

# Internal Medicine Services



**Kate Mason**  
Acting Executive Director  
Internal Medicine Services



**Sandy Jamieson**  
Acting Nursing Director  
Internal Medicine Services

## Overview

Internal Medicine Services has a commitment to academic medicine, with areas of outstanding research productivity.

To support our research there are strong links with the Queensland Institute of Medical Research (QIMR), The University of Queensland Centre for Clinical Research (UQCCR), The University of Queensland (UQ) School of Medicine, Queensland University of Technology (QUT) and a range of other research partners.

Nursing and health professionals actively participate in evidenced-based practice and multidisciplinary research across the service line. In most areas of Internal Medicine Services Research, assistant roles are filled by highly skilled nursing staff.

We are proud of the fact that over the last year, we had a continual increase in publications and an increase in the value of the research grants. This is a testament to the dedication, curiosity and persistence of our staff. The most important benefit of this is that we know that the best patient care occurs in centres where there is a strong culture of research.

## Key departments

- » Department of Cardiology
- » Department of Clinical Immunology and Allergy
- » Department of Clinical Pharmacology
- » Department of Dermatology
- » Department of Endocrinology
- » Department of Gastroenterology and Hepatology
- » Genetic Health Queensland
- » Infectious Diseases Unit
- » Department of Internal Medicine and Aged Care/Obstetric Medicine Unit
- » Department of Neurology
- » Department of Nuclear Medicine/Queensland PET Service
- » Palliative Care Service
- » Department of Pharmacy
- » Department of Renal Medicine
- » Department of Rheumatology
- » Department of Thoracic Medicine

## Executive and directing staff

**Kate Mason**  
Acting Executive Director  
Internal Medicine Services

**Sandy Jamieson**  
Acting Nursing Director  
Internal Medicine Services

**Assoc. Prof. John Atherton**  
Director, Cardiology

**Dr Roger Prentice**  
Director, Clinical Immunology and Allergy

**Dr Paul Kubler**  
Director, Clinical Pharmacology

**Dr Ivan Robertson**  
Director, Dermatology

**Assoc. Prof. Michael d'Emden**  
Director, Endocrinology

**Dr Mark Appleyard**  
Director, Gastroenterology and Hepatology

**Assoc. Prof. Julie McGaughran**  
Director, Genetic Health Queensland

**Assoc. Prof. Tony Allworth**  
Director, Infectious Disease

**Assoc. Prof. Charles Denaro**  
Director, Internal Medicine and Aged Care

**Dr Andrew Wong**  
Director, Neurology and Stroke Services

**Dr Carol Douglas**  
Clinical Director, Palliative Care

**Assoc. Prof. Ian Coombes**  
Director, Pharmacy

**Dr Helen Healy**  
Director, Renal Medicine

**Dr Paul Kubler**  
Director, Rheumatology

# Department of Cardiology



**Assoc. Prof. John Atherton**  
Director, Cardiology

## Overview

We have a broad investigator-driven research program with a dominant focus on health service research and evaluation, including chest pain assessment, heart failure disease management, alternative models of cardiac rehabilitation, cardiac genetics, cardiac obstetrics, multimodality imaging and heart failure prevention.

Much of our research has grown from the efforts of clinicians to improve models of care with interdisciplinary collaboration within RBWH and with other centres nationally and internationally.

The research led by Dr William Parsonage (Department of Cardiology) and Dr Louise Cullen (Department of Emergency Medicine) has led to international collaborations and is informing the evaluation of chest pain across Queensland and in other jurisdictions.

Dr Parsonage has developed a unique cardiac obstetric clinic in collaboration with obstetric physicians (Internal Medicine Services and Department of Obstetric Medicine) and other clinicians. Dr Parsonage has been invited to join the steering committee on the European Cardiac Obstetric Registry (part of the EURObservational Research program) as the only Australian representative.

We have developed a cardiac genetic clinic as a collaboration between Genetic Health Queensland and Cardiology. Dr John Atherton (Department of Cardiology) and Associate Professor Julie McGaughan (Genetic Health Queensland) are on the Australian National Genetic Heart Disease Registry.

We have recently focussed on heart failure prevention. This includes investigating the role of training echocardiography-naïve nursing staff to assess LV function. This could allow a paradigm shift of echocardiography to affordable population screening and disease monitoring. We are collaborating with a UQ-based group of researchers (led by Dr Chamindie Punyadeera) to investigate the role of salivary biomarkers in heart failure and cardiovascular disease detection.

Additional research interests includes a dedicated electrophysiology animal laboratory, hypertrophic cardiomyopathy genotype-phenotype correlation and Fabry disease.

The department has a strong clinical trials research program and has been the lead national and global recruiting site for a number of multicentre trials. Areas of interest include acute coronary syndromes, heart failure, pacing and atrial fibrillation.

## Research staff

Name	Qualifications	Position	Interests/specialties
Assoc. Prof. John Atherton	MBBS, PhD, FRACP, FCSANZ	Director, Cardiology	heart failure, cardiac genetics, cardiac rehabilitation, economics
Dr Anthony Camuglia	MBBS	Cardiology Registrar	
Dr Loretta Carr	MBBS	Cardiology Registrar	
Dr Karin Chia	MBBS, FRACP	Staff Cardiologist and Electrophysiologist	electrophysiology
Dr Julie Ch'ng	MBBS, FRACP	Staff Cardiologist	echocardiography
Dr Stuart Cox		Cardiology Registrar	
Dr David Cross	MBBS, FRACP, FCSANZ	Visiting Senior Cardiologist	clinical trials, acute coronary syndromes
Dr Arun Dahiya	MBBS, FRACP	Staff Cardiologist	multimodality imaging including echocardiography, cardiac CT and cardiac MRI
Dr Mark Dooris	MBBS (Hons 2), FRACP, GradDipSci (Mathematics), FCSANZ	Staff Interventional Cardiologist; Director, Cardiac Catheterisation Laboratory	interventional cardiology, clinical audit, mathematics
Gae Goodman	BN	Clinical Trials Coordinator	clinical trials
Dr Christopher Hammett	BHB, MBChB, MD, FRACP, FCSANZ	Staff Interventional Cardiologist	interventional cardiology, clinical trials, acute coronary syndromes
Dr Samuel Hillier	MBBS, MPhil	Cardiology Registrar	
Linda Hindom	BN	Clinical Trials Coordinator	clinical trials
Dr Cleonie Jayasuriya	MBBS, FRACP	Staff Cardiologist	echocardiography

## Research staff

Name	Qualifications	Position	Interests/specialties
Dr Arvin Lamanna	MBBS	Cardiology Registrar	
Lydia Lilwall	BN	Clinical Trials Coordinator	clinical trials
Ada Lo	GradDipAppSci, Masters	Senior Echocardiographer	echocardiography, cardiomyopathies, novel echocardiographic imaging techniques
Dr Louise McCormack	MBBS	Cardiology Registrar	
Dr Paul Martin	MBBCh, MRCPI, FRACP, PhD, FCSANZ	Staff Cardiologist and Electrophysiologist	electrophysiology, atrial fibrillation
Leeanne Palethorpe	BN	Clinical Trials Coordinator	clinical trials
Dr William Parsonage	BMedSci (Hons), MBBS, DM, MRCP (UK), FRACP	Staff Cardiologist	echocardiography, cardiac obstetrics, chest pain assessment, Fabry disease
Dr Rohan Poulter	MBBS, FRACP	Interventional Cardiology Fellow	cardiac CT
Dr Sandy Prasad	MBBS, FRACP	Staff Cardiologist	echocardiography
Prof. Adam Scott	BSc, PhD	Director, Cardiac Sciences	exercise physiology, heart failure, Fabry disease
Dr Rajesh Shetty	MBBS, MD (Internal Medicine), DM (Cardiology), FRACP	Staff Interventional Cardiologist	interventional cardiology, pulmonary hypertension
Dr Peter Stewart	MBBS, FRACP	Staff Interventional Cardiologist	interventional cardiology
Dr Roger Wilkinson	MBBS, FRACP, FCSANZ	Visiting Cardiologist	
Dr John Younger	MBBCh, MRCP, FRACP	Staff Cardiologist	multimodality imaging including echocardiography, cardiac CT and cardiac MRI

## Supervised post-graduate students

Name	Current studies	Research topic
Guppy-Coles, K.	BAppSci (Hons)	The performance and reliability of using non-specialised nursing staff to quantify a left ventricular ejection fraction via 3D echocardiography
Poulter, R.	MPhil	Evaluating the diagnostic performance of dual energy cardiac computed tomography
Lo, A.	PhD	Identification of new echocardiographic parameters in distinguishing between familial cardiomyopathy genotypic positive patients with and without phenotypic expression
Dahiya, A.	MPhil	Assessment and improvement of multi-reader concordance and accuracy in diagnoses based on multiple parameters
Noonan, K.	MAppSci	Do anti-inflammatory agents promote linear ablation lesion discontinuities? An electrophysiological examination
Suna, J.	Masters of Research	The effect of exercise on sleep quality in heart failure patients
Leung, B.	MBBS (Hons)	Are burn survivors at increased risk of cardiovascular disease?

