



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

# HEALTH SCIENCES

## UQCCR ANNUAL REPORT

University of Queensland Centre for Clinical Research

our ideas change the world

2008



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This is the first annual report for The University of Queensland's Centre for Clinical Research (UQCCR), a new \$66M facility designed to bridge the increasing gap in translational medicine between clinical service and basic research. This unique Australian facility was established to house clinicians and clinical scientists, basic scientists applying molecular techniques to clinical problems, and clinical trial coordinators and participants. It is pivotally located at Herston on what has become Australia's largest biomedical research campus, housing the 1000 bed tertiary referral Royal Brisbane & Women's Hospital (RBWH), The Royal Brisbane Children's Hospital, the 14-storey Pathology Queensland block, the Queensland Institute of Medical Research, UQ's School of Population Health, and the UQ School of Medicine, Australia's largest medical school. It is also strategically positioned to benefit translationally from basic science interactions with UQ's suite of new biomedical research institutes on the St Lucia Campus (Institute for Molecular Bioscience, Queensland Brain Institute, & the Australian Institute for Bioengineering & Nanotechnology including the Queensland node of the Australian Stem Cell Centre). Its joint 'bench to bedside' and 'bedside to bench' focus addresses a significant area of unmet need in modern health care, and will help train tomorrow's generation of clinical researchers as a national resource.

After practical completion in February, we welcomed our first seven research groups in May 2008, and they have since been joined by a further 8 groups. New staff were recruited throughout 2008, so that by year end, we were approaching half way towards our target of 300+ researchers. These did not include Prof Jonathan Chalk, whose long standing illness prevented him taking up his post in the UQCCR, and we record with sadness his death in October (for obituary, see J Clin Neuroscience 16: 513, 2009).

State of the art laboratory equipment has been installed, and core services established. The clinical floor which has the capacity to see up to 500 outpatients a day, was predictably slower to get going, given the challenges in aligning both hospital and university processes, but clinical trial work has commenced.

Staff are to be commended on their tolerance, as just as the dust was settling on the building work, construction started up again with the Northern Busway extension immediately to the east and refurbishment of the Health Sciences Building to the west. The latter proved an opportunity, allowing us to forge collaborations with decanted research groups temporarily housed in UQCCR such as the Australian e-Health Research Centre.

Despite the disruption, our researchers performed magnificently in the NHMRC round, with their 47% success rate well ahead of the national average of 26%. Prof Frank Gardiner secured a \$1.25M grant from the Cancer Council Queensland, to conduct the world's first randomised controlled trial into the new procedure of robotic laparoscopic surgery for radical prostatectomy. The 2008 publications listed herein were clearly not all done in UQCCR, indeed could not have been done in just 8 months. They do however attest to the talent of our research leaders, who embrace a broad range of disciplines from basic science, pathology and imaging through to physiotherapy, speech therapy, neurology, paediatrics and infectious disease. This is a tremendous platform on which to build as we look forward with excitement to our first full year in 2009.

Nicholas M Fisk

Director

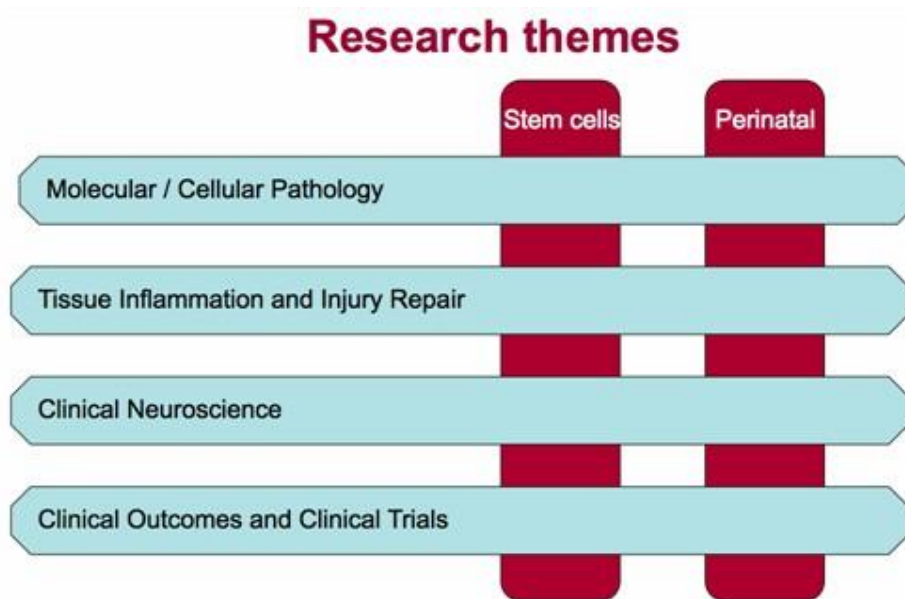
Our focus on clinical research addresses a critical area of unmet need in the early 21st century. The mission is to embed clinical research at the interface between the laboratory and the patient bedside. UQCCR’s joint ‘bench to bedside’ and ‘bedside to bench’ approach will be pivotal in bridging the gap between exponentially expanding biomedical science and the increasing complexity of health care. This will not only translate high quality medical research directly to the patient, but will also provide a ready avenue for clinicians to investigate research questions arising from patient care.

Our goals are:

- To foster innovation in clinical research
- To translate basic and applied research into more effective outcomes for patients
- To train translational researchers and clinical scientists.

In pursuing multi-disciplinary research of the highest quality, the Centre will nurture a strong national and international research profile. We will both develop and evaluate health and medical research, and thus inform policy, change practice and influence the behaviour of health care providers and governments, and ultimately improve health outcomes for consumers.

Our research is organised along four primary themes, linked by two cross cutting themes:



**Molecular and Cellular Pathology**

Research investigating breast, prostate, oral and skin cancer will develop a better understanding of the links between pathological changes at the molecular and cellular level and the clinical expression of the disease seen at the bedside. This will pave the way for development of novel or improved diagnostic technologies, and better methods of treatment.

Research Groups: Lakhani, Lavin, Gardiner, Gobe, Farah.

### **Clinical Neuroscience**

This program works on developing and evaluating new modes of diagnosis and treatment of brain disorders, particularly dementia, stroke, movement disorders, and brain injury in adults and babies. Research will include the areas of neuroimmunology, neuropharmacology, neuroimaging and neuroprotection.

Research Groups: Pow, Greer, McCombe, Colditz, Copland, Rose, Silburn.

### **Tissue Inflammation and Injury Repair**

Inflammation is a fundamental part of many diseases and a prime target for therapeutic interventions. The tissue inflammation and injury repair research program will link basic research on inflammation and repair with new with new approaches to treating inflammation and promoting repair. This will include a focus on a range of injuries such as infection, burns, fractures and arthritis, as well as damage caused by genetic and autoimmune diseases.

Research Groups: Paterson, Fisk, Khosrotehrani.

### **Clinical Outcomes and Clinical Trials**

Clinical trials are intrinsic to our mission of delivering the benefits of new medical research to patients. UQCCR's location alongside one of Australia's largest hospitals optimises opportunities to conduct intensive investigation of how patients respond to new treatments and modes of diagnosis. The Centre will grow clinical trials research particularly focusing on ambulatory Phase Two – Early Phase Three trials and develop new databases to monitor health outcomes.

Research Groups: Hodges, Gardiner, Colditz, Copland, Fisk, Silburn.

Work in stem cell research and perinatal medicine will link these areas as central cross-cutting themes.

## Research Grants Awarded in 2008

### **Randomised Trial of Robotic and Open Prostatectomy: Integrated Multidisciplinary Studies to Guide Patient Management**

*Funding Body:* Cancer Council Queensland

*Amount:* \$1.25m

*Investigators:* **Gardiner, RA**; Dungleison, N; Yaxley, J; Steginga, S; Occhipinti, S; Carter, R; Williams, S; **Lavin, M.**

*Duration:* 5 years

*Aim:* To capitalize on the introduction of robotic laparoscopic surgery at RBWH with prospective studies directed to:

- Undertaking the first randomized study of open versus robotic radical prostatectomy
- Assessing the quality of life effects of robotic surgery compared to open prostatectomy
- Determining the economic costs of robotic surgery compared to open prostatectomy with regards both health sector costs and direct and indirect cost to patients
- Evaluating life expectancy profiles of patients receiving both forms of prostatectomy; and
- Utilizing the increased numbers of patients presenting for both diagnosis and treatment of prostate cancer in progressing research for the early detection of prostate cancer using prostatic fluid

### **Collaborative Research programme in breast cancer**

*Funding Body:* Ludwig Institute for Cancer Research

*Amount:* \$834k

*Investigators:* **Lakhani, S.**

*Duration:* 3 years

*Aims:*

- Collation and pathological review of a large series of invasive lobular cancers (ILC) of the breast and associated metastases
- Creation of tissue microarrays to analyse ILC and its metastases
- Molecular profiling of archival and fresh frozen ILC and metastases

### **Low systemic blood flow in preterm infants**

*Funding Body:* NHMRC Project

*Amount:* \$758k

*Investigators:* **Lingwood, B; Colditz, P;** Lumbers, E; Evans, N; Osbourn, D.

*Duration:* 3 years

*Aim:* This project will:

- Examine the novel hypothesis that low systemic blood flow (SBF) occurs in different forms in the preterm infant with different physiological and neurohumoral profiles
- Confirm that myocardial structure and function, and neurohumoral function are immature in the preterm neonate, and are matured by the administration of corticosteroids
- Test treatment strategies that specifically target different forms of low SBF, in contrast to existing treatments that are applied unselectively to all infants at risk
- Demonstrate that targeted treatment strategies are more effective than an unselective approach

### **GABA excitotoxicity, neuroprotection and perinatal brain**

*Funding Body:* NHMRC Project

*Amount:* \$526k

*Investigators:* **Björkman, ST.**

*Duration:* 3 years

*Aim:* The focus of this project is to:

- Examine systematically the normal expression of the GABAA receptor, and the chloride (Cl<sup>-</sup>) co-transporters NKCC1 and KCC2 (which determine whether GABA is excitatory or inhibitory) in human and piglet perinatal brain
- Investigate the impact of HI on these ion channels and with this knowledge, and
- Examine potential neuroprotective therapies

### **ATM activation and its functional importance in DNA damage response**

*Funding Body:* NHMRC Project

*Amount:* \$534k

*Investigators:* **Lavin, M; Kozlov, S; Graham, M.**

*Duration:* 3 years

*Aims:*

- To investigate early events in ATM activation
- To investigate the functional importance of specific modifications of ATM in the DNA damage response
- To compare the effects of DNA damage and other stimuli on the pattern of ATM autophosphorylation and activation

### **Functional contribution of fetal microchimeric cells in transgenic models of maternal tissue repair in and after pregnancy**

*Funding Body:* NHMRC Project

*Amount:* \$521k

*Investigators:* **Fisk, NM**; **Khosrohtehrani, KP**; Bou Gharios, G.

*Duration:* 3 years

*Aim:* This project will investigate fetal cells that persist in the mothers body after pregnancy:

- To characterise the nature of fetal microchimeric cells in maternal tissue repair
- To investigate the degree to which fetal microchimeric cells contribute to maternal tissue repair in acute injury models
- To document whether fetal microchimeric cells contribute beneficially to maternal tissue repair in chronic mouse models of human disease

### **Using a unique model of human retinal disease to test novel therapies**

*Funding Body:* NHMRC Project

*Amount:* \$517k

*Investigators:* **Pow, D**; Provis, J; Taylor, S; **Barnett, N**; Woodruff, T; Kwan, A.

