschmidt, Sharon
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- Krishnasamy, Rathika
- Liang, Xiaowen
- Liberio, Michelle
- Lim, Keng
- Lin, Li
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- Lo, Adam
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- Ng, Kevin
- Nund, Rebecca
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- Pokorny, Morgan
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- Rachele, Jerome
- Raj, Ashok
- Robinson, Kathy
- Rossi, Megan
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- Tufekci, Pelin
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- Varghese, Daniel
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