## Awards and achievements

Award	Event	Name
Nursing Young Investigator Award	European Society of Cardiology Heart Failure Congress, Belgrade, Serbia	Suna, J.

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Mudge, A., Denaro, C., Scott, A., Javorsky, G., Atherton, J., Scuffham, P., Marwick, T., O'Rourke, P.	A supervised exercise programme following hospitalisation for heart failure: Does it add to disease management?	NHMRC No. 498403	\$698,950	2008-2012
Hickey, A., Javorsky G., Atherton, J., Denaro, C., Ingram, J., Capreuter, J., Munns, A., Klingberg, R., Matthews, P., Farlow, A., Driver, A.	Enhancing medication titration in patients with heart failure	Connecting Healthcare in Communities (CHIC) Primary Healthcare Partnerships Council	\$313,700	2009-2012
Brown A., Greenslade, J., O'Rourke, P., Chu, K., Hou, X., Parsonage, W., Graves, N., Than, M., Tate J.	A clinical decision tool for rapid assessment of cardiac chest pain	Queensland Emergency Medicine Research Foundation	\$581,223	2011-2013
Brown, A., Greenslade, J., O'Rourke, P., Chu, K., Hou, X., Parsonage, W., Graves, N., Than, M., Tate J.	Validation of novel high sensitivity troponin assay in cohort of 1,000 patients presenting with chest pain	Roche Diagnostics	\$29,407 (plus costs of biochemical assays)	2011-2012
Atherton, J., Williamson, D.	Statewide cardiac genetic project	Statewide Cardiac Clinical Network	\$65,000	2012
Atherton, J., Trueman, H.,	Statewide cardiac genetic, family-linked, data management system	Statewide Cardiac Clinical Network Cardiac Information Solution Program	\$42,800	2012
Atherton J., Trueman, H.	Statewide cardiac genetic project	Statewide Cardiac Clinical Network	\$65,000	2012-2013

## Publications

Arumugam D, Atherton JJ, Martin PT. A lethal injection? *Lancet*. 2012;379:492.

Atherton JJ. Chronic heart failure: We are fighting the battle, but are we winning the war? *Scientifica*. 2012 (accepted 31/10/12) (commissioned spotlight article).

Atherton JJ. Stage B Heart Failure: Rationale for screening. *Heart Failure Clin*. 2012;8(2):273-83.

Atherton JJ, Hayward CS, Wan Ahmad WA, Kwok B, Jorge J, Hernandez AF, Liang L, Kociol RD, Krum H, ADHERE International-Asia Pacific Scientific Advisory Committee. Patients characteristics from a regional multi-center database of acute decompensated heart failure in Asia Pacific (ADHERE International- Asia Pacific). *J Card Fail*. 2012;18:82-8.

Atherton JJ, Hickey A, Suna J. Striving to achieve best practice in heart failure disease management. *BMJ Qual Saf*. 2012;21:263.

Cullen L, Parsonage WA, Greenslade J, Lamanna A, Hammett CJ, Than M, Ungerer JP, Chu K, O'Kane S, Brown AF. Comparison of early biomarker strategies with the Heart Foundation of Australia/Cardiac Society of Australia and New Zealand guidelines for risk stratification of emergency department patients with chest pain. *Emerg Med Australas*. 2012;24:595-603.

Foo JYY, Wan Y, Kostner K, Arivalagan A, Atherton J, Cooper-White J, Dimeski G, Punyadeera C. NT-ProBNP levels in saliva and its clinical relevance to heart failure. *PLoS ONE* 7(10):e48452. doi:10.1371/journal.pone.0048452 (accepted 25/9/12).

Greenslade JH, Cullen L, Parsonage W, Reid CM, Body R, Richards M, Hawkins T, Lim SH, Than M. Examining the signs and symptoms experienced by individuals with suspected acute coronary syndrome in the Asia-Pacific region: a prospective observational study. *Ann Emerg Med*. 2012;60:777-785.

Greenwood JP, Maredia N, Younger JF, Brown JM, Nixon J, Everett CC, Bijsterveld P, Ridgway JP, Radjenovic A, Dickinson CJ, Ball SG, Plein S. Cardiovascular magnetic resonance and single-photon emission computed tomography for diagnosis of coronary heart disease (CE-MARC): a prospective trial. *Lancet*. 2012 Feb 4;379:453-60.

Hawkes AL, Patrao TA, Atherton J, Ware RS, Taylor CB, O'Neil A, Foreman R, Oldenburg B. Effect of a telephone-delivered coronary heart disease secondary prevention program (ProActive Heart) on quality of life and health behaviors: Primary outcomes of a randomised controlled trial. *Int J Behav Med*. 2012 Jul 18 [Epub ahead of print].

Hunter J, Prasad S, Atherton JJ. Diagnosing diastolic heart failure. *Cardiology Today*. 2012;2(1):1-5 (cover feature for March 2012 issue).

Ingles J, Yeates L, O'Brien L, McGaughran J, Atherton J, Semsarian C. Genetic testing for inherited heart diseases: longitudinal impact on health-related quality of life. *Genet Med* 2012 May 3. doi: 10.1038/gim.2012.47. [Epub ahead of print].

## Publications

- Ingles J, McGaughan J, Scuffham PA, Atherton J, Semsarian C. A cost-effectiveness analysis of genetic testing in the evaluation of families with hypertrophic cardiomyopathy. *Heart*. 2012;98:625-30.
- Lim SL, Atherton JJ, Lam CSP. Heart failure with preserved ejection fraction: Current perspectives. *Asean Heart Journal*. 2012.
- Lo A, Foder K, Martin P, Younger JF. Response to steroid therapy in cardiac sarcoidosis: insights from myocardial strain. *Eur Heart J Cardiovasc Imaging*. 2012 Feb;13(2): E3. doi: 10.1093/ejehocard/jer184.
- Mega JL, Braunwald E, Wiviott SD, Bassand JP, Bhatt DL, Bode C, Burton P, Cohen M, Cook-Brunns N, Fox KA, Goto S, Murphy SA, Plotnikov AN, Schneider D, Sun X, Verheugt FW, Gibson CM; ATLAS ACS 2-TIMI 51 Investigators. Rivaroxaban in patients with a recent acute coronary syndrome. *N Engl J Med* 2012;366:9-19 (highest recruiting site in the world with 176 patients randomised from RBWH).
- O'Neil A, Hawkes AL, Atherton JJ, Patrao TA, Sanderson K, Wolfe R, Taylor CB, Oldenburg B. Telephone-delivered, health coaching improves anxiety outcomes after myocardial infarction: The 'ProActive Heart' trial. *Eur J Prev Cardiol*. 2012 Sep 6 [Epub ahead of print].
- Parsonage WA, Cullen L, Younger JF, Than M. The role of cardiac computed tomography in assessment of acute chest pain. *Heart Lung Circ*. 2012 Nov;21(11):763; Epub 2012 May 18.
- Roe MT, Armstrong PW, Fox KA, White HD, Prabhakaran D, Goodman SG, Cornel JH, Bhatt DL, Clemmensen P, Martinez F, Ardissino D, Nicolau JC, Boden WE, Gurbel PA, Ruzyllo W, Dalby AJ, McGuire DK, Leiva-Pons JL, Parkhomenko A, Gottlieb S, Topacio GO, Hamm C, Pavlides G, Goudev AR, Oto A, Tseng CD, Merkely B, Gasparovic V, Corbalan R, Cinteza M, McLendon RC, Winters KJ, Brown EB, Likhnygina Y, Aylward PE, Huber K, Hochman JS, Ohman EM; TRILOGY ACS Investigators. Prasugrel versus clopidogrel for acute coronary syndromes without revascularisation. *N Engl J Med*. 2012 Oct 4;367(14):1297-309.
- Schwartz GG, Olsson AG, Abt M, Ballantyne CM, Barter PJ, Brumm J, Chaitman BR, Holme IM, Kallend D, Leiter LA, Leitersdorf E, McMurray JJ, Mundl H, Nicholls SJ, Shah PK, Tardif JC, Wright RS; dal-OUTCOMES Investigators. Effects of dalcetrapib in patients with a recent acute coronary syndrome. *N Engl J Med*. 2012;367:2089-99.
- Scott IA, Cullen L, Tate JR, Parsonage W. Highly sensitive troponin assays: A two-edged sword? *Med J Aust*. 2012;197:320-3.
- Starmer G, Younger JF, Stewart P. Multimodality imaging of isolated left ventricular apical hypoplasia. *Eur Heart J*. 2012;33(5):675.
- Suarez J, Piccini JP, Liang L, Atherton JJ, Hayward CS, Krum H, Fonarow GC, Lopes RD, Hernandez AF. International variation in use of oral anticoagulation among heart failure patients with atrial fibrillation. *Am Heart J*. 2012;163:804-11.
- Than M, Cullen L, Aldous S, Parsonage WA, Reid CM, Greenslade J, Flaws D, Hammett CJ, Beam DM, Ardagh MW, Troughton R, Brown AF, George P, Florkowski CM, Kline JA, Peacock WF, Maisel AS, Lim SH, Lamanna A, Richards AM. 2-Hour accelerated diagnostic protocol to assess patients with chest pain symptoms using contemporary troponins as the only biomarker: the ADAPT trial. *J Am Coll Cardiol*. 2012;59:2091-8.