*Duration:* 3 years

*Aim:* This application consists of two distinct aspects:

- A further and more extensive characterization of the model in relationship to parameters such as an analysis of the expression of proteins or the mRNA for proteins that are implicated in the pathogenesis of AMD
- A testing of four hypotheses:
  - (1) We will be able to modify outcomes after the lesions first appear, using agents that target inflammation and / or neovascularisation
  - (2) We will be able to prevent the formation of degenerative lesions by proactive prophylactic systemic or local treatment with anti-inflammatory agents that are currently available including corticosteroids and a novel C5a antagonist
  - (3) A novel active immunization paradigm will suppress activation of the VEGFR2 receptor and thus inhibit choroidal neovascularisation
  - (4) We will be able to detect the sites of prior microbleeds in the aged human retina, as evinced by the presence of haemosiderin-containing macrophages, with an increased incidence in eyes from donors that exhibited AMD lesions

### **A novel biomarker of distressed neurons in the hypoxic brain: regulation, function and potential clinical utility**

*Funding Body:* NHMRC Project

*Amount:* \$506k

*Investigators:* **Pow, D**; Poronnik, P; **Colditz, P**.

*Duration:* 3 years

*Aim:* Hypoxia, alone, or in association with ischaemia is a major cause of brain damage or death in human neonates. The project will examine the control of expression of a novel protein GLAST1b that we have shown to be dramatically up-regulated in the brain after an hypoxic insult. This project aims to test the hypotheses that:

- (1) GLAST1b is a sensitive marker of distressed neurons in brains that have been subjected to hypoxic insults
- (2) GLAST1b expression is not obligately co-associated with the presence of markers indicative of impending cell death but is evoked as a neuroprotective mechanism
- (3) GLAST1b expression in neurons is up-regulated in response to elevation of extracellular glutamate and may be co-regulated by HIF1a
- (4) Glutamate and HIF-1a increase expression of GLAST1b in cells transfected with a cDNA encoding GLAST1b. This will in turn enhance transport of glutamate analogues by these cells
- (5) GLAST1b is detectable in cerebrospinal fluid at elevated levels post hypoxic insults and the level of is an indicator of severity of damage to the brain

**Pamela McCombe**, Robert Henderson, Tony Pettitt, Gareth Ridall, G Bellingham. *Assessment of disease progression in MND*. NHMRC Project \$461,250

**Paul Hodges**, Kylie Tucker, Jane Butler, Jayne Garland, Andrew Cresswell. *Reconsideration of the motor adaptation to pain*. NHMRC Project Grant \$448,000

**Robert Gardiner**, Raymond Clarke, **Martin Lavin**. *The Relationship between PCA3 and BMCC1 in Prostate Cancer Development and Detection*. Prostate Cancer Foundation Grant \$393 000

**Judith Greer**. *Designing specific therapeutic agents for MS*. MS Australia \$330,000

**Peter Silburn**. *UQ-VARI Parkinson's Disease Laboratory*. Van Andels Research Institute \$300,000

**Nick Fisk**. *Twin-Twin transfusion pathophysiology*. Wiseman Trust \$210,000

**Frank Gardiner**, **Martin Lavin**. *Prostate cancer detection employing novel PCA isoforms in semen and ejaculate*. Australian Urological Foundation/Bruce Pearson Grant \$200,000

**Frank Gardiner**. *Molecular-Based Strategies for Staging Prostate Cancer*. Cancer Council Queensland \$164,000

**Martin Lavin**. *A novel role for SMG 1 protein kinase in stress granule formation and the stress response*. ARC Discovery \$110,000

**Judith Greer**, **Pamela McCombe**. *The effects of pregnancy and the post-partum period on T cells, antibodies, and gene expression in EAE*. MS Australia \$93,500

**Paul Colditz**. *Ambulatory fetal activity monitoring predicts clinical outcome*. National SIDS Council of Australia \$89,725

**Nigel Barnett**, Glen Gole. *The effects of a transient elevation of IOP upon retinal function and structure*. ORIA \$48,320

**Nigel Barnett**, **David Pow**. *Micro-haemorrhage as an initiating factor for Alzheimer's disease and Age related Macular degeneration: examining a novel rat model*. JO and JR Wicking Trust \$45,000

**Kiarash Khosrotehrani**. Establishment grant. Clive & Vera Ramaciotti Foundation.

**Paul Colditz**, Luciano M, **Nick Fisk**, Davies P, Morley R. *Genetic and environmental influences on body composition and growth trajectories in twins in the first year of life*. UQ Enabling Fund \$30,000

**Peter Simpson**. *Investigating the metabolic spread of lobular breast cancer*. UQ Early Career Researchers Award \$25,000

**Tracey Bjorkman**. *GABA<sub>A</sub> Receptor  $\alpha$ 3 expression in the human perinatal brain*. UQ Early Career Researchers Award \$13,600

## Ongoing Grants in 2008

**David Paterson**. *Optimizing dosing of colistin for infections resistant to all other antibiotics*. US National Institute for Allergy and Infectious Diseases 2007-2012 \$2,300,000

**Paul Hodges**, Gwendolene Jull, Justin Kenardy, Michele Sterling, Bill Vicenzino, Peter Brooks, Luke Connelley, Andrew Cresswell, Graham Galloway. *NHMRC CCRE for spinal pain, injury and health*. 2006 - 2010 \$2,000,000

**Sunil Lakhani**. *Molecular Pathology*. 2005-2010 Cancer Bequest Fund \$1,000,000



**David Paterson.** *Invasive fungal infections in ultra-high risk transplant recipients.* Centers for Disease Control and Prevention (CDC) 2004-2009 \$1,000,000

**Boualem Boashash, Christopher Burke, Paul Colditz, Barbara Lingwood, Stephen Rose.** *Seizure detection in the newborn.* 2005-2008 NHMRC Project Grant \$716,250

**Judith Greer, Michael Pender.** *Investigations In Multiple Sclerosis Patients With Coexistent Autoimmune Thyroid Disease.* 2005-2008 NHMRC Project Grant \$548,100

**Paul Colditz.** *Towards improved neonatal intensive care practices for optimal neurodevelopmental outcomes: neuroscience to the rescue.* 2003-2009 Mayne Bequest Fund \$510,000

**Camile Farah, Michael McCullough.** *The assessment of clinical and molecular adjunctive tools for the early detection of oral mucosal neoplasia.* 2008-2010 NHMRC Project Grant \$436,000

**Judith Greer, Michael Pender, Raymond Sobel, Elisabeth Trifilieff.** *Mechanisms of lesion localization in multiple sclerosis.* 2007 -2009 NHMRC Project Grant \$427,750

**Kathryn Buller, Paul Colditz, Glenda Gobe.** *Mechanisms contributing to long-term neuronal loss after hypoxia-ischemia in the premature neonate brain.* 2008-2010 NHMRC Project Grant \$413,375

**Judith Greer, Pamela McCombe, Stephen Read.** *Immune Response to stroke.* 2008-2011 Wesley Research Institute Limited \$330,000

**Pamela McCombe.** *Characterisation of peripheral immune response to ischaemic stroke.* 2006-2008 Royal Brisbane & Women's Hospital Research Foundation \$300,000

**Nigel Barnett, Glen Gole, Sinisa Grozdanic.** *Neuroprotection in a model of chronic ocular hypertension.* 2006-2008 NHMRC Project Grant \$284,856

**Paul Hodges, Jacek Cholewicki, Jaap van Dieen, Thomas Graven-Nielsen, Lorimer Moseley, Robert Herbert.** *Pain and trunk muscle control: Effects, mechanisms and consequences.* NHMRC Project Grant 2006-2009 \$283,000

**Martin Lavin, Kevin Spring, Robert Ullrich.** *Investigation of cancer predisposition in heterozygous carriers of the ATM.* 2003-2008 NHMRC Project Grant \$271,250

**Martin Lavin, Phillip Robinson.** *Identification of functionally important autophosphorylation site(s) on ataxia telangiectasia and Rad 3 related (ATR) protein kinase.* 2006-2008 ARC Discovery Projects \$265,000

**Jeffrey Lipman.** *Predicting the risk of invasive candidiasis in critically ill patients.* 2008-2011 University of Sydney \$254,000

**Kathryn Buller.** *'Better late than never: strategies to ameliorate brain injury in the preterm neonate after a hypoxic-ischemic insult'.* 2007-2010 Lions Medical Research Foundation \$247,500

**Boualem Boashash, Paul Colditz.** *Automated Seizure Detection in the Newborn.* 2005-2008 NHMRC Development Grant \$243,750

**Boualem Boashash, Paul Colditz, Mostefa Mesbah.** *Multi-channel time-frequency analysis for EEG neonatal seizure characterization.* 2006-2008 ARC Discovery Projects \$240,000

**Boualem Boashash, Paul Colditz.** *Design of neonatal seizure diagnosis methods using time-frequency signal processing.* 2006-2009 ARC Linkage Projects \$232,000

**Paul Hodges, Michel Coppieters, Jaap van Dieen, Allison Kaigle.** ARC Discovery Project Grant. *Competing demands on the axial muscles: Effects, consequences, compensations and mechanisms.* 2006: \$220,000

**Judith Greer, Michael Pender, Jun Yan .** *Mechanisms leading to constitutive activation of the transcription factor NF- $\kappa$ B in progressive multiple sclerosis.* 2007-2009 Multiple Sclerosis Research Australia \$165,000

**Paul Colditz.** *Neuroexcitatory receptor ontogeny and distribution in the piglet brain.* 2003 -2008 Mayne Bequest Fund \$160,000

**Andreas Zankl.** *A registry and clinical surveillance service for patients with genetic bone disorders.* 2008-2010 Royal Children's Hospital Foundation \$150,000

**Camile Farah, P Mills, R Aland, S Lakhani.** *The Virtual Slidebox – a new learning paradigm for exploring the microscopic world.* Carrick Institute 2007-2008 \$133,346

**Paul Colditz.** *Neonatal Brain Monitor, Agilent 2100 Bioanalyser and further research at the Perinatal Research Centre.* 2003-2008 The Royal Women's Hospital Auxiliary \$114,289

**Andreas Zankl.** *Development of an integrated knowledge base for skeletal dysplasias.* 2007-2009 ANZ Executors and Trustees' Company Ltd \$50,000

**Robert Gardiner.** *Molecular profiling for prostate cancer prognosis.* 2008-2009 Royal Brisbane & Women's Hospital Research Foundation \$44,000

**Martin Lavin, David Walker .** *Targeting glioma stem cells as a potential therapy for glioblastoma multiforme.* 2008-2009 Cancer Bequest Fund \$43,050

**Paul Colditz.** *Seizure detection in the newborn.* 2006-2009 Royal Brisbane & Women's Hospital Research Foundation \$33,689

**Gerard Byrne.** *Double-Blind, Parallel-Group Comparison of 23mg Donepezil Sustained Release to 10mg Donepezil Immediate Release in Patients with Moderate to Severe Alzheimer's Disease.* 2007-2009 Icon Clinical Research Pty Limited \$26,208

**Paul Colditz.** *Estimation of drugs, peptides and metabolites using HPLC - Mass-spectrometry-microdialysis.* 2006-2009 Royal Brisbane & Women's Hospital Research Foundation \$25,300

**Leith Moxon-Lester.** *Can S-adenosyl methionine reduce hypoxic-ischemic white matter injury in the preterm brain by maintaining the viability and function of oligodendrocytes?* 2008-2009 Royal Brisbane & Women's Hospital Research Foundation \$22,000

**Stephen Rose, Alan Coulthard, Craig Winter, Katie McMahon.** *A Pilot Feasibility Study for Improved Neurosurgical Planning and Postoperative Assessment in Patients with Cerebral Tumours using Clinical functional MRI and Diffusion Tensor Tractography.* Royal Brisbane & Women's Hospital Research Foundation \$18,000

**Camile Farah, M McCullough.** *Comparative genomic characterization of oral epithelial dysplasia and squamous cell carcinoma.* Australian Dental Research Foundation 2008 \$13,500

**Paul Colditz.** *Infant body composition: a primary neonatal outcome in a randomized controlled trial of an exercise intervention in obese pregnant women to reduce gestational diabetes.* 2007-2009 Royal Brisbane & Women's Hospital Research Foundation \$10,084

**Paul Colditz.** *Automated seizure detection in the newborn.* 2006-2009 Royal Brisbane & Women's Hospital Research Foundation \$9,900

**Paul Colditz.** *INIS Clinical Trial. Part of the 'International Neonatal Immunotherapy Study (INIS): a randomised trial of intravenous immunoglobulin for neonatal sepsis'.* NHMRC Project grant. 2004-2008 \$4,350

**Camile Farah, M McCullough.** *Chemiluminescent visualization and DNA ploidy analysis of oral mucosal lesions.* Australian Dental Research Foundation 2008 \$3,500

**Paul Colditz.** *Hypoxic-ischemic brain injury in the newborn: endogenous energy as a brain rescue agent?* 2007-2009 Royal Brisbane & Women's Hospital Research Foundation \$1,894

## Collaborative Grants Ongoing in 2008

Marie Smith, Elizabeth Coulson, **Rose Stephen**, Ian Brereton, Jonathan Chalk, Andrew Whittaker. *Alzheimer's Disease: Novel MRI Biomarkers for Clinical Diagnosis and Translational Studies*. Queensland Government Smart State National and International Research Alliances Program grant \$1,620,275

Graham Kerr, Steven Morrison, **Paul Hodges**, James Smeathers, Janek Cholewicki. *Dynamic postural stability and falls prediction in older people during walking in real-world environments*. NHMRC Project Grant 2007 – 2009 : \$654,000

Helen Chenery, Humphreys, Hegney, Byrne, Gallois, **David Copland**, Anthony Angwin. *An efficacy study of cognitive- communicative intervention to improve transition to residential care in dementia*. 2008-2010 NHMRC Dementia \$639,000

Mark Forwood, David Hume, Lisa Kidd, Ralph Miller, **Allison Pettit, Liza-Jane Raggatt**. *Role of bone-associated macrophages in bone remodelling and bone disease* 2007-2009 NHMRC Project Grant \$543,000

Luciana Chess, Nuri Gueven, **Martin Lavin**. *Senataxin, a novel protein involved in the DNA damage response*. 2007-2009 NHMRC Project Grant \$481,500

Christopher Burke, **Paul Colditz, Glenda Gobe**, David Johnson, Michael Goligorsky, David Vessey, Zhigiang Wang. *Cytoprotection by erythropoietin in hypoxia-ischaemia of the kidney and brain*. 2006-2008 NHMRC Project Grant \$467,750

Bruce Murdoch, **Paul Hodges**, Fay Horak, Brooke-Mai Whelan, Justine Goozee, Sandra Brauer. *The contribution of dopamine to the regulation of orofacial, limb and trunk control: System or function specific effects?* NHMRC Project Grant. 2007 - 2009 \$465,000

Bill Vincenzino, **Paul Hodges**, Andrew Chapman, Milner T, Blanch P, Osu R, Hahn AG, McPoil T, Schache A. *Neuromuscular adaptations to training, cross training and passive physical interventions: A neurophysiological approach to understanding human performance and musculoskeletal injury*. ARC Linkage Grant 2006 - 2008 \$448,000

AN Pettitt, G Ridall, **Pamela McCombe**; Rob Henderson; JH Blok; NP Friel. *Novel Applied Bayesian Statistics for Monitoring Neuromuscular Diseases*. 2008-2010 Australian Research Council \$435,000

Mark Graham, Sergei Kozlov, **Martin Lavin**, Philip Robinson. *Mechanism of activation of ATM by DNA double strand breaks and other stimuli*. 2006-2008 NHMRC Project Grant \$427,625

Shaun Brennecke **Paul Colditz**, Stuart Crozier, Christine East, Vicki Flenady, Jon Hyett, Ian Jones **Mostefa Mesbah**, Carol Portmann, Colin Sullivan Stephen Wilson, Fung Yee Chan. *Ambulatory fetal activity monitoring predicts clinical outcome*. 2007-2009-NHMRC Project Grant \$419,005

Jane Latimer, Chris Maher, Lorimer Moseley, **Paul Hodges**, Leslie Nicholson.. *Which exercise for chronic low back pain*. NHMRC Project Grant 2007 – 2009 \$380,000

Helen Chenery, Humphreys, Hegney, Bryne, **David Copland**, Antony Angwin. *Communication training for enhanced nursing home transition in dementia*. 2008-2009 Wicking Trust \$336,000

Anthony Angwin, **David Copland**, Katie McMahon Lyndsey Nickels. *Neurocognitive substrates of naming facilitation in aphasia*. 2008-2010 ARC Discovery Projects \$323,000

Catherine Clarke, **Sunil Lakhani**, Brent Reynolds, **Peter Simpson**, Michael Stratton, Emma Whitelaw. *Molecular Profiling of Breast Tumour Stem/Progenitor Cells*. 2007-2009 NHMRC Project Grant \$296,75

Kim Bennell, **Paul Hodges**, Rana Hinman, David Hunter, Tim Wrigley. *Reducing knee load and slowing disease progression with conservative interventions in knee osteoarthritis*. NHMRC Project Grant 2007 -2008 \$184,000

Thilo Dork, Magtouf Gatei, Nuri Gueven, **Martin Lavin**. *ATM-dependent phosphorylation of Rad50 mediates the DNA damage response*. 2008 -2009 The Cancer Council of Queensland \$88,000

Ian Frazer, Thomas Gonda, Alun Jones, Nicholas Saunders, **Kong-Nan Zhao**. *Codon modifications redirect expression of HPV16 E7 oncogene and human oncosuppressor genes (p53 & Rb) in keratinocytes*. 2008-2009 The Cancer Council of Queensland \$140,800

Rob Henderson, **Pamela McCombe**, **Chalk Jonathan**, Coulthard A, Pettitt AP, Ridall PG. *Measuring disease of upper and lower motor neurons in MND*. 2008 Motor Neurone Disease Research Institute of Australia \$40,000

M Matias, **Camile Farah**. *Influence of Th1 cytokine deficiency on osteogenic and angiogenic markers involved in bone healing*. Australian Dental Research Foundation 2008 \$7,180

M Matias, **Camile Farah**. *Expression of molecular inflammatory mediators during oral mucosal wound healing*. Australian Dental Research Foundation 2008 \$6,500

## New Fellowships awarded in 2008

**Susan Sullivan**. NHMRC Training Fellowship: *Using astrocytes to protect the brain from injury: Investigating mechanisms and therapeutic strategies*. \$285,000

## Fellowships ongoing in 2008

**Martin Lavin**. NHMRC Senior Principal Research Fellowship. 2007-2011 NHMRC Research Fellowship \$736,250

**Paul Hodges**. NHMRC Principal Research Fellowship. 2006-2010 NHMRC Research Fellowship \$638,705

**David Copland**. NHMRC Career Development Award (Clinical - Level 2): *Neurorehabilitation of aphasia* 2008-2012 NHMRC Career Development Award \$429,000

**Paul Colditz**. NHMRC Practitioner Fellowship. 2007-2011. \$400,000

**Allison Pettit**. NHMRC Career Development Award (Biomedical - Level 1) *Osteal macrophages: novel regulators of osteoblast function and the endosteal stem cell niche* 2008-2012 NHMRC Career Development Award \$390,000

**David Pow**. NHMRC Research Fellowship (SRFB). 2008-2010 NHMRC Research Fellowship \$321,062

## New Infrastructure Funding awarded in 2008

University of Queensland Major Equipment and Infrastructure Grants 2008:

- Flow cytometry \$230,762
- Microscopy \$618,050
- RT PCR \$164,450
- Centrifuges \$279,750

## Awards to UQCCR staff in 2008

- The Merck UQ Young Achiever Award was awarded to **Chanel Smart** in the Lakhani Group
- UQ Foundation Research Excellence Awards were awarded to **David Copland** and **Paul Hodges**
- **Kathryn Buller** won the Sir Ian MacFarlane Medal for the Best Contribution to Research at the RBWH Research Symposium
- **Paul Hodges** won a UQ Meritorius Higher Degree Supervision award.

## Peer Reviewed Manuscripts with Impact Factor &gt; 15

1. **Peleg, A.Y.**, Seifert, H., **Paterson, D.L.** (2008) *Acinetobacter baumannii*: emergence of a successful pathogen. *Clin Microbiol Rev* 21: 538-82, IF = 15.8
2. Spurdle, A.B., **Lakhani, S.R.**, Healey, S., Parry, S., **Da Silva, L.M.**, Brinkworth, R., Hopper, J.L., Brown, M.A., Babikyan, D., Chenevix-Trench, G., Tavtigian, S.V., Goldgar, D.E. (2008) Clinical Classification of BRCA1 and BRCA2 DNA Sequence Variants: The Value of Cytokeratin Profiles and Evolutionary Analysis--A Report From the kConFab Investigators. *J Clin Oncol* 26:10:1657-1663. IF = 15.5

## Peer Reviewed Manuscripts with Impact Factors 5 - 14

3. **Fisk N.M.**, Atun R. (2008) Market failure and the poverty of new drugs in maternal health. *PloS Med*. 5:e22 IF = 12.6
4. Tunstall-Pedoe, O., Anindita, R., Karadimitris, A., de la Fuente, J., **Fisk, N.M.**, Bennett, P., Norton, A., Vyas, P., Roberts, I. (2008) Abnormalities in the myeloid progenitor compartment in Down syndrome fetal liver precede acquisition of GATA1 mutations. *Blood*. 112:4507-11. IF = 10.9
5. Guillo,t P.V., Abass, O., Bassett, J.H., Shefelbine, S.J., Bou-Gharios, G., Chan, J., Kurata, H., Williams, G.R., Polak, J., **Fisk, N.M.** (2008) Intrauterine transplantation of human fetal mesenchymal stem cells from first trimester blood repairs bone and reduces fractures in osteogenesis imperfecta mice. *Blood*. 111:1717-25, 2008 IF = 10.9
6. **Fisk, N.M.**, Atun, R.A. (2008) Public-private partnership in cord blood banking. *BMJ*. 336:642.4 IF = 9.7
7. **Al Salmi, I**, Hoy, WE, Kondalsamy-Chennakesavan, S, Wang Z., **Gobe G.C.**, Barr E.L., Shaw J.E., (2008) Disorders of glucose regulation in adults and birth weight: results from the Australian Diabetes, Obesity and Lifestyle (AUSDIAB) Study. *Diabetes Care*, 31:159-164. IF = 7.9
8. De Bari, C., Guillot, P.V., **Fisk, N.M.**, Jones, E.A., McGonagle, D., Khan, I.M., Archer, C.W., Mitsiadis, T.A., Luyten, F.P., Pitzalis, C., Dell'Accio, F. (2008) A biomarker-based mathematical model to predict bone forming potency of human synovial and periosteal mesenchymal stem cells. *Arthritis Rheumat*. 58:240-50, 2008 IF = 7.7
9. Zhang, Z., Teoh, S.H., Chong, M., Schantz, J.T., **Fisk, N.M.**, Choolani, M.A., Chan, J. (2008) Superior osteogenic capacity for bone tissue engineering of fetal compared to perinatal and adult mesenchymal stem cells. *Stem Cells* [Epub ahead of print]. IF = 7.5
10. Kollef, M. H., Morrow, L. E., Baughman, R. P., Craven, D. E., McGowan, J. E., Jr., Micek, S. T., Niederman, M. S., Ost, D., **Paterson, D. L.**, Segreti, J. (2008) Health care-associated pneumonia (HCAP): a critical appraisal to improve identification, management, and outcomes--proceedings of the HCAP Summit, *Clinical Infectious Diseases*, 46 Suppl 4: S296-334. IF = 6.8
11. **Paterson, D. L.** (2008) Impact of antibiotic resistance in gram-negative bacilli on empirical and definitive antibiotic therapy, *Clinical Infectious Diseases*, 47: Suppl 1: S14-20. IF = 6.8
12. **Lavin, M.F.** (2008) Ataxia-telangiectasia: from a rare disorder to a paradigm for cell signalling and cancer. *Nat Rev. Mol Cell Biol*. 9: 759-769 IF = 6.4
13. Roberts, J.A., Kruger, P., **Paterson, D.L.**, **Lipman, J.** (2008) Antibiotic resistance – what's dosing got to do with it? *Crit Care Med* 36: 2433-40, 2008. IF = 6.3
14. Pfender, N.A., Grosch, S., Roussel, G., Koch, M., Trifilieff, E., **Greer, J.M.** (2008) The type of bond between lipid chain and peptide determines the route of uptake of palmitoylated PLP encephalitogenic peptides by antigen-presenting cells. *J Immunol*. 180:1398-1404. IF = 6.1