# Department of Clinical Immunology and Allergy



**Dr Roger Prentice**  
Director, Clinical  
Immunology and Allergy

## Overview

The Department of Clinical Immunology and Allergy provides a consultative service for patients with immunological conditions and allergies.

Clinical immunology patients include those with immunodeficiencies, angioneurotic edema, connective tissue diseases such as systemic lupus erythematosus and vasculitides such as Wegener's granulomatosis. Patients with allergic conditions such as urticaria, angioedema, allergic rhinitis, asthma, eczema, stinging insect allergy and drug allergy are also treated in the area.

The day procedure unit within the department provides services including gammaglobulin infusions with hypogammaglobulinaemia, an allergy challenge capsule testing for food additive reactions, and skin testing for drugs such as anaesthetic agents.

Advanced trainee, Dr Carl Kennedy, has completed his required research project entitled 'Prevalence of *Blomia tropicalis* sensitisation in allergy and respiratory patients presenting to Royal Brisbane and Women's Hospital and success' and successfully submitted it to the RACP/RCPA.

Facilities located in the Department of Clinical Immunology and Allergy include:

- » An injection clinic for the desensitisation of patients with bee, wasp, grass, cat or house dust mite allergy
- » Patient education for house dust mite elimination
- » Patient education for self-administration of adrenaline
- » A consultative service from the RBWH Department of Nutrition and Dietetics for patients with urticaria and angioedema.

## Research staff

Name	Qualifications	Position	Interests/specialties
Dr Roger Prentice	MBBS, MSC (Med), MRCP (UK), FRACP	Director, Clinical Immunology and Allergy	house and dust mite allergy, urticaria, angioedema, connective tissue diseases
Dr Graham Solley	MBBS, FACP, FAAAAI, DABIM, DABAI FRCPA	Visiting Medical Officer	stinging insect allergy
Dr Carl Kennedy	MBBS	Advanced Trainee (Clinical Immunology and Allergy)	house/dust mite allergy

# Department of Clinical Pharmacology



**Dr Paul Kubler**  
Director, Clinical  
Pharmacology

## Overview

The primary aims of the Department of Clinical Pharmacology are to enhance medication safety within the hospital and to maximise the efficacy, safety and cost-effectiveness of drug therapy, using a consistent, systematic approach.

The department offers a range of services, including advice on therapeutic drug monitoring, consultation liaison for patients with pharmacological problems and various process issues in methods of drug prescribing and availability.

Other areas of activity include teaching of undergraduate and postgraduate medical students, pharmacists and pharmacy students, nursing staff and allied health staff, whilst undertaking ongoing clinical and basic pharmacology research.

The department is additionally enhanced by a Quality Use of Medicines (QUM) Unit in the last three years. The role of this unit is to monitor and evaluate medication use in collaboration with prescribers, pharmacists, nurses and other healthcare professionals to improve patient care through appropriate, safe and cost effective use of medicines.

Current research projects include:

- » A multi-centre prospective study investigating the effect of a Bayesian method of aminoglycoside monitoring on clinical outcomes and cost: Comparison to existing Begg nomogram
- » Indications and outcomes of off-label rituximab use at two tertiary hospitals
- » Analysis of non-formulary use of high-cost drugs at a tertiary hospital over seven-year period.

## Research staff

Name	Qualifications	Position	Interests/specialties
Dr Paul Kubler	MBBS, FRACP	Staff Specialist and Director	therapeutics, rheumatology
Dr Jennifer Martin	MBChB, MA (Oxon), FRACP, PhD	Senior Staff Specialist, Internal Medicine and Clinical Pharmacology	pharmacogenetics, quality use of medicines
Dr Peter Donovan	MBBS, FRACP	Staff Specialist	clinical pharmacology, endocrinology, general medicine
Karen Davies	BNurs, RN	Clinical Nurse Consultant, Safe Medication Practice	medication safety, quality processes and procedures, education, renal medicine
Jessica Toleman	BPharm	QUM Coordinator	quality use of medicine
Julia Holman	BPharm	QUM Pharmacist	quality use of medicine
Champika Pattullo	BPharm	QUM Pharmacist	quality use of medicine
Anne Cassimatis		Administration Officer	quality use of medicine



# Department of Endocrinology



**Assoc. Prof. Michael d'Emden**  
Director, Endocrinology

## Overview

The Department of Endocrinology is staffed by 13 medical staff, two administrative staff, four allied health staff, four research nurses, two clinical nurses, one podiatrist, one dietitian and four scientists.

Clinical services provided include inpatient consultative services at RBWH and The Prince Charles Hospital (TPCH) and specialised out-patient clinics at RBWH, TPCH and Bundaberg Hospital.

The department contributes to the Statewide Thyroid Cancer Clinic held with members of Cancer Care Services and to the Obstetric Endocrine Clinic held with staff from Women's and Newborn Services and provides outreach services to Bundaberg and telehealth services in maternity health and complex Type 2 Diabetes to hospitals in the Central zone.

Clinical research projects include an active clinical trials unit. Chronic disease funding is underwriting projects in management of Diabetes in Pregnancy and Type 2 Diabetes. The Conjoint Endocrine Laboratories, a joint venture of Internal Medicine Services and Pathology Queensland undertakes studies at a basic science level of placental iodide and thyroid hormone handling.

Associate Professor Emma Duncan coordinates research activity within the department. There are now three doctoral students. The department has developed strong links with several research departments and has started major clinical studies in several areas including:

- » HIV disease and bone
- » Pheochromocytoma and bone disease
- » Genetics of pheochromocytoma
- » Genetics of thyroid cancer
- » Genetics of skeletal dysplasia
- » Genetics of osteogenesis imperfecta
- » Genome-wide association studies of osteoporosis.

The department has developed the first gestational diabetes decision support tool for the management of diabetes. Data on all patients managed in the department is now captured at every clinic visit. This has led to the potential to do clinical trials and outcome audit of all patients with diabetes in pregnancy.

The department collaborates closely with the Departments of Obstetric Medicine and Neonatology with two of our doctoral students undertaking their studies in Obstetric Medicine.

On-going Research projects:

- » Basic Science
  - i) Placental handling of thyroid hormone and iodine.
- » Clinical trials
  - ii) 12 Studies: four completed and eight on-going.
- » Chronic funding
  - iii) Improving outcomes of patients with Type 2 Diabetes.

## Research staff

Name	Qualifications	Position	Interests/specialties
Assoc. Prof. Michael d'Emden	PhD, FRACP	Director, Endocrinology	clinical trials, chronic disease
Assoc. Prof. Emma Duncan	PhD, FRACP	Senior Staff Specialist	genetics of endocrinology, clinical bone disease
Dr Robin Mortimer	FRACP	Senior Director, Office of Health and Medical Research	thyroid hormone, iodine and placenta innovation projects
Dr Maree Mungomery	FRACP	Visiting Medical Officer	chronic disease, diabetes telehealth project
Dr Kerry Richard	PhD	Senior Scientist	thyroid hormone, iodine and placenta
Dr Huika Li	MB	Scientist	thyroid hormone, iodine and placenta
Dr Kelly Landers	PhD	Research Assistant	thyroid hormone, iodine and placenta
Erika Tapp	BHlthSc	Research Assistant	clinical trials
Helen Legg	BNurs	Research Assistant	clinical trials
Liz Lahz	BNurs	Research Assistant	clinical trials
Janelle McFarlane		Trials Coordinator	bone metabolism studies



## Research staff

Name	Qualifications	Position	Interests/specialties
Alison Barry	BA, BNurs, RM, MPH, CDE	Project Officer	chronic disease projects
Sharon Chambers	RN	Project Officer	chronic disease projects

## Awards and achievements

Award	Event	Name
Smart State Grant for 'Regulation of transplacental transfer of thyroid hormones and iodide'		Richard, K., Li, H., Mortimer, H.
2012 Australian and New Zealand Bone and Mineral Society Kaye Ibbertson Award		Duncan, E.
2012 Endocrine Society of Australia Mid-career Award		Duncan, E.
2012 Clinician Researcher of the Year, Australian Society for Medical Research Queensland		Duncan, E.
2012 Best Basic Science Free Paper, Australian Rheumatology Association		Duncan, E.
2012 Paper of the Year Runner-up Award – The University of Queensland Diamantina Institute		Duncan, E.

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Duncan, E.	Determining the causes of congenital vertebral defects	NHMRC Project Grant 1044543	\$926, 275.74	3 years
Duncan, E.	Marfan syndrome: Using next-generation sequencing to identify mendelian mutations and modifying genes	The Prince Charles Hospital Foundation Project Grant	\$91,000	2012

## Publications

Achong N, d'Emden M, Fagermo N, Mortimer R. Pregnancy-induced Cushing's syndrome in recurrent pregnancies: Case report and literature review. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2012;52(1):96–100.

Bradbury LA, Barlow S, Geoghenan F, Hannon RA, Stuckey SL, Wass JAH, Russell RGG, Brown MAA, Duncan EL. Risedronate in Adults with Osteogenesis Imperfecta Type 1: Increased bone mineral density and decreased bone turnover, but high fracture rate persists. *Ost Int*. 2012;23(1):285-94.

Bullock M, Duncan E, O'Neill C, Tacon L, Sywak M, Sidhu S, Delbridge L, Learoyd D, Robinson B, Ludgate M, Clifton-Bligh R. Association of FOXE1 polyalanine tract variant with papillary thyroid cancer. *J Clin Endo Metab*. 2012;97(9):E1814-9 [Epub 26 June 2012].

d'Emden M, Shaw M, Colman J, Colagiuri P, Twigg S, Goodall G, Schneider I, Cheung H, Wah N. Australian Diabetes Society. Royal College of Pathologists of Australasia. Australasian Association of Clinical Biochemists. The role of HbA1c in the diagnosis of diabetes mellitus in Australia. *Medical Journal of Australia*. 2012;197(4):220-1.

Estrada K, Stykarsdottir U, Evangelou E, Hsu YH, Duncan EL, Ntzani EE, Oei L (all equal first authors) and 174 others. New genomic loci for bone mineral density, osteoporosis and risk of fracture. *Nat Genet*. 2012;44(5):491-501.

Gregson C, Steel SA, O'Rourke KP, Allan K, Ayuk J, Bhalla A, Clunie G, Crabtree N, Fogelman I, Goodby A, Langman CM, Linton S, Marriott E, McCloskey E, Moss KE, Palferman T, Panthakalam S, Poole KES, Stone MD, Turton J, Wallis D, Warburton S, Wass JAH, Duncan EL, Brown MA, Davey-Smith G, Tobias JH. Sink or swim: An evaluation of the clinical characteristics of individuals with high bone mass. *Ost Int*. 2012; 23(2):643-54.

Hou-Feng Zheng, Tobias JH, Duncan E (equal first authors) et al. and 53 others. NT16 influences bone mineral density, cortical bone thickness, bone strength, and osteoporotic fracture risk. *PLoS Genetics*. 2012;8(7):e1002745 [Epub 5 Jul 2012].

Li H, Patl J, Mortimer RH, Richard K. Ontogenic changes in human placental sodium iodide symporter expression. *Placenta*. 2012;33(11): 946-948.

Mortimer RH, Landers KA, Balakrishnan B, Li H, Mitchell M, Patel J and Richard K. Secretion and transfer of the thyroid hormone binding protein transthyretin by human placenta. *Placenta*. 2012;33:252-256.

Patel J, Mortimer RH and Richard K. Oxygen concentration regulates expression and uptake of transthyretin, a thyroxine binding protein, in human primary trophoblast cells. *Journal of Endocrinology*. 2012;212:159-167.

Richard K, Li H, Landers KA, Patel J, Mortimer RH. Placental Transport of Thyroid Hormone and Iodide. In: Zheng J *The Human Placenta* pp309-334. Croatia: InTech Publishers.

Zankl A, Duncan E (equal first authors), Leo P, Clark G, Glazov E, Addor MC, Herlin T, Ae Kim C, Leheup B, McGill J, McTaggart S, Mittas S, Mitchell A, Mortier G, Robertson S, Schroeder M, Terhal P, Brown M (Mutations in MAFB cause multicentric carpotarsal osteolysis). *Am J Hum Gen*. 2012;90(3):494-501.

# Department of Gastroenterology and Hepatology



**Dr Mark Appleyard**  
Director, Gastroenterology  
and Hepatology

## Overview

Research in the Conjoint Gastroenterology Laboratory is focussed on understanding the molecular events underlying the development of bowel polyps and cancers. We aim to identify genetic changes associated with advanced bowel polyps and therefore those at highest risk of progressing to cancer.

We are also studying subgroups of bowel cancer with the aim of identifying gene changes associated with different outcomes and responses to therapy. We are using state of the art technologies to study these molecular changes, including genome wide array analysis to examine DNA methylation signatures, expression profiles and copy number variations. Work from this laboratory has directly impacted surveillance strategies for early detection of bowel polyps and choice of therapy for patients with advanced bowel cancer.

Research in the Inflammatory Bowel Disease Laboratory headed by Dr Graham Radford-Smith links clinical outcomes to disease biology in both Crohn's disease and ulcerative colitis. We use our extensive bio-repository to determine whether disease natural history, including both disease- and treatment-related adverse events can be influenced and hence predicted by genotype, gene expression, and epigenetic events. Our clinical and scientific programmes have been used as a springboard in the development of the ANZ IBD Consortium, now made up of 16 centres, and recently attracting a major project grant from NHMRC. This consortium has a strong link with the International IBD Genetics Consortium, making a significant contribution to recent publications that have redefined the genetic architecture of IBD.

Dr Mark Appleyard conducts research into diseases of the small bowel and how these may be diagnosed and treated by advanced endoscopy techniques such as capsule endoscopy. He also has an interest in colonoscopy and in endoscopy outcomes research, and is Co-PI on the 'Optimisation of colonoscopy' project, centred at the RBWH and QIMR.

Dr Richard Skoien joined the full time staff in 2012 as a consultant hepatologist. He has commenced several projects in collaboration with the liver fibrosis group in the QIMR (Professor Grant Ramm), including studies on new non-invasive methods of detecting progression of liver diseases and HCC surveillance.

Professor Lawrie Powell continues his research into haemochromatosis.

## Research staff

Name	Qualifications	Position	Interests/specialties
Dr Mark Appleyard	MD, FRACP	Director, Gastroenterology and Hepatology	small bowel endoscopy
Assoc. Prof. Graham Radford-Smith	DPhil, FRACP, FRCP	Senior Staff Specialist, Head of the IBD and TPN Programmes, Group Leader, QIMR	inflammatory bowel diseases, health services research, TPN
Prof. Barbara Leggett	MD, FRACP	Senior Staff Specialist; Head, Conjoint Gastroenterology Laboratory	colorectal cancer, clinical hepatology
Prof. Lawrie Powell	AC, MD, PhD, DUniv, FRACP, FRCP, FRCPT	Director, Research; Senior Staff Specialist	haemochromatosis
Dr Richard Skoien	BA, LLB, BSc, MBBS, FRACP	Staff Specialist	viral hepatitis, non-alcoholic fatty liver disease, non-invasive assessment of liver disease, liver cancer
Assoc. Prof. David Hewett	MBBS, MSc, PhD, FRACP	Staff Specialist; Head of Phase 2, UQ Medical School	colorectal cancer, clinical endoscopy research, health services improvement
Assoc. Prof. Vicki Whitehall	PhD	Senior Scientist	colorectal cancer
Ron Buttenshaw	CertChem	Senior Technician	colorectal cancer
Troy Dumenil	MAppSci	Research Assistant	colorectal cancer
Diane McKeone	Diploma Laboratory Techniques	Research Assistant	colorectal cancer
Winnie Fernando	MSc	PhD student	colorectal cancer
Catherine Bond	MSc	PhD student	colorectal cancer
Dr Mark Bettington	BSc, MBBS, FRCPA	PhD student	colorectal cancer
Jo Minna	BNurs	Clinical Nurse	liver clinical trials