15. **Greer, J.M., Csurhes, P.A.,** Muller, D.M., Pender, M.P. (2008) Correlation of blood T cell and antibody reactivity to myelin proteins with HLA type and lesion localization in multiple sclerosis. *J Immunol.* 180:6402-6410. IF = 6.1
16. Chang, M.K., **Raggatt, L.J.,** Alexander, K.A., Kuliwaba, J.S., Fazzalari, N.L., Schroder, K., Maylin, E.R., Ripoll, V.M., Hume, D.A., **Pettit, A.R.** (2008) Osteal tissue macrophages are intercalated throughout human and mouse bone lining tissues and regulate osteoblast function in vitro and in vivo. *J Immunol* 181, 1232-44 IF = 6.1
17. **Raggatt, L.J.,** Qin, L., Tamasi, J., Jefcoat, Jr S.C., Liew, F.Y., Beverlock, L., Feyen, J.H.M., Partridge, N.C. (2008) IL-18 is regulated by parathyroid hormone and is required for its bone anabolic actions. *J Biol Chem* 283: 6790-8 IF = 5.6
18. Reis-Filho, J.S., **Lakhani, S.R.** (2008) Breast cancer special types: why bother? *Journal of Pathology* 216 4:394-398 IF = 5.4
19. **Simpson, P.,** Reis-Filho, J., Lambros, M., Jones, C., Steele, D., Mackay, A., Irvani, M., Fenwick, K., Dexter, T., Jones, A., **Reid, L., Da Silva, L.,** Shin, S., Hardisson, D., Ashworth, A., Schmitt, F., Palacios, J., **Lakhani, S.** (2008) Molecular profiling pleomorphic lobular carcinomas of the breast: evidence for a common molecular genetic pathway with classic lobular carcinomas. *J Pathol* 215:231-244. IF = 5.4
20. Guillot, P., Cook, H., Pusey, C., **Fisk, N.M.,** Harten, S., Moss, J., Shore, I., & Bou-Gharios, G. (2008) Transplantation of human fetal mesenchymal stem cells improves glomerulopathy in a collagen type I $\alpha$ 2-deficient mouse. *J Pathol.* 214:627-36. IF = 5.4
21. Reis-Filho J., **Lakhani SR.** (2008) Breast cancer special types: why bother? *J Pathol.* 216:4:394-398. IF = 5.4
22. St Pierre, L., Earl, S.T., Filippovich, I., Sorokina, N., Masci, P.P., de Jersey, J., **Lavin, M.F.** (2008) Common evolution of waprin and kunitz-like toxin families in Australian venomous snakes. *Cell Mol Life Sci.* 65: 4039-4054. IF = 5.2

## Other Peer Reviewed Manuscripts

23. Abrahamian, F. M., Deblieux, P. M., Emerman, C. L., Kollef, M. H., Kupersmith, E., Leeper, K. V., Jr., **Paterson, D. L.,** & Shorr, A. F. (2008) Health care-associated pneumonia: identification and initial management in the ED. *Am J Emerg Med*, 26: 1-11.
24. Adams-Haduch, J.M., **Paterson, D.L.,** Sidjabat, H.E., Pasculle, A.W., Potoski, B.A., Muto, C.A., Harrison, L.H., Doi, Y. (2008) Genetic basis of multidrug resistance in *Acinetobacter baumannii* clinical isolates at a tertiary medical center in Pennsylvania. *Antimicrob Agents Chemother.* 52(11):3837-43
25. Baquero, F., Hsueh, P.R., **Paterson, D.L.,** Rossi, F., Bochicchio, G.V., Gallagher, G., Lantz, K., Villasenor, J. B., McCarroll, K., Abramson, M.A., & Chow, J. W. (2008) In Vitro Susceptibilities of Aerobic and Facultatively Anaerobic Gram-Negative Bacilli Isolated from Patients with Intra-Abdominal Infections Worldwide: 2005 Results from Study for Monitoring Antimicrobial Resistance Trends (SMART). *Surgery and Infection*, (Larchmt) (ePub).
26. **Buller, K.M.,** Carty, M.L., Reinebrant, H.E., & Wixey, J.A. (2008) Minocycline: A neuroprotective agent for hypoxic-ischemic brain injury in the neonate? *J Neuroscience Res*, 87: 599-608, **Review.**
27. **Buller, K.M., Wixey, J.A.,** Pathaparti, P., **Carty, M., Colditz, P.B.,** Williams, C.E., & Scheepens. (2008) A. Selective losses of brainstem catecholamines neurons after hypoxia-ischemia in the immature rat pup. *Paediatric Research.* 63: 364-369.

28. **Carty, M.L., Wixey, J.A., Colditz, P.B., & Buller, K.M.** (2008) Post-insult minocycline treatment attenuates hypoxia-ischemia-induced neuroinflammation and white matter injury in the neonatal rat: a comparison of two different dose regimens. *Int J Dev Neurosci.* 26: 477-85. Epub.
29. Catto, J.W.F., **Gardiner, R.A.**, & Esuvaranathan, K. (2008) Superficial Bladder tumours. *BJU International, FingerTip Urology*, [www.BJUI.org](http://www.BJUI.org)
30. Catto, J.W.F. & **Gardiner, R.A.** (2008) Haematuria. *BJU International, FingerTip Urology*, [www.BJUI.org](http://www.BJUI.org)
31. Chambers, S.K., Ferguson, M., **Gardiner, R.A.**, Nicol, D., Gordon, L., Occhipinti, S., & Aitken, J. (2008) ProsCan for Men: Randomised controlled trial of a decision support intervention for men with localised prostate cancer. *BMC Cancer*, 8:207-23.
32. Chambers, S.K., Schover, L., Halford, K., Clutton, S., Ferguson, M., Gordon, L., **Gardiner, R.A.**, Occhipinti, S., & Dunn, J. (2008) ProsCan for Couples: Randomised controlled trial of a couples-based sexuality intervention for men with localised prostate cancer who receive radical prostatectomy. *BMC Cancer*, 8:226
33. Chan, J., Kumar, S., **Fisk, N.M.** (2008) First Trimester Embryo-Fetoscopic And Ultrasound-Guided Fetal Blood Sampling For Ex-Vivo Viral Transduction Of Cultured Human Fetal Mesenchymal Stem Cells. *Human Reproduction*.23:2427-37.
34. Chiang, M.C., Leow, A.D., Klunder, A.D., Dutton, R.A., Barysheva, M., **Rose, S.E.**, McMahon, K.L., de Zubicaray, G.I., Toga, A.W., Thompson, P.M. (2008) Fluid registration of diffusion tensor images using information theory. *ITEE Transactions on Medical Imaging* 27:442-56.
35. Chrysostomou, V., Stone, J., Stowe, S., **Barnett N. L.**, Valter, K. (2008) The status of cones in the rhodopsin mutant P23H-3 retina: light-regulated damage and repair in parallel with rods, *Invest Ophthalmol Vis Sci*, 49:1116-1125.
36. **Da Silva, L.**, Parry, S., **Reid, L.**, **Keith, P.**, Waddell, N., Kossai, M., Clarke, C., **Lakhani, S.R.**, & **Simpson, P.T.** (2008) Aberrant expression of E-cadherin in lobular carcinomas of the breast. *Am J Surg Pathol* 32:773-783.
37. Doi, Y., Adams-Haduch, J. M., & **Paterson, D. L.** (2008) Escherichia coli isolate coproducing 16S rRNA Methylase and CTX-M-type extended-spectrum beta-lactamase isolated from an outpatient in the United States. *Antimicrobial Agents and Chemotherapy*, 52: 1204-1205.
38. Doi, Y., Adams-Haduch, J. M., & **Paterson, D. L.** (2008) Genetic environment of 16S rRNA methylase gene rmtD, *Antimicrobial Agents and Chemotherapy*, 52: 2270-2272.
39. Doi, Y., Poirel, L., **Paterson, D. L.**, & Nordmann, P. (2008) Characterization of a naturally occurring class D beta-lactamase from Achromobacter xylosoxidans. *Antimicrobial Agents and Chemotherapy*, 52: 1952-1956.
40. Doi, Y., Potoski, B. A., Adams-Haduch, J. M., Sidjabat, H. E., Pasculle, A. W., & **Paterson, D. L.** (2008) Simple disk-based method for detection of Klebsiella pneumoniae carbapenemase-type beta-lactamase by use of a boronic acid compound, *J Clin Microbiol*, 46: 4083-4086.
41. Drake, M., Webber, R., **Gardiner, F.**, & Fitzpatrick, J.M. (2008) Editor's Comment: How the new BJU International website benefits prospective authors. *BJU Int*, 101:i-ii.
42. Duerson, K., Woltjer, R.L., Mookherjee, P., Leverenz, J.B. Montin, T.J., Bird, T.D., **Pow, D.V.**, & Cook, D.G. (2008) Detergent-insoluble EAAC1 / EAAT3 aberrantly accumulates in hippocampal neurons of Alzheimer's disease patients. *Brain Pathol.* Epub
43. Endimiani, A., Carias, L. L., Hujer, A. M., Bethel, C. R., Hujer, K. M., Perez, F., Hutton, R. A., Fox, W. R., Hall, G. S., Jacobs, M. R., **Paterson, D. L.**, Rice, L. B., Jenkins, S. G., Tenover, F. C., & Bonomo, R. A. (2008) Presence of plasmid-mediated quinolone resistance in Klebsiella pneumoniae