## Research staff

Name	Qualifications	Position	Interests/specialties
Deborah D'Arcy	BNurs	Clinical Nurse Consultant	liver clinical trials
Rita Marangone	BNurs	Clinical Nurse	liver clinical trials
Dr Mariko Howlett	MBBS, FRACP	Staff Specialist	inflammatory bowel diseases, clinical research
Lisa Simms	BSc (Hons)	Senior Scientist	inflammatory bowel diseases - QIMR
Dr Georgia Hume	MBBS (Hons), FRACP	Staff Specialist, PhD student	inflammatory bowel diseases – clinical, QIMR
Dr Nicole Walker	MBBS, FRACP	IBD Fellow; MPhil student	inflammatory bowel diseases – clinical, QIMR
Dr Bodo Speckman	PhD	Post-doctoral Research Fellow	inflammatory bowel diseases – QIMR
Dr Anthony Croft	BSc (Hons), MBBS	Medical Registrar; Honorary Research Fellow	inflammatory bowel diseases - clinical
Katherine Hanigan	BSc (Public Health)	Senior Research Assistant	inflammatory bowel diseases – QIMR
Kylie Mesquita	BSc (Hons)	Research Assistant	Inflammatory Bowel Diseases – QIMR/RBWH
Ning Huang	MAppSci	Research Assistant	inflammatory bowel diseases – QIMR
Dr Angela Lin	BMedSci, MBBS	Research Assistant	inflammatory bowel diseases - clinical
Dr Phoebe Thwaites	MBBS	Medical Registrar; Honorary Research Fellow	inflammatory bowel diseases – clinical
Natalie Gerns	BNurs	Clinical Nurse	inflammatory bowel diseases – clinical
Madonna McIntyre	BNurs	Clinical Nurse	inflammatory bowel diseases – clinical trials
Anna Zournazi	BSc, MSc, CN, BNurs	Research Coordinator	inflammatory bowel diseases – RBWH
Yoon An	MBBS	Medical Intern	clinical endoscopy research
Dr Florian Grimpen	MBBS FRACP	Staff Specialist	clinical endoscopy research

## Supervised post-graduate students

Name	Current studies	Research topic
Bond, C.	PhD	Molecular features distinguishing microsatellite stable versus microsatellite instability high serrated pathway tumours
Bettington, M.	PhD	Identification of molecular features of high-risk colorectal polyps
Fernando, W.	PhD	Molecular pathogenesis of serrated carcinoma of the colon
Tutticci, N.	MPhil	The prevalence and predictors of sessile serrated adenomas at colonoscopy
Chapman-Kiddell, C.	MPhil	The role of diet in IBD
Walker, N.	MPhil	Acute severe ulcerative colitis: Long-term outcomes
Hume, G.	PhD	The intestinal mucosal immune response and genetic susceptibility to inflammatory bowel disease
Skoien, R.	PhD (Hepatology research)	The pathogenesis of non-alcoholic fatty liver disease: From parenchymal injury to portal fibrosis
Wood, M.	PhD (Hepatology research)	

## Awards and achievements

Award	Event	Name
Best Overall Research	2012 RBWH Healthcare Symposium	Bond, C.
Best Basic Science Oral	2012 RBWH Healthcare Symposium	Bond, C.

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Whitehallm, V., Leggett, B.	Tubulovillous adenomas in colorectal tumorigenesis	NHMRC	\$284,250	2009-2012
Radford-Smith, G., Montgomery, Lawrence	Genomic medicine: Predictors of refractory ulcerative colitis and response to treatment	NHMRC	\$849,261	2012-2014
Leggett, B., Whitehall, V.	Molecular and clinical features of serrated adenomas	Cancer Council Queensland	\$197,450	2012-2013
McLaren, C. et al (six centres, including QIMR)	Genetic modifiers of iron status in haemochromatosis HFE C282Y homozygotes	National Institutes of Health	\$US 265,190	2011-2012
Anderson, G.J., Walter, P., Powell, L.W., Ramm, G.A., Subramaniam V.N.	Assessment of oxidant stress and mitochondrial dysfunction in young adults with iron loading diseases	NHMRC Project Grant 613689	\$591,525	2010-2012
Delatycki, M. et al (three centres)	Venesection or expectant management for moderate iron overload in HFE related hereditary haemochromatosis	NHMRC	\$820,000	2012-2014
Radford-Smith, G.	Identification of causal variants associated with colorectal cancer complicating colonic inflammatory bowel disease using exome sequencing technology and extreme phenotype study design	RTRCC-QIMR	\$43,500	2012
Radford-Smith, G.	Identification of tissue gene signatures that predict treatment response in ulcerative colitis	RBWH	\$24,000	2012
Skoien, R., Ramm, G., Powell, L., Burgess A.	New non-invasive methods to detect progression of liver disease and identify patients at highest risk of cirrhosis-related mortality	RBWH Foundation; QIMR	\$70,000	2012-2013
Skoien, R., Fenech M., Beckman, K., Thwaites, P.	Streamlining hepatocellular carcinoma surveillance at RBWH using nurse-led clinics	Bayer Australia Ltd	\$26,000	2012-2013
Skoien, R., Leggett, B., Fenech, M., Beckman, K.	Establishment of a clinical and scientific hepatology research programme and database at RBWH	RBWH Research Advisory Committee	\$50,000	2012-2013
Skoien, R., Ramm, G., Gonsalkorala, E., Burgess, A.	Serum markers in atypical liver lesions (SMALL) study	RBWH Foundation	\$40,000	2012-2013

## Publications

Bond C, Umapathy A, Buttenshaw R, Wockner L, Leggett B, Whitehall V. Chromosomal instability in BRAF mutant, microsatellite stable colorectal cancers. *PLoS One*. 2012;7:10 e47483.

Bond CE, Umapathy A, Ramsnes I, Greco SA, Zhen Zhao Z, Mallitt KA, Buttenshaw RL, Montgomery GW, Leggett BA, Whitehall VL. Mutation is common in microsatellite stable. BRAF mutant colorectal cancers. 2012;130:1567-1576.

Dowty J, Win A, Buchanan D, Lindor N, Macrae F, Clendenning M, Antill Y, Thibodeau S, Casey G, Gallinger S, Le Marchand L, Newcomb P, Haile R, Young G, James P, Giles G, Gunawardena S, Leggett B, Gattas M, Boussioutas A, Ahnen D, Baron J, Parry S, Goldblatt J, Young J, Hopper J, Jenkins M. Cancer risks for MLH1 and MSH2 mutation carriers. *Human Mutation*. 2012;34:490-497.

Gaze S, McSorley HJ, Daveson J, Jones D, Bethony JM, Oliveria LM, Speare R, McCarthy JS, Engwerda CR, Croese J, Loukas A. Characterising the mucosal and systemic immune response to experimental human hookworm infection. *Plos Pathog*. 2012;8:e1002520.

Horsfall L, Skoien R, Moss C, Scott I, Macdonald GA, Powell EE. Triage of referrals to outpatient hepatology services: An ineffective tool to prioritise patients? *Aust Health Rev*. 2012 Nov;36(4):443-7.

Hume GE, Fowler EV, Griffiths LR, Doecke JD, Radford-Smith GL. Common PPAR $\gamma$  variants C161T and Pro12Ala are not associated with inflammatory bowel disease in an Australian cohort. *J Gastrointest Liver Dis*. 2012 Dec;21(4):349-55.

Jostins L, Ripke S, Weersma RK – 92 authors – Radford-Smith G, Mathew CG, Rioux JD, Schadt E, Daly MJ, Franke A, Parkes M, Vermeire S, Barrett JC, Cho JH. Host-microbe interactions have shaped the genetic architecture of inflammatory bowel disease. *Nature*. 2012 Nov 1;491(7422):119-24.

Krishnaprasad K, Andrews JM, Lawrence IC, Florin T, Geary RB, Leong RW, Mahy G, Bampton P, Prosser R, Leach P, Chitti L, Cock C, Grafton R, Croft AR, Cooke S, Doecke JD, Radford-Smith GL. Inter-observer agreement for Crohn's disease sub-phenotypes using the Montreal classification: How good are we? A multi-centre Australasian study. *J Crohns Colitis*. 2012 Apr;6(3):287-93.

## Publications

Melino M, Gadd VL, Walker GV, Skoien R, Barrie HD, Jothimani D, Horsfall L, Jones A, Sweet MJ, Thomas GP, Clouston AD, Jonsson JR, Powell EE. Macrophage secretory products induce an inflammatory phenotype in hepatocytes. *World J Gastroenterol*. 2012 Apr 21;18(15):1732-44.

O'Brien J, Powell LW. Non-alcoholic fatty liver disease: Is iron relevant? *Hepatology International*. 2012;6:332-341.

Powar MP, Martin P, Croft AR, Walsh A, Stevenson ARL, Lumley JW, Stitz RW, Radford-Smith GL, Clark DA. Surgical outcomes in steroid refractory acute severe ulcerative colitis: The impact of rescue therapy. *Colorectal Disease*. 2012.

Sandborn WJ, Gasink C, Gao LL, Blank MA, Johans J, Guzzo C, Sands BE, Hanauer SB, Targan S, Rutgeerts P, Ghosh S, de Villiers WJ, Panaccione R, Greenberg G, Schreiber S, Lichtiger S, Feagan BG; CERTIFI Study Group (Radford-Smith). Ustekinumab induction and maintenance therapy in refractory Crohn's disease. *N Engl J Med*. 2012 Oct 18;367(16):1519-28.

Sorrentino D, Radford-Smith G. Clinical remission after stopping infliximab in Crohn's disease: Is all that glitters true gold? *Gastroenterology*. 2012;142(5):e17.

Whitehall VL, Rickman C, Bond CE, Ramsnes I, Greco SA, Umapathy A, McKeone D, Faleiro RJ, Buttenshaw RL, Worthley DL, Nayler S, Zhao ZZ, Montgomery G, Mallitt K, Jass J, Matsubara N, Notohara K, Ishii T, Leggett BA. Oncogenic PIK3CA mutations in colorectal cancers and polyps. *Int J Cancer*. 2012;131:813-820.

Win A, Lindor N, Young J, Macrae F, Young G, Williamson E, Parry S, Goldblatt J, Lipton L, Winship I, Leggett B, Tucker K, Giles G, Buchanan D, Clendenning M, Rosty C, Arnold J, Levine A, Haile R, Gallinger S, Le Marchand L, Newcomb P, Hopper J and Jenkins M. Risks of primary extracolonic cancers following colorectal cancer in lynch syndrome. *Journal of the National Cancer Institute*. 2012;104:1363-72.

Wood MJ, Powell LW, Dixon JL, Ramm GA. Clinical cofactors and hepatic fibrosis in hereditary hemochromatosis: The role of diabetes mellitus. *Hepatology*. 2012;56(3):904-911.

Wylie N, Adib R, Barbour AP, Fawcett J, Hill A, Lynch S, Martin I, O'Rourke TR, Puhalla H, Rutherford L, Slater K, Whiteman DC, Neale RE, Queensland Pancreatic Cancer Study Group. Surgical management in patients with pancreatic cancer: A Queensland perspective. *ANZ J Surg*. 2012 Oct 24:1445-2197.

# Genetic Health Queensland



**Assoc. Prof. Julie McGaughran**  
Director, Genetic Health Queensland

## Overview

Genetic Health Queensland (GHQ) is the statewide specialty service which provides clinical genetics services for Queensland. The service is based at the Royal Brisbane and Women's Hospital and undertakes clinics at many locations throughout the state, including Cairns, Townsville, Mackay, Bundaberg, Toowoomba, Nambour and the Gold Coast.

There are six consultant staff, two advanced trainees and an intern on elective placement. As a statewide service, GHQ contributes to education and grand rounds both at RBWH and the Royal Children's Hospital (RCH) as well as across the state.

All clinical staff undertake a number of presentations locally to other health professional groups and to non-government organisations. Genetic counsellors work with the medical staff both at RBWH and at sites throughout Queensland. MSc students in genetic counselling undertake their practical training in the department.

The Queensland Familial Bowel Cancer registry is also part of the department. There are two research nurses who are part of the kConFab cancer research group. There is a weekly in-service, journal club and clinical review meeting. Research interests include dysmorphology, bone dysplasias, neurogenetics, prenatal genetics, cardiac genetics and cancer genetics.

Given the rarity of many genetic conditions and the availability of some genetic testing only out of state or in a research setting, there is considerable collaboration between staff of the department and national and international colleagues.

## Research staff

Name	Qualifications	Position	Interests/specialties
Assoc. Prof. Julie McGaughran	BSc (Hons), MB ChB (Hons), MD, FRCP, FRACP, AFRACMA	Director, Genetic Health Queensland	dysmorphology, cardiac genetics
Assoc. Prof. Michael Gabbett	MBBS, MMedSc, FRACP, AFRACMA	Staff Specialist	prenatal genetics, paediatric genetics
Dr Michael Gattas	MB BS, FRACP	Senior Staff Specialist	
Assoc. Prof. John MacMillan	MD FRCP, FRACP	Senior Staff Specialist	neurogenetics
Dr Rachel Susman	BSc MBBS MRCP FRACP	Staff Specialist	cancer genetics
Assoc. Prof. Andreas Zankl	MD, FMH, FRACP	Staff Specialist	skeletal dysplasias
Jennifer Berkman	BSc (Hons), MSc	Senior Genetic Counsellor	cancer genetics
Lauren Hunt	BSc, MSc (Hons)	Genetic Counsellor	prenatal screening, cardiac genetics
Vicki Fennelly	RN, RM, MSc	Research Nurse	kConFab familial breast and ovarian cancer research
Allison Wicht	RN	Research Nurse	kConFab familial breast and ovarian cancer research

## Supervised post-graduate students

Name	Current studies	Research topic
Tan, Y.	PhD	eMBRACE study
Gabbett, M.	MPhil	Characterisation of the oculoauriculovertebral spectrum
Simpson, R.	Master of Science (Genetic Counselling)	Assessment of patient and relatives' understanding of 'no mutation detected' and 'unclassified variant' (UCV) BRCA1/BRCA2 gene test results and effect on health behaviours
Rixon T.	Master of Science with Honours (Genetic counselling)	Attitudes towards disclosure of clinically important research findings in familial Parkinson Disease: What are the perceived benefits and concerns?



## Awards and achievements

Award	Event	Name
Runner Up for 'Improving Access to Primary Health Care'	3rd Annual Excellence in Indigenous Health Awards	MacMillan, J. with the Machado Joseph Disease Foundation

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Berkman, J., McGaughran, J., White, J., Hyland, V., Rowell, J., Francis, G.	Indirect BRCA1/2 gene testing: Development of a protocol for testing in families without a living cancer-affected family member	RBWH Private Practice Trust Fund	\$30,000	2012-2013

## Publications

Chambers D, Clarke B, McGaughran J, Garcia C. Lung fibrosis, premature graying and macrocytosis. *American Journal Respiratory and Critical Care Medicine*. 2012;186(5):e8-9 IF 10.19.

Groza T, Hunter J, Zankl A. The Bone Dysplasia Ontology: Integrating genotype and phenotype information in the skeletal dysplasia domain. *BMC Bioinformatics*. 2012;13:50:201.

Hunt L, Peterson M, Sinnott S, Sutton B, Cincotta R, Duncombe G, Chua J and McInerney-Leo A. Uptake of invasive prenatal tests in pregnancies conceived via assisted reproductive technologies: The experience in Queensland, Australia. *Prenatal Diagnosis*. 2012;32(11):1049-1052.

Ingles J, McGaughran J, Scuffham P, Atherton J, Semsarian C. A cost-effectiveness model of genetic testing for the evaluation of families with hypertrophic cardiomyopathy. *Heart*. 2012;98(8):625-30. IF 5.39.

Ingles J, Yeates L, O'Brien L, McGaughran J, Scuffham P, Atherton J, Semsarian C. Genetic testing for inherited heart diseases: Longitudinal impact on health-related quality of life. *Genetics in Medicine*. May 3. Epub IF 3.92.

Ireland PJ, Donaghey S, McGill J, Zankl A, Ware RS, Pacey V, Ault J, Savarirayan R, Sillence D, Thompson E, Townshend S, Johnston LM. Development in children with achondroplasia: a prospective clinical cohort study. *Developmental Medicine and Child Neurology*. 2012;54(6):532-7.