- isolates possessing blaKPC in the United States. *Antimicrobial Agents and Chemotherapy*, 52: 2680-2682.
44. Engineer, N., O'Donoghue, K., Wimalasundera, R., & **Fisk, N.M.** (2008) The effect of polyhydramnios on cervical length in twins: a controlled intervention study in complicated monochorionic pregnancies. *PLoS ONE*, 3:3834.
  45. Faddy, H.M., **Smart, C.E.**, Xu, R., Lee G.Y., Kenny P.A., Feng M., Rao R., Brown M.A., Bissell M.J., Roberts-Thomson S.J., Monteith G.R. (2008) Localization of plasma membrane and secretory calcium pumps in the mammary gland. *Biochem Biophys Res Commun*, 369:977-981.
  46. **Farah, C.S.**, Simanovic, B., & Savage, N.W. (2008) Scope of practice, referral patterns and lesion occurrence of an oral medicine service in Australia. *Oral Diseases*, 14:367-375.
  47. **Farah, C.S.** & McCullough, M.J. (2008) Oral cancer awareness for the general practitioner: new approaches to patient care. *Australian Dental Journal*. 53:2-10
  48. Finnigan, S.P., **Rose, S.E.**, Chalk, J.B. (2008) Contralateral hemisphere delta EEG in acute stroke precedes worsening of symptoms and death. *Clinical Neurophysiology*, 119:1689-95.
  49. Galea, P., Barigye, O., Wee, L., Jain, V., & **Fisk, N.M.** (2008) The placenta may contribute to activation of the renin angiotensin system in Twin-twin Transfusion Syndrome. *Placenta*, 29:734-42.
  50. Garcia Dde, O., Doi, Y., Szabo, D., Adams-Haduch, J. M., Vaz, T. M., Leite, D., Padoveze, M. C., Freire, M. P., Silveira, F. P., & **Paterson, D. L.** (2008) Multiclonal outbreak of *Klebsiella pneumoniae* producing extended-spectrum beta-lactamase CTX-M-2 and novel variant CTX-M-59 in a neonatal intensive care unit in Brazil. *Antimicrobial Agents and Chemotherapy*, 52:1790-1793.
  51. **Gardiner, R.A.** & Fitzpatrick, J.M. (2008) Editor's Comment: Finger Tip Urology - illustrations for patient dialogue at the click of your cursor. *BJU International*, 101 i.
  52. **Greer, J.M.**, & **Pender MP.** (2008) Myelin proteolipid protein: An effective autoantigen and target of autoimmunity in multiple sclerosis. *Journal of Autoimmunity*. 31:281-287
  53. Guillot, P.V., De Bari, C., Dell'Accio, F., Kurata, H., Polak, J., **Fisk, N.M.** (2008) Comparative osteogenic transcription profiling of various fetal and adult mesenchymal stem cell sources. *Differentiation*, 76:946-57.
  54. Gunter, J. H., Thomas, E. C., Lengefeld, N., Kruger, S. J., Worton, L., Gardiner, E. M., **Jones, A., Barnett, N. L.** & Whitehead, J. P. (2008) Characterisation of inosine monophosphate dehydrogenase expression during retinal development: differences between variants and isoforms, *Internat J Biochem Cell Biol*, 40, 1716-1728.
  55. Hamdy, F.C. & **Gardiner, R.A.** (2008) Editorial: Low-risk prostate cancer. *World J Urol*, 26:411-4.
  56. Harness, J. & **McCombe, P.A.** (2008) Increased levels of activated T cells and reduced levels of CD4+CD25+ cells in peripheral blood of GBS patients compared to controls. *J Clin Neuroscience*. 15: 1031-5.
  57. Harris, R.A., Healy, G.N., **Colditz, P.B.**, **Lingwood, B.E.** (2008) Associations between serum cortisol, cardiovascular function and neurological outcome following acute global hypoxia in the newborn piglet. *Stress*. Epub
  58. Holcombe, D. J., Lengefeld, N., Gole, G. A. & **Barnett, N. L.** (2008) Selective inner retinal dysfunction precedes ganglion cell loss in a mouse glaucoma model. *Brit J Ophthalmol*, 92 5: 683-688.
  59. Holcombe, D. J., Lengefeld, N., Gole, G. A. & **Barnett, N. L.** (2008) The effects of acute intraocular pressure elevation on rat retinal glutamate transport. *Acta Ophthalmologica*, 86 4: 408-414.



60. Hughson, M.D., **Gobe, G.C.**, Hoy, W.E., Manning, R.D. Jr., Douglas-Denton, R., Bertram, J.F. (2008) Associations of glomerular number and birth weight with clinicopathological features of African Americans and whites. *Am J Kidney Dis*, 52:18-28.
61. Jackson, M.W., Gordon, T.P., & **McCombe, P.A.** (2008) Autoantibody-mediated transfer of bowel and bladder dysfunction by immunoglobulin from a patient with chronic, non-diabetic sensorimotor and autonomic neuropathy. *Muscle and Nerve* 37:537-43.
62. Kaewsuk, S., Tannenberg, R.K., Kuo, S-W., **Björkman, S.T.**, Govitrapong, P., Stadlin, A. & Dodd, P.R. (2008) Regional expression of dopamine D1 and D2 receptor proteins in the cerebral cortex of asphyxial newborn infants. *J Clin Neurol*. 24:183-93
63. Kaushal, A., Myers, S.A., Dong, Y., Lai, J., Tan, O.L., Bui, L.T., Hunt, M.L., Digby, M.R., Samaratunga, H., **Gardiner, R.A.**, Clements, J.A. & Hooper, J.D. (2008) A novel transcript from the *KLK1* gene is androgen regulated, down-regulated during prostate cancer progression and encodes the first non-serine protease identified from the human kallikrein gene locus. *Prostate*, 68:381-99
64. Kote-Jarai, Z., Easton, D., Stanford, J.L., Ostrander, E.A., Schleutker, J., Ingles, S.A., Schaid, D., Thibodeau, S., Dörk, T., Neal, D., Cox, A., Maier, C., Vogel, W., Guy, M., Muir, K., Lophatananon, A., Kedda, M-A., Spurdle, A., Steginga, S., John, E.M., Giles, G., Hopper, J., Chappuis, P.O., Hutter, P., Foulkes, W.D., Hamel, N., Salinas, C.A., Koopmeiners, J.S., Karyadi, D.M., Johanneson, B., Wahlfors, T., Tammela, T.L., Stern, M.C., Corral, M., McDonnell, S.K., Schürmann, P., Meyer, A., Kuefer, R., Leongamornlert, D., Tymrakiewicz, M., Liu, J-F., O'Mara, T., **Gardiner, R.A.**, Aitken, J., Joshi, A.D., Severi, G., English, D.R., Southey, M., Edwards, S.M., Al Olama, A.A. (2008) The PRACTICAL Consortium, Eeles RA. Multiple novel prostate cancer predisposition loci confirmed by an international study: The PRACTICAL Consortium. *Cancer Epidemiol Biomarkers Prevention (CEBP)*, 17:2052-6.
65. Landers, K.A., Samaratunga, H., **Teng, L.**, Burger, M.J., **Scells, B.**, **Lavin, M.F.** & **Gardiner, R.A.** (2008) Identification of Metastatic Markers for Prostate Cancer. *Brit J Cancer*, 99:491-501.
66. **Lavin, M.F.**, Gueven, N. & Grattan-Smith, P. (2008) Defective responses to DNA single- and double-strand breaks in spinocerebellar ataxia. *DNA Repair*. 7: 1061-1076
67. Lindsay, N.M., Healy, G.N., **Colditz, P.B.**, & **Lingwood, B.E.** (2008) Use of the Ages and Stages Questionnaire to predict outcome after hypoxic-ischaemic encephalopathy in the neonate. *J Paediatr Child Health*. 44: 590-5.
68. **Lingwood, B.E.**, Healy, G.N., Williams, S., **Pow, D.V.** & **Colditz, P.B.** (2008) MAP2 Provides Reliable Early Assessment of Neural Injury in the Newborn Piglet Model of Birth Asphyxia. *J Neuro Sci Methods*. 171: 140-6.
69. **Lingwood, B.E.**, Healy, G.N., Kecskes, Z., Dunster, K.R., Gray, P.H., Ward, L.C., & **Colditz PB.** (2008) Prediction of outcome following hypoxia/isaemia in the human infant using cerebral impedance. *Clin Neurophysiol*. Epub
70. **McCombe, P.A.** (2008) Recombinant EPF/chaperonin 10 promotes the survival of O4-positive oligodendrocyte precursors in vitro. *Cell Stress and Chaperones*. 13:467-74.
71. **McCombe, P.A.** & Read, S. (2008) Immune and inflammatory responses in stroke - good or bad? *Internat J Stroke* 3:254-65.
72. Mikhail, M.A., M'hamdi, H., Wish, J., Levicar, N., Marley, S.B., Nicholls, J.P., Habib, N.A., Louis, I.S., **Fisk, N.M.**, & Gordon, M.Y. (2008) High frequency of fetal cells within a primitive stem cell population in maternal blood. *Hum Reprod*. 23:928-33.
73. Morrison, B.J., Schmidt, C.W., **Lakhani, S.R.**, Reynolds, B.A., & Lopez J.A. (2008) Breast cancer stem cells: implications for therapy of breast cancer. *Breast Cancer Res* 10:4:210.
74. Mortimer, R. & **Lakhani, S.** (2008) Pathology in education and practice: a time for integration? *Aust Health Rev* 32:2:319-321.

75. Muzaaheed, Doi, Y., Adams-Haduch, J. M., Endimiani, A., Sidjabat, H. E., Gaddad, S. M., & **Paterson, D. L.** (2008) High prevalence of CTX-M-15-producing *Klebsiella pneumoniae* among inpatients and outpatients with urinary tract infection in Southern India, *J Antimicrobial Chemotherapy*, 61:1393-1394.
76. Nimmo, G. R., Fong, J., **Paterson, D. L.**, & McLaws, M. L. (2008) Changing epidemiology of methicillin-resistant *S. aureus* in Queensland, Australia, 2000-2006: use of passive surveillance of susceptibility phenotypes. *J Hospital Infection*, 70:305-313.
77. Nixon, R.F., Jordan, L., Zimitat, C., **Rose, S.E.**, & Zelaya, F. (2008) Choroid Plexus Dysfunction: the Initial Event in the Pathogenesis of Wernicke's Encephalopathy and Ethanol Intoxication. *Alcoholism: Clinical and Experimental Research*, 32:1513-23.
78. O'Donoghue, K., Barigye, O., Pasquini, L., Chappell, L., Wimalasundera, C., & Fisk, N.M. (2008) Interstitial laser therapy for fetal reduction in monochorionic multiple pregnancy: loss rate and association with aplasia cutis congenital. *Prenatal Diagn* 28:535-543.
79. O'Donoghue, K., Sultan, H.A., Al-Allaf, F.A., Anderson, J.R., Wyatt-Ashmead, J., & **Fisk, N.M.** (2008) Microchimeric fetal cells cluster at sites of tissue injury in lung decades after pregnancy. *Repro Biomed Online*, 16:382-90.
80. **O' Toole, J.M., Mesbah, M., & Boashash, B.** (2008) A new discrete analytic signal for reducing aliasing in the discrete Wigner-Ville distribution. *IEEE Transactions on Signal Processing*, 56: 5427-5434.
81. **O' Toole, J.M., Mesbah, M., & Boashash, B.** (2008) Efficient algorithms for discrete time frequency distributions. *World Scientific and Engineering Academy and Society (WSEAS) Transactions on Signal Processing*, 4:320-329.
82. **Paterson, D.L.** (2008) Genetic basis of multidrug resistance in *Acinetobacter baumannii* clinical isolates at a tertiary medical center in Pennsylvania. *Antimicrob Agents Chemother* 52: 3837-43.
83. **Paterson, D.L.** (2008) The molecular epidemiology of extended-spectrum beta-lactamase producing organisms. *Enfermedades Infecciosas Y Microbiologia Clinica*, 26:403.
84. **Paterson, D. L.**, David, K., Mrcic, M., Cetkovsky, P., Weng, X. H., Sterba, J., Krivan, G., Boskovic, D., Lu, M., & Zhu, L. P. (2008) Pre-medication practices and incidence of infusion-related reactions in patients receiving AMPHOTEC: data from the Patient Registry of Amphotericin B Cholesteryl Sulfate Complex for Injection Clinical Tolerability (PRoACT) registry. *J Antimicrobial Chemotherapy*, 62:1392-1400.
85. **Paterson, D. L.**, Muto, C. A., Ndirangu, M., Linden, P. K., Potoski, B.A., Capitano, B., Bonomo, R. A., Aron, D. C., & Donskey, C. J. (2008) Acquisition of rectal colonization by vancomycin-resistant *Enterococcus* among intensive care unit patients treated with piperacillin-tazobactam versus those receiving cefepime-containing antibiotic regimens. *Antimicrob Agents Chemother*, 52:465-469.
86. **Percy, C.**, Brown, L., Power, D.A., Johnson, D., & Gobe, G. (2008) Obesity and hypertension have differing oxidant handling molecular pathways in age-related chronic kidney disease. *Mech. Ageing Dev.* Epub.
87. **Percy, C.**, Pat, B., Healy, H., Johnson, D., & Gobe, G. (2008) Phospho-caveolin-1 has an anti-apoptotic and pro-adhesion role during oxidative stress of kidney cells. *Pathology*, 40: 694-701.
88. **Percy, C.J.**, Power, D., & **Gobe, G.C.** (2008) Renal ageing: changes in the cellular mechanism of energy metabolism and oxidant handling. *Nephrology*, 13:147-152.
89. Perkins, L., Hughes, E., Srinivasan, L., Allsop, J., Glover, A., Kumar, S., **Fisk, N.M.**, & Rutherford, M. (2008) Exploring cortical subplate evolution using magnetic resonance imaging of the fetal brain. *Dev Neuroscience*. 30:211-20.

90. Pettigrew, C.A., French, J.D., **Saunus, J.M.**, Edwards, S.L., Sauer, A.V., **Smart, C.E.**, Lundstrom, T., Weisner, C., Spurdle, A.B., Rothnagel, J.A., Brown, M.A. (2008) Identification and functional analysis of novel BRAC1 transcripts, including mouse Brac-1-Iris and human pseudo-BRAC1. *Breast Cancer Res Tr.* 9 Dec 08 [e-pub ahead of print].
91. **Pettit, A.R.**, Hume, D.A., & **Raggatt, L.J.** (2008) Re: Structural and cellular differences between metaphyseal and diaphyseal periosteum in different-aged rats. *Bone*, 42, 825-6.
92. **Pettit, A.R.**, Chang, M.K., Hume, D.A., & **Raggatt, L.R.** (2008) Osteal Macrophages: A new twist on coupling during bone dynamics. *Bone*, 43, 976-82.
93. **Pow, D.V.** & Diaz, C.M. (2008) AMD-like lesions in the rat retina: A latent consequence of perinatal hemorrhage. *Investigative Ophthalmology & Visual Science*, 49 7: 2790-2798.
94. **Pritchard, M.A.**, **Colditz, P.B.**, Tudehope, D., Gray, P., Cartwright, D., Wigg, N., & Beller, E.M. (2008) For the Queensland Optimising Preterm Infant Outcomes Group. A preterm-targeted screening program for measuring sensorineural status in a primary health setting: A randomised controlled trial. *J Paediatr Child Health* 44 (7-8): 424-31.
95. Ripoll, V.M., Meadows, N.A., **Raggatt, L.J.**, Chang, M.K., **Pettit, A.R.**, Cassady, I. & Hume, D.A. (2008) Microphthalmia Transcription Factor Regulates the Expression of the Novel Osteoclast Factor GPNMB. *Gene*, 413, 32-41.
96. **Rose, S.E.**, Hatzigeorgiou, X., Strudwick, M.W., Durbridge, G., Davies, P.S., & **Colditz, P.B.** (2008) Altered white matter diffusion anisotropy in normal and preterm infants at term equivalent age. *Magn Reson Med.* 44: 590-5.
97. **Rose, S.E.**, Janke, A.L., & Chalk, J.B. (2008) Grey and white matter changes in Alzheimer's disease: A diffusion tensor imaging study. *J Magn. Reson Imaging*, 27:20-6.
98. Sanghavi, S. K., Abu-Elmagd, K., Keightley, M. C., St George, K., Lewandowski, K., Boes, S. S., Bullotta, A., Dare, R., Lassak, M., Husain, S., Kwak, E. J., **Paterson, D. L.**, & Rinaldo, C. R. (2008) Relationship of cytomegalovirus load assessed by real-time PCR to pp65 antigenemia in organ transplant recipients., *J Clin Virol*, 42:335-342.
99. Santos, M.A., O'Donoghue, K., Wyatt-Ashmead, J., & **Fisk, N.M.** (2008) Fetal cells in the maternal appendix: a marker of inflammation or fetal tissue repair? *Hum Reprod*, 23:2319-25.
100. Steginga, S.K., Baade, P.B., Williams, S.G., **Gardiner, R.A.**, & Fitzpatrick, J.M. (2008) Whether to test for prostate cancer. *BJU International, FingerTip Urology*, [www.BJUI.org](http://www.BJUI.org)
101. Shin, S.J., **Simpson, P.T.**, **Da Silva, L.**, **Jayanthan, J.**, **Reid, L.**, **Lakhani, S.R.**, & Rosen, P.P. (2008) Molecular evidence for progression of microglandular adenosis (MGA) to invasive carcinoma. *Am J Surg Pathol*, Nov 26 . Epub
102. Silveira, F. P., Kwak, E. J., **Paterson, D. L.**, Pilewski, J. M., McCurry, K. R., & Husain, S. (2008) Post-transplant colonization with non-Aspergillus molds and risk of development of invasive fungal disease in lung transplant recipients, *J Heart Lung Transplantation*, 27:850-855.
103. Skene, L., Kerridge, I., Marshall, B., **McCombe, P.**, & Schofield, P. (2008) Developing Policy through Commitment to Moral Values, Community and Democratic Processes through Community Consultation: The Lockhart Committee's Review of Human Cloning and Research involving Human Embryos. *Journal of Law and Medicine*, 16:132-138.
104. **Smart, C.E.**, Clarke, C., Brooks, K.M., Raghavendra, A., Brewster, B.L., French, J.D., Hetherington, R., Fleming, J.S., Rothnagel J.A., Wainwright, B., **Lakhani, S.R.**, Brown, M.A. (2008) Targeted disruption of Brca1 in restricted compartments of the mouse mammary epithelia. *Breast Cancer Research Treatment*, 112 2: 237-241.

105. Smith, J., Plaat, F., & **Fisk, N.M.** (2008) The natural caesarean: a woman-centred technique. *Br J Obstet Gynaecol*, 115:1037-42.
106. Steginga, S.K., Ferguson, M., Clutton, S., **Gardiner, R.A.**, Nicol, D. (2008) ProsCan: A novel early intervention for men with localised prostate cancer. *Supportive Care in Cancer*, 16:821-9
107. Wayte, N., **Da Silva, L.**, Chenevix-Trench, G., **Lakhani S.R.** (2008) What's in a cancer syndrome? Genes, phenotype and pathology. *Pathology* 40:247-259.
108. Webster, P. S., Oleson, F. B., Jr., **Paterson, D. L.**, Arkin, C. F., Mangili, A., Craven, D. E., Adcock, D. M., Lindfield, K. C., Knapp, A. G., Martone, W. J. (2008) Interaction of daptomycin with two recombinant thromboplastin reagents leads to falsely prolonged patient prothrombin time/International Normalized Ratio results, *Blood Coagulation and Fibrinolysis*, 19: 32-38.
109. Wu, A.C., **Pettit, A.R.**, Toulson, S., Grondahl, L., Mackie, E.J. Cassady, A.I. (2008) Responses *in vivo* to purified poly(3-hydroxybutyrate-co-3-hydroxyvalerate) implanted in a murine tibial defect model. *Journal of Biomedical Materials Research, Part A*. Dec 8, epub ahead of print (DOI: 10.1002/jbm.a.32238).
110. Yamane, K., Rossi, F., Barberino, M. G., Adams-Haduch, J. M., Doi, Y., **Paterson, D. L.** (2008) 16S ribosomal RNA methylase RmtD produced by *Klebsiella pneumoniae* in Brazil, *J Antimicrobial Chemotherapy*, 61:746-747.
111. **Yan, J.**, & **Greer, J.M.** (2008) NF- $\kappa$ B, a potential therapeutic target for the treatment of multiple sclerosis. *CNS & Neurological Disorders-Drug Targets* 7:536-557.

## Books and Book Chapters

1. **Barnett, N. L.** & Bull, N. D. (2008) Glutamate transporters: retinal disease and regulation, in *Ocular Transporters In Ophthalmic Diseases and Drug Delivery*. Tombran-Tink, J. and Barnstable, C.J. Eds. Humana Press. Totowa, New Jersey. p. 333-354
2. Engineer, N., & **Fisk, N.M.** (2008) Multiple pregnancy. In: *Fetal Medicine Basic Science and Clinical Practice*, 2nd ed. CH Rodeck, MJ Whittle (eds). pp.649-77 London: Elsevier Ltd.
3. Sarthy, V. & **Pow, D.V.** (2008) Excitatory Amino Acid Transporters in the Retina. In "Ocular transporters in Ophthalmic diseases and drug delivery" (Humana Press, editors Tombran-Tink, J., and Barnstable, C.)
4. **Barnett, N. L.** and Bull, N. D. (2008) Glutamate transporters: retinal disease and regulation, in *Ocular Transporters In Ophthalmic Diseases and Drug Delivery*. Tombran-Tink, J. and Barnstable, C.J. Eds. Humana Press. Totowa, New Jersey. p. 333-354

Group Leaders and their groups

Prof Paul Colditz is a group head, Clinical Neuroscience Lab, UQCCR and Director of Director of the Perinatal Research Centre and is the Foundation Professor of Perinatal Medicine at the University of Queensland. He has professional qualifications in paediatrics, biomedical engineering and medical research. His enthusiasm and passion are key to his numerous research projects, spanning laboratory research on brain development, hypoxia and rescue strategies through clinical neurodevelopment to public health and health advancement in children.



Prof David Pow graduated and completed his doctorate at University of Newcastle-upon-Tyne and his group conducts research in four main areas: (i) The role of micro-haemorrhage in long term nervous system degenerations, including age related macular degeneration). (ii) The role of amino acid transporters in development, health and disease, particularly in the developing neonatal brain. (iii) The homeostasis of the NMDA receptor co-agonist D-serine, and (iv) neuronal remodelling in the aged and damaged retina.

**Colditz and Pow Groups:**


Postdoctoral Research Fellows: Susan Sullivan Aven Lee Alison Holm Tracey Bjorkman Kathryn Buller Leith Lester Barbara Lingwood Nigel Barnett Mostefa Mesbah	Perinatal trialist/Post doc: Margo Pritchard  Research Officers: Yvonne Eiby  Visiting Academics: Janet Hammill  General staff: Brooke Dougan Amanda Barnett PA to Prof Colditz	Research Assistants: Robert Wright Julie Wixey Hanna Reinebrant Sue Callan Ian Clough Lisa Wallis Steph Miller  APA Scholar: Gayle Hemsley	PhD Students: Doreen Awabdy Elizabeth Gray Viskasari Kalanjati Michelle Carty Mohamed Khlif Anh Tran Min Young Kim John O'Toole Sonia Dann Amanda Fullerton Tom Harris
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Dr David Copland is a speech pathologist and a Senior Research Fellow conducting research in the areas of language neuroscience, psycholinguistics, and neurogenic communication disorders. Specifically his interests include (1) language processing following stroke, and in Parkinson's disease, schizophrenia, and Huntington's disease, and (2) investigating the neural and functional architecture of the language faculty, recovery from stroke, neurochemical modulation of language, and language in schizophrenia, using functional MRI, event-related potentials, and divided visual field tasks.