Ireland PJ, Johnson S, Donaghey S, Johnston L, Ware RS, Zankl A, Pacey V, Ault J, Savarirayan R, Sillence D, Thompson E, Townshend S, McGill J. Medical management of children with achondroplasia: Evaluation of an Australasian cohort aged 0-5 years. *Journal of Paediatrics and Child Health*. 2012;48(5):443-9.

Jackson GC, Mittaz-Crettol L, Taylor JA, Mortier GR, Spranger J, Zabel B, Le Merrer M, Cormier-Daire V, Hall CM, Offiah A, Wright MJ, Savarirayan R, Nishimura G, Ramsden SC, Elles R, Bonafe L, Superti-Furga A, Unger S, Zankl A, Briggs MD. Pseudoachondroplasia and multiple epiphyseal dysplasia: A seven-year comprehensive analysis of the known disease genes identify novel and recurrent mutations and provides an accurate assessment of their relative contribution. *Human Mutation*. 2012;33(1):144-57.

Maher B, Kerr H, Cox M, MacMillan HC, Brimage JC, Esposito PJ, Gianfrancesco T, Haupt F, Nyholt LM, Lea DR, Griffiths RA. Confirmation that Xq27 and Xq28 are susceptibility loci for migraine in independent pedigrees and a case-control cohort. *Neurogenetics*. 2012;13(1):97-101.

McGaughran J, Sidhu M, Jessop M. 2012. Pleural malignancy in a 22-year-old female with a chromosome 22q13 deletion. *Am J Med Genet Part A*. 2012;158A:2362–2363. IF 2.51.

Temtamy SA, Ismail S, Aglan MS, Ashour AM, Hosny LA, El-Badry TH, Aboul-Ezz EH, Amr K, Fateen E, Maguire T, Ungerer K, Zankl A. A report of three patients with MMP2 associated hereditary osteolysis. *Genetic Counseling*. 2012;23(2):175-84.

Terhal PA, van Dommelen P, Le Merrer M, Zankl A, Simon ME, Smithson SF, Marcellis C, Kerr B, Kinning E, Mansour S, Hennekam RC, van der Hout AH, Cormier-Daire V, Lund AM, Goodwin L, Megarbane A, Lees M, Betz RC, Tobias ES, Coucke P, Mortier GR. Mutation-based growth charts for SEDC and other COL2A1 related dysplasias. *American Journal of Medical Genetics. Part C – Seminars in Medical Genetics*. 2012;160C(3):205-16.

Wall N, McGaughran J. A second case of contractures, webbed neck, micrognathia, hypoplastic nipples and unusual facial features (Dinno Syndrome). *Am J Med Genet*. 2012;158A:836-838 IF 2.51.

Zankl A, Duncan EL, Leo PJ, Clark GR, Glazov EA, Addor MC, Herlin T, Kim CA, Leheup BP, McGill J, McTaggart S, Mittas S, Mitchell AL, Mortier GR, Robertson SP, Schroeder M, Terhal P, Brown MA. Multicentric carpotarsal osteolysis is caused by mutations clustering in the amino-terminal transcriptional activation domain of MAFB. *American Journal of Human Genetics*. 2012;90(3):494-501.



# Infectious Diseases Unit



**Assoc. Prof. Tony Allworth**  
Director, Infectious Disease

## Overview

The Infectious Diseases Unit is a broad based multi-disciplinary unit providing a range of services both across the RBWH campus and beyond. It has a major role as a consultative service for the clinical management of patients with infectious diseases problems across all disciplines.

The inpatient activity of the unit is focused on care of patients with complex infectious diseases such as HIV, and other specialised infectious diseases such as malaria, melioidosis, encephalitis, and meningitis. The unit is also an isolation ward for patients colonised with multiresistant organisms, those infected with airborne pathogens such as tuberculosis, varicella, SARS and influenza, and it includes the high containment unit for the management of organisms such as those causing viral haemorrhagic fevers.

The Infectious Diseases Unit provides ongoing education for the graduate medical program with clinical attachments for medical students as well as clinical teaching for the physician trainees. The Richard Kemp Day Therapy Unit provides cost-effective care by facilitating out-patient therapy and the placement of peripherally inserted central catheters (PICCs).

The unit also is the hub for the RBWH Hospital in the Home (HITH) Program and the RBWH Antimicrobial Stewardship Program. The Infection Monitoring and Prevention Service (IMPS) provides a campus-wide, facility-specific infection control program, which aims to meet the needs of patients and staff and provides expert advice throughout the campus with regard to issues pertinent to infection control.

The IV Service provides safe and efficient intravenous access and care for inpatients throughout the hospital and the service continues to conduct a twice-yearly IV cannulation course for both Queensland Health and external clients, including graduate medical course students.

The research interests of the unit are diverse including anti-microbial therapies and resistance, epidemiology especially in the nosocomial setting, parasitology and its overlap with other disciplines including HIV medicine and immunological diseases, zoonotic infections and HIV/AIDS.

The medical staff of the unit are focussed upon the translation of basic science research into clinical application and have affiliations with the Queensland Institute of Medical Research (QIMR), The University of Queensland (UQ), particularly through the Centre for Clinical Research and the Australian Infectious Diseases Research Centre.

## Research staff

Name	Qualifications	Position	Interests/specialties
Assoc. Prof. Tony Allworth	MBBS (Hons I), FRACP, FRCPA, FACTM, MASM	Director, Infectious Diseases; Visiting Scientist, UQCCR	HIV/AIDS, antibiotic resistance, influenza, therapeutic trials
Dr Krispin Hajkowicz	MBBS, FRACP	Consultant Physician, Infectious Diseases Unit and Internal Medicine and Aged Care	Hospital in the Home, antimicrobial stewardship, viral hepatitis
Assoc. Prof. James McCarthy	MD, FRACP, DHandTM (Lon),	Consultant Physician; Visiting Scientist, QIMR,	parasitology, malaria, vaccine trials
Prof. David Paterson	PhD, MBBS, FRACP, FRCPA	Consultant Physician; Microbiologist, Pathology Queensland; Professor, Infectious Diseases, UQ; Medical Advisor, CHRISP	antimicrobial resistance, infections in ICU
Dr Andrew Redmond	MBBS, FRACP	Consultant Physician; Visiting Scientist QIMR, Infectious Diseases	
Assoc. Prof. Marion Woods	MD, MPH, FRACP, FACP, FAFPHM	Consultant Physician; Visiting Scientist, QIMR	clinical epidemiology, HIV, disease pathogenesis
Dr Alex Chaudhuri	BSc (Hons), MBBS	Registrar	
Dr Hugh Wright	BSc, BVMS, PhD, MBBS	Registrar	
Janelle Zillmann	RN	HIV Coordinator	
Geoff McQueen	BNurs	Nurse Unit Manager, Wattlebrae	
Michelle Doidge	BNurs	CNC (Infection Control)	
Michael Terry	BNurs	CNC (Infection Control)	

## Supervised post-graduate students

Name	Current studies	Research topic
Britton, S.	PhD	Malaria diagnostics
Leow, H.	PhD	Malaria diagnostics
Appleyard, B.	PhD	Malaria in pregnancy
Butterworth, A.	PhD	Drugs for Malaria Gametocytes
Kearns, T.	PhD	Community control of parasites in Indigenous communities
Wailan, A.	PhD	Genome and plasmid characteristics of NDM-1 and OXA181 producing enterobacteriaceae
Kamolvit, W.	PhD	Molecular epidemiology and Insight into genomes of two common nosocomial pathogens: Carbapenem-resistant acinetobacter baumannii and vancomycin-resistant enterococcus faecium
Zowawi, H.	PhD	Beta-lactamase producing gram-negative bacteria in the Gulf states (region-wide surveillance and innovative diagnosis)
Vaska, V.	PhD	MRSA
Rogers, B.	PhD	Risk factors for community-onset ESBL producing E. coli
Adnan, S.	PhD	Improving antimicrobial use in critically ill patients
van Hal, S.	PhD	Predictors of mortality in Staphylococcus aureus Bacteremia
Marquess, J.	PhD	An epidemiological study to investigate asymptomatic clostridium difficile colonisation in hospital patients
McCarthy, K.	PhD	Pseudomonas aeruginosa bloodstream infection
Robertus, L.	PhD	The epidemiology of tuberculosis in Queensland as it relates to strategies to prevent transmission, particularly in indigenous Australians