**Copland Group:**

Postdoctoral Research Fellows: Anna Holmes Samantha Clarke	PhD Students: Shiree Heath Carole Greig
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<p>Associate Professor Camile Farah graduated from the University of Western Australia, and practiced dentistry on a part-time basis while completing a PhD in Oral Pathology &amp; Immunology, and subsequently an MDS in Oral Medicine &amp; Pathology at the University of Queensland. His clinical interests lie in oral mucosal disease, salivary gland dysfunction, and oro-facial pain. He has a keen interest in new diagnostic techniques employed in oral cancer detection and screening, and is conducting clinical and molecular research in this area funded by the NHMRC and ADRF. Associate Professor Farah is interested in virtual microscopy and digital radiology, and is currently undertaking research in these areas funded by the Australian Learning and Teaching Council.</p>	
<b>Farah Group:</b>	
<p>Post Doctoral Research Fellows:</p>	<p>PhD Students:</p>
<p>Terry Maybury Jodi Saunus</p>	<p>Tess Matias Sandra Stein Ahmad Abdul Majeed Glenn Francis</p>
<p>Research Assistant: Tiffany Young</p>	<p>Honours students:</p>
<p>General Staff: Margot Dallinger Research Admin Officer Anthony Chan Histology Technician</p>	<p>Sarah Zhao Jenny Wang Nick Lynch Kate Amos, Julijana Nikolovski</p>
<p>PhD Student/Clinician: Phan Ngyuen</p>	

	<p>Prof Nicholas Fisk is a maternal-fetal medicine specialist / high risk obstetrician at the Royal Brisbane &amp; Women's Hospital. Between 1992-2007 he was Professor of Obstetrics /Fetal Medicine at Imperial College &amp; Queen Charlotte's Hospital, London, where his laboratory and clinical research program achieved an international reputation in fetal diagnosis and treatment. His main research interests have been in human fetal mesenchymal stem cell biology and monochorionic multiple pregnancy, but also spanned non-invasive prenatal diagnosis, fetal nociception, caesarean section, preterm labour, obstetric ultrasound and drug development in obstetrics. His group tracks how fetal stem cells persist and repair tissues in women after pregnancy and how they can be transplanted in utero to treat debilitating congenital diseases.</p>
<b>Fisk Group:</b>	
<p>Postdoctoral Research Fellows:</p>	<p>Research Assitants:</p>
<p>Allison Pettit Liza Raggatt Michael Ting Jennifer Ryan</p>	<p>Erin Maylin</p> <p>Collaborating Clinicians: Carol Portmann Greg Duncombe Rob Cincotta</p>

<p>Associate Professor Glenda Gobe is Associate Professor of Molecular and Cellular Pathology in the School of Medicine and a research Group Leader at UQCCR. Her research has always pushed the link between basic science and clinical research and collaborations with the biomedical community. She is known internationally for her expertise in apoptosis, or programmed cell death, and for her translational research towards understanding and treating acute and chronic kidney disease and kidney cancer.</p>		
<b>Gobe Group:</b>		
<p>Laboratory Manager: Nigel Bennet</p>	<p>Research Officers: David Vesey Renee Stirling</p>	<p>PhD Students: Michael McErlean</p>
<p>Visiting Academic: Ken Wojcikowski</p>	<p>Research Assistants: Gabriel Friel</p>	<p>Christine Percy Miko Yamada Retnagowri Rejandram Caroline Clark</p>

Dr Judith Greer is a graduate of the University of Queensland who completed her PhD on cancer immunology in 1991. Her research is directly particularly towards trying to identify brain components that are targetted by the immune system in people with multiple sclerosis, in determining how immune responses within the nervous system relate to the symptoms experienced by people with Multiple Sclerosis, and in developing new ways to specifically turn off the damaging immune responses in the brain. Much of her work focusses on the most abundant myelin protein, myelin proteolipid protein.



Associate Professor Pamela McCombe graduated in Medicine from UQ, then trained as a neurologist in Sydney, followed by a PhD at the University of Sydney. Overseas experience in Neurophysiology in Cleveland was followed by post-doctoral fellowship at UQ. Since then, has been at UQ as research fellow, NHMRC SRF, and currently Associate Professor. Her research areas include Motor Neurone Disease and Multiple Sclerosis.

**Greer and McCombe Groups:**

Research Fellow: Fusun Baumann	Research Assistants: Hayley Inglis Casey Pfluger	PhD Students: Leif/Evan Sauer Amanda Jones Diane Muller Shannon Beasley
Senior Research Officer: Jun Yan	Research Nurse Kaye Hooper	Honours Student Nancy Moxey
Research Officer: Peter Csurhes		


Prof Martin Lavin is a Group Leader at UQCCR and also has an appointment as Deputy Director of Queensland Institute of Medical Research. Martin's major areas of research are centred on the genetics and biology of the human genetic disorder ataxia-telangiectasia (A-T), isolation of novel compounds from snake venoms important in haemostasis and in collaboration with Prof Gardiner, the early detection of prostate cancer.





Prof Robert Gardiner is a Group Leader at UQCCR and also has an appointment as Urology Surgeon at Royal Brisbane and Women's Hospital. His current research projects include the early diagnosis of prostate cancer by molecular profiling and MALDI-TOF spectrometry of prostatic fluid, elucidating the structure and function of PCA3 and BMCC1 and their isoforms in prostate cancer and predicting and promoting long-term psycho-social adjustment of men and their partners following diagnosis and treatment of localised prostate cancer.

**Lavin and Gardiner Group**

Postdoctoral Research Fellows: Liam St Pierre Stephen Earl Renee Stirling Kong Nan Zhao	Clinical Research Assistants: Betty Scells Shona McKenzie
Research Assistants: Marion Buck Linda Teng	Collaborating Clinicians: Geoff Coughlin John Yaxley Troy Gianduzzo Hema Samaratunga

<p>Prof David Paterson is newly appointed Professor of Medicine at UQ and is also currently a Consultant Infectious Diseases Physician at the Royal Brisbane and Women's Hospital, Consultant Microbiologist for Pathology Queensland and medical director of the Centre for Healthcare Related Infection Surveillance and Prevention (CHRISP). David has a special interest in the epidemiology, detection, characterization and treatment of multiply resistant Gram negative bacilli. Additionally, his clinical expertise is in managing infections in critically ill and immunocompromised patients.</p>	
<p><b>Paterson Group</b></p>	
<p>Research Officer: Claire Heney</p> <p>Visiting Academics: Fatimah Haslina Abdullah Ahmao Kashei Ab Kahman</p>	<p>PhD Students: Yoshiro Hayashi Baba Hasashi Baek-Nam Kim</p> <p>General Staff: Emma Lee, PA to Prof Paterson</p>

<p>Sunil Lakhani is Professor and Head of Molecular &amp; Cellular Pathology in The School of Medicine, University of Queensland. He heads the Breast Pathology Research Group at UQCCR and collaborates with the Queensland Institute of Medical Research (QIMR) where he is also a Principal Senior Research Fellow. Sunil is also a Visiting Specialist at Queensland Health Pathology Service and an affiliate of The Ludwig Institute for Cancer Research (LICR). His research interests include investigating genetic alterations in normal breast tissue, myoepithelial breast cancers and molecular pathology of familial breast cancers.</p>	
<p><b>Lakhani Group</b></p>	
<p>Postdoctoral Research Fellows: Chanel Smart Peter Simpson</p> <p>Clinical Fellow/PhD Student: Ana Cristina Vargas Calderon</p> <p>General Staff: Mason Brenda PA to Prof Lakhani</p>	<p>Research Officers: Keith Patricia Lynne Reid Janani Jayanthan Annette Lane</p> <p>Senior Lecturer: Leonard Da Silva Pria Pakkiri Prof Anne Marie McNicol (Visiting)</p>

	<p>Associate Professor Stephen Rose is a graduate and PhD scholar of UQ. His current interests are focused towards the development and application of novel Magnetic Resonance Imaging (MRI) and spectroscopy (MRS) methodologies in the fields of medical and biomedical research. These areas of interest include the study of the evolution of stroke in humans with diffusion and perfusion weighted MRI, longitudinal MR study of patients with Alzheimer's disease and developing sensitive MRI markers of early treatment response in patients with brain tumours. He also has a significant interest in the application of MRI diffusion tractography to study white matter connectivity changes associated with brain injury and neurological disease processes</p>
<p><b>Rose Group</b></p>	
<p>Research Officer: Kerstin Pannek</p>	<p>PhD Students: Abdul Sayyari Justin Oughton Emma Bendall</p>



## Associate Investigators and their teams



Associate Professor Gerard Byrne is Head of the Discipline of Psychiatry within the School of Medicine at the University of Queensland and Director of Geriatric Psychiatry at the Royal Brisbane and Women's Hospital. His primary research interests include Alzheimer's disease (particularly the neuropsychiatric symptoms associated with AD), and personality, anxiety and depression in older people. Gerard's team in UQCCR includes Elizabeth Arnold, Research Nurse.

Paul Hodges is a physiotherapist and leading UQ research professor who is interested in neuromotor control of movement and stability, and changes in this system with pain. His current research interests include:

- Physiology and pathophysiology of movement control mechanisms.
- Integration of neuroscience and biomechanics to investigate the nervous system control of joint stability and movement.
- Effect of conflicting task demands control on spinal control.
- Biomechanical effect of contraction of intrinsic spinal muscles on stability of the spine.
- The effect of pain on motor control and possible mechanisms.
- Mechanism of efficacy of therapeutic exercise.

Paul's team at UQCCR includes Research Assistant Ryan Stafford and two PhD Students David MacDonald and Wolly Van de Hoorn.



Prof Jeff Lipman is Executive Director of the Burns Trauma and Critical Care Research Centre, Director of Department of Intensive Care, Royal Brisbane Hospital and Professor of Anesthesiology & Critical Care, University of Queensland. His research interests include all aspects of management in intensive care, resuscitation of burns and pharmacokinetics of antibiotic dosage in which he recently completed his MD. His research into antibiotic usage in acute situations has received international recognition.

Jeff's team at UQCCR includes Research Fellow Andrew Dalley; Clinical Fellow Hamza Mahmoud; PhD Graduate Jason Roberts; Students of Research Suhasini Singh and Paula Jeffries; PhD students Julie Varghese, Paul Gray, Brooke Winzer and Julian Williams; Research Manager Sia Athanasas-Platsis; and Lab Manager Steve Wallis.

Professor Silburn graduated from the University of Queensland in 1988 and trained in Neurology at Princess Alexandra Hospital and in Oxford at the Radcliffe Infirmary. His particular research interests are:

- Neurodegenerative disorders of the brain in particular Parkinson's Disease and related disorders.
- Movement Disorders in general and innovative therapies including botulinum toxin, neurosurgery, stem cells and gene therapies.

He has developed an internationally recognised programme in deep brain stimulation therapy.



Philip Walker is an Associate Professor of Surgery in the Department of Surgery at the University of Queensland and a consultant vascular surgeon and the Director of the Vascular Laboratory at the Royal Brisbane and Women's Hospital. His Peripheral Vascular Research Group's interests range from basic science investigations through to clinical trials. The group's activities focus on the aetiology and management of aortic aneurysmal disease, muscle metabolism and exercise physiology, and non-operative management strategies in peripheral arterial disease, carotid stenosis, infectious agents in the aetiology of atherosclerosis, vascular imaging, and the evaluation of endovascular technologies.

Philip's team at UQCCR includes Michel Hoenig, an NHMRC medical Scholar.



Dr Zankl studied medicine in Germany and specialised in Medical Genetics in Switzerland. He moved to Australia in 2006 where he is a staff specialist at Genetic Health Queensland, a Senior Lecturer at UQ and an Associate Investigator at UQCCR. His research interests are skeletal dysplasias and he is the clinical co-ordinator of the European Skeletal Dysplasia Network, a member of the International Skeletal Dysplasia Society and of the International Working Group on the Classification of Constitutional Disorders of Bone. His current work focuses on studying the natural history of bone dysplasias, bioinformatic methods for the classification of bone dysplasias and the genetic mechanisms of osteolysis syndromes. His team at UQCCR includes Jordan Young who works as the Coordinator for the Qld Bone Dysplasia Registry.

## General Staff

Tracey	Henshaw	Centre Manager
Greg	Young	Infrastructure & Laboratory Manager
Anthony	Fowler	Laboratory Coordinator
Linda	McVann	Laboratory Coordinator
Vicki	Allen	Clinical Coordinator
Carmen	Buttery	Research Grants Administrator
Elizabeth	Slowey	Executive Assistant to Director
Alix	Vann	Receptionist
Zoe	Ackerman	Store Manager
Nick	Emery	Scientific Assistant
Ray	Deller	Maintenance Manager
Alf	Roset	Electrical Supervisor

## Research Degrees Completed

## DOCTOR OF PHILOSOPHY

	Supervisor	Project Title	Completion Date
<b>Thomas Harris</b>	Dr Barbara Lingwood	The identification of hypoxic tolerance factors in the newborn piglet and their role in neural injury following global hypoxic insult	30/07/2008
<b>Jason Roberts</b>	Prof Jeffery Lipman	Beta-lactam antibiotic dosing in critical care units: Bolus vs continuous dosing	01/10/2008
<b>Rebecca Jack</b>	A/Prof Philip Walker	Necessity and Technical Adequacy of Vascular Ultrasound Scans	13/01/2008
<b>Andrew Wong</b>	Dr Jonathan Chalk	The Natural History and Determinants of Changes in Physiological Variables after Ischaemic Stroke	15/09/2008
<b>Amila Suraweera</b>	Prof Martin Lavin	Senataxin and Its Role in an Ataxia Oculomotor Apraxia Type 2	05/06/2008

## Research Degrees On-going

## DOCTOR OF PHILOSOPHY

	Supervisor	Project Title	Commencement Date
<b>Carole Anne Greig</b>	Dr David Copland	The impact of intention and attention on the naming ability of adults with fluent and non-fluent aphasia	05/02/2008
<b>Shiree Heath</b>	Dr David Copland	Neurocognitive substrates of naming facilitation in aphasia	04/02/2008
<b>Erin Smith</b>	Dr David Copland	Hemispheric contributions to language: A divided visual field investigation of semantic processing following unilateral lesions	21/02/2005
<b>Ahmad Abdul Majeed</b>	A/Prof Camile Farah	Alterations in Gene Expression during the Early Stages of Oral Carcinogenesis	04/08/2008
<b>Glenn Francis</b>	A/Prof Camile Farah	Protein expression and molecular profiling using tissue microarrays to predict lymph node status in breast cancer	04/07/2007
<b>Sandra Stein</b>	A/Prof Camile Farah	The utilization of molecular biomarkers to predict trastuzumab resistance in epithelial breast cancer patients	01/07/2007
<b>Nigel Bennett</b>	A/Prof Glenda Gobe	Mechanisms of androgen receptor-mediated transcription in prostate cancer progression: interactions with caveolin-1	20/08/2007
<b>Jun Li</b>	A/Prof Glenda Gobe	Protein kinase C isoforms in the suppression of apoptosis in renal cell carcinomas	31/07/2003

<b>Christudais Morais</b>	A/Prof Glenda Gobe	Exploring the anticarcinogenic potential of pyrrolidinedithio carbamate, a nuclear factor kappaB inhibitor on renal cell carcinoma	01/12/2003
<b>Christine Percy</b>	A/Prof Glenda Gobe	Role and modulation of oxidative stress in age-associated chronic renal pathologies	23/08/2004
<b>Retnagowi Rajandram</b>	A/Prof Glenda Gobe	Targeting genes for identification and treatment of renal cell carcinoma	13/02/2006
<b>Kenneth Wojcikowski</b>	A/Prof Glenda Gobe	Medicinal Herbs and the Kidney: Unresolved Issues	27/10/2003
<b>Miko Yamada</b>	A/Prof Glenda Gobe	Mechanisms of cytoprotection by erythropoietin (EPO) in hypoxia/ischaemia-injured neonatal brain	31/08/2005
<b>Jatin Patel</b>	A/Prof Glenda Gobe	Molecular mechanisms comparing ischaemia-reperfusion injury in the heart and kidney and cytoprotection by erythropoietin	29/08/2008
<b>Shannon Beasley</b>	Dr Judith Greer	Role and mechanism of action of myelin-specific antibodies from multiple sclerosis patients	03/02/2003
<b>Amanda Jones</b>	Dr Judith Greer	Autoimmunity in schizophrenia	22/04/2003
<b>Diane Muller</b>	Dr Judith Greer	Neuropathological and Neurophysiological Studies of the Central Nervous System of mice with Atypical Experimental Autoimmune Encephalomyelitis	01/01/1998
<b>Evan Sauer</b>	Dr Judith Greer	Study of Potential Therapeutic Agents in Multiple Sclerosis	18/02/2002
<b>Kee Meng Tan</b>	Dr Judith Greer	Neuronal voltage-gated potassium channel and voltage-gated sodium channel autoimmunity	31/08/2007
<b>Gayle Hemsley</b>	Prof Barbara J Dodd	Language learning outcomes in early sequential bilinguals	16/01/2006
<b>Sally Kedge</b>	Prof Barbara J Dodd	The language profiles of children with severe and challenging behaviour and emotional difficulties	06/02/2006
<b>Kwai Mok</b>	Prof Barbara J Dodd	Evaluation of a problem-based learning curriculum in speech and hearing sciences: Student perceptions and critical thinking	01/08/2005
<b>Anton Peleg</b>	Prof David Paterson	The Perils and Pearls of Acinetobacter - an emerging gram-negative pathogen	01/09/2006
<b>Susan Morpheth</b>	Prof David Paterson	Salmonella infection in developing countries	21/07/2008
<b>Paul Gray</b>	Prof Jeffrey Lipman	Neuropathic pain following burn injury: An examination of mechanism and treatment in the pre-clinical model and in the clinical	19/01/2004

		setting	
<b>Julie Varghese</b>	Prof Jeffrey Lipman	Altered pharmacokinetics in CWHDF – using plasma and tissue antibiotic concentrations to optimize dosing of beta-lactam antibiotics	29/08/2008
<b>Julian Williams</b>	Prof Jeffrey Lipman	The sepsis registry: a prospective database to characterise and facilitate improved outcome for admitted patients with community acquired infection	01/11/2008
<b>Ana Cristina Vargas Calderon</b>	Prof Sunil Lakahuni	Mechanisms of metastases in lobular carcinomas of breast	21/07/2008
<b>Teong Chuah</b>	Prof Martin Lavin	Gene Therapy For Glioblastoma Multiforme: A Novel Treatment For a Fatal Disease	29/01/2001
<b>Stephen Earl</b>	Prof Martin Lavin	Analysis of Australian elapid snake venoms for the discovery and development of new human therapeutics.	09/02/2004
<b>Patricia Keith</b>	Prof Martin Lavin	Identification of Overexpression of O-catenin in Prostate Cancer using Microarray and Real-time Quantitative PCR	01/07/2001
<b>Stephanie Miller</b>	Dr Stella Bjorkman	Examining the maturation of the GABA system in the neonatal brain and its role in hypoxic ischaemic brain injury	14/04/2008
<b>Michelle Carty</b>	Dr Kathryn Buller	Neuroanatomical changes under-pinning functional deficits after hypoxic-ischaemic injury in the pre-term brain	27/02/2006
<b>Doreen Awabdy</b>	Prof Paul Colditz	Neuroprotection and Neuroreceptor Ontogeny in the Developing Brain	11/03/2002
<b>Mark Davies</b>	Prof Paul Colditz	Partial Liquid Ventilation (PLV) Optimisation for use in Pre term Infants	01/02/1999
<b>Luke Jardine</b>	Prof Paul Colditz	Development of early predictors of long-term outcome in premature infants	17/04/2006
<b>Viskasari Kalanjati</b>	Prof Paul Colditz	Brain development, hypoxia and nutrient deprivation	15/06/2006
<b>Mohamed Khlif</b>	Prof Paul Colditz	Multi-channel time-frequency analysis for EEG neonatal seizure characterization	12/01/2006
<b>John O'Toole</b>	Prof Paul Colditz	Design and implementation of a high performance time-frequency distribution for EEG newborn diagnosis	01/01/2006
<b>Patricia Gray</b>	Dr Barbara Lingwood	Cardiovascular function in the pre-term neonate	18/02/2008
<b>Melanie Reiter</b>	Prof Robert Gardiner	T-cell Immuno competence after Immunotherapy Vaccination for the Treatment of Prostate Cancer	24/03/2003
<b>Kylie Alexander</b>	Dr Allison Pettit	Osteoimmunologic mechanisms in bone pathology	06/03/2006

<b>Emma Bendall</b>	A/Prof Stephen Rose	Magnetic Resonance Imaging Studies in Nervous Tissue Trauma	01/06/1997
<b>Justin Oughton</b>	A/Prof Stephen Rose	The Relationship of Vascular Compliance to Cerebral White Matter Hyperintensities in a Community Based Sample of Aging Australian Women	01/07/2005
<b>Abdulrahi Al Sayyari</b>	A/Prof Stephen Rose	Development of Novel MRI Biomarkers for early detection of tumour recurrence	01/12/2006
<b>Michel Hoenig</b>	A/Prof Philip Walker	The use of cholestanol to cholesterol ration to guide therapy: LDL lowering. The target LDL study	27/02/2006

### **MASTER OF PHILOSOPHY**

<b>Kelvin Lim</b>	Prof Sunil Lakhani	Correlation between immunohistochemical profile and molecular biology with diagnosis, clinical outcome and prognosis in salivary gland tumours	01/10/2005
<b>Quang Tran</b>	Prof Paul Colditz	Septicaemia in the newborn: A comparison of Neonatal Infection Rates at Royal Brisbane & Women's Hospital, Australia and Danang, Vietnam and suggested strategies for reducing the risk of sepsis	28/03/2007
<b>Indra Nordstrand</b>	A/Prof Philip Walker	Assessment of cardiac myxoma tumour markers and identification of a cellular basis for the use of antithrombotic agents in management	01/12/2003

## Seminar Series

The UQCCR fortnightly Seminar Series is widely publicised around the Herston site and aims to showcase a monthly external speaker. Speakers in 2008 included:

- Professor Bin The, Director of the Van Andels Research Institute International in Michigan and the National Cancer Centre of Singapore
- Dr Virginia Barbour, Editor of PLoS Medicine
- Dr George Bou Gharios, Imperial College, London
- Professor John Rasko, Centenary Institute, Sydney
- Professor John Golledge, James Cook University

## Engagement

The UQCCR meeting spaces have also become a focal point for seminars, meetings and conferences at the Herston site. In 2008 we were pleased to host:

- The Australian e-Health Research Centre 2008 Conference
- National Aging 2008 Conference
- Inaugural meeting of the IEEE Queensland EMB Chapter
- Queensland Health Pathology Grand Rounds
- A visit from the Executive of the Australian Health Workforce Institute
- Queensland Branch of the Australian Association of Clinical Biochemists Meeting
- Queensland Health Workplace, Culture & Leadership Workshops

Atlantic Philanthropies and the Queensland State Government partnered with the University of Queensland to fund UQCCR, and thus are major stakeholders.

Operationally, UQCCR is a university level centre within the Faculty of Health Sciences.

Queensland Health is our major partner. UQCCR is sited on land owned by QH, between their major facilities Pathology Queensland and the Royal Brisbane & Women's Hospital. QH employs a number of staff located within the building, provides clinical support services to UQCCR's outpatient floor, and hosts the research teams for several QH clinicians who hold Associate Investigator status with UQCCR.

UQCCR joined the Queensland Clinical Trials Network (QCTN) <http://www.qctn.com.au/> in 2008.

The building currently also houses:

- The Australian eHealth Research Centre <http://e-hrc.net/>
- Queensland Health's Centre for Healthcare Related Infection Surveillance & Prevention (CHRISP) <http://www.health.qld.gov.au/chrisp/default.asp>
- Royal Brisbane & Women's Hospital's Centre for the Advancement of Clinical Research [http://www.health.qld.gov.au/rbwh/research/advclinical\\_research.asp](http://www.health.qld.gov.au/rbwh/research/advclinical_research.asp)



## Contact Details

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