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
McCarthy, J.	Health Research Fellowship	Queensland	\$750,000	2011-2015
Clements, A., Andrews, R., Black, J., Traub, R., McCarthy, J.	A cluster RCT of the impact of a community-based hygiene and sanitation programme on infection with intestinal parasites following mass albendazole chemotherapy in Timor-Leste	NHMRC Partnership (Project 1013713)	\$987,270	2011-2013
Andrews, R., Speare, R., Carapetis, J., McCarthy, J., Cheng, A., Kearns, T., Mulholland, E., Holt, D., Markey, P.	Impact of an ivermectin mass drug administration program against endemic scabies and strongyloidiasis	NHMRC (Project 605804)	\$ 1,257,125	2011-2014
Gardiner, D., Trenholme, K., Brown, C., McCarthy, J.	Assay development for lead identification of anti-gametocidal agents	NIH R21 (NS075609-01)	\$ 136,444	2011-2012
Graves, N., Paterson, D.L.	Centre for Research Excellence in Reducing Healthcare Associated Infection	NHMRC Centre for Research Excellence Grant Application	\$2,495,795	2011-2016
Cooper, M., Paterson, D.L., Roberts, J.	Membrane-targeted antibiotic for complicated skin and skin structure (cSSSI) infections caused by MRSA, VISA, and VRE (methicillin and Vancomycin-resistant S. aureus and enterococci)	Wellcome Trust Grant	\$5,046,982	2011-2013
Clements, A., Paterson, D.L.	Clostridium difficile: assessing the risks to Australia of an emerging healthcare-related pathogen	NHMRC Project Grant Application	\$936,321	2011-2013

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Cooper, M., Paterson, D.L.	Development of novel hybrid antibiotics for the treatment of hospital and community-acquired drug resistant gram-negative and gram-positive bacterial infections	NHMRC	\$689,946	2011-2013
Paterson, D.	Queensland Health Senior Clinical Research Fellowship	Queensland Health	\$425,000	2011-2014

## Publications

- Adnan S, Paterson DL, Lipman J, Kumar S, Li J, Rudd M, Roberts JA. Pharmacokinetics of beta-lactam antibiotics in patients with intra-abdominal disease: a structured review. *Surg Infect (Larchmt)*. 2012 Feb;13(1):9-17.
- Basáñez MG, McCarthy JS, French MD, Yang GJ, Walker M, Gambhir M, Prichard RK, Churcher TS. A research agenda for helminth diseases of humans: modelling for control and elimination. *PLoS Negl Trop Dis*. 2012;6(4):e1548.
- Boatin BA, Basáñez MG, Prichard RK, Awadzi K, Barakat RM, García HH, Gazzinelli A, Grant WN, McCarthy JS, N'Goran EK, Osei-Atweneboana MY, Sripa B, Yang GJ, Lustigman S. A research agenda for helminth diseases of humans: towards control and elimination. *PLoS Negl Trop Dis*. 2012;6(4):e1547.
- Chen SC, Slavin MA, Heath CH, Playford EG, Byth K, Marriott D, Kidd SE, Bak N, Currie B, Hajkiewicz K, Korman TM, McBride WJ, Meyer W, Murray R, Sorrell TC; Australia and New Zealand Mycoses Interest Group (ANZMIG)-Cryptococcus Study. Clinical manifestations of *Cryptococcus gattii* infection: determinants of neurological sequelae and death. *Clin Infect Dis*. 2012 Sep;55(6):789-98. Epub 2012 Jun 5.
- Chen LF, Anderson DJ, Paterson DL. Overview of the epidemiology and the threat of *Klebsiella pneumoniae* carbapenemases (KPC) resistance. *Infect Drug Resist*. 2012;5:133-41.
- Craig PS, Woods ML, Boufana B, O'Loughlin B, Gimpel J, San Lett W, McManus DP. Cystic echinococcosis in a fox-hound hunt worker, UK. *Pathog Glob Health*. 2012 Oct;106(6):373-5.
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Williamson DA, Sidjabat HE, Freeman JT, Roberts SA, Silvey A, Woodhouse R, Mowat E, Dyet K, Paterson DL, Blackmore T, Burns A, Heffernan H. Identification and molecular characterisation of New Delhi metallo- $\beta$ -lactamase-1 (NDM-1)- and NDM-6-producing Enterobacteriaceae from New Zealand hospitals. Int J Antimicrob Agents. 2012 Jun;39(6):529-33.

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# Department of Internal Medicine and Aged Care

## including Obstetric Medicine Unit



**Assoc. Prof. Charles Denaro**  
Director, Internal Medicine  
and Aged Care

### Overview

The Department of Internal Medicine and Aged Care has two major entities that are engaged in research.

**The Internal Medicine Research Unit's (IMRU) whose main focus is health systems research and therapeutics.**

Health services research is led by Adjunct Professor Alison Mudge and the Team Research in Internal Medicine (TRIM) multidisciplinary research group. Major research areas include the design of acute and post-acute care models for older patients and the role of nutrition and exercise in improving health. Adjunct Professor Mudge is Clinical Director for the Australian Centre for Health Services Innovation (AUSHSI).

Participation in international trials of pharmacological agents are led by Associate Professor Chalres Denaro and Dr Paul Kubler and include trials in anticoagulants and new agents for rheumatological conditions. The unit has been an active member of the Australian anticoagulation trialists group and has been engaged in many of the multicentre trials investigating the new anticoagulants.

IMRU has a major role in quality improvement projects in the clinical service, and has led innovations such as introduction and audit of the patient risk assessment and care planning tools and developing a statewide service for Fabry disease.

**The Obstetric Medicine Unit at RBWH is active in clinical and basic science research across all medical problems which occur throughout pregnancy.**

A number of PhD candidates are currently undertaking research in areas related to maternal medical conditions in pregnancy and the effects on pregnancy outcomes. The unit has been successful in numerous research grants including NHMRC grants and RBWH grants.

The unit undertakes six obstetric medicine clinics per week and two telehealth clinics to regional and rural Queensland.

### Research staff

Name	Qualifications	Position	Interests/specialties
Assoc. Prof. Charles Denaro	MBBS, FRACP, MD	Director, Internal Medicine and Aged Care	therapeutics, cardiovascular medicine, health services
Adj. Prof. Alison Mudge	MBBS (Hons), FRACP, GradCert Health, Ec, PhD	Clinical Director, Research and Education, Internal Medicine and Aged Care	health services, geriatrics
Paul Kubler	MBBS, FRACP	Clinical Director, Clinical Pharmacology; Director, Rheumatology	therapeutics, rheumatology
Don McLeod	MBBS (Hons), FRACP, MPH	Staff Specialist	endocrinology
Julia McLeod	BSc, MBBS (Hons), FAFRM (RACP)		
Peter Donovan	MBBS, FRACP	Staff Specialist	endocrinology, clinical pharmacology
Julie Adsett	BPhy (Hons)	Senior Physiotherapist	models of exercise delivery for patients with chronic heart failure
Jessica Suna	BN, BAppSci	Clinical Nurse Consultant, Heart Failure Research	heart failure
Diane Bookless	BN, Grad Dip (Community Health), RM	Research Nurse	clinical trials
Katie Foxcroft	RN, RM, MAppSc (Research)	Coordinator, Nurse Research	obstetric medicine, clinical trials
Lisa Mitchell	RN, MSSc (Health Practice)	Project Coordinator/Nurse Researcher	health service improvement
Karen Kasper	RN, BN, MN (Leadership)	Project Coordinator/Nurse Researcher	health service improvement
Xanthe Sansome	B Phy	Research Assistant	clinical trials
Glenys Smith		Administrative Officer	



## Supervised post-graduate students

Name	Current studies	Research topic
Young, A.	PhD	Preventing nutritional decline in older adults
Adsett, J.	PhD	Hydrotherapy in heart failure
Suna, J.	MHealthSci	The effect of exercise on sleep quality in heart failure patients
McRae, P.	MPhil	Identifying interdisciplinary care needs in older surgical patients
DeLooze, J.	MPH	Epidemiology of Clostridium difficile at RBWH

## Awards and achievements

Award	Event	Name
Young Investigator Award; Nurse Investigator Award	2012 European Society of Cardiology Heart Failure Congress	Suna, J.
Patricia Dukes Postdoctoral Award, RBWH Foundation		Mudge, A.
Young Investigator Award	2012 International Congress of Dietetics	Young, A.
IMSANZ Young Investigator Award	2012 RACP Congress	Shakhovskoy, R.

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Mudge, A., Walker, P., Donovan, P., McRae, P., Reade, M.	Improving care and outcomes for older surgical inpatients	Australian Centre for Health Services Innovation Stimulus Grant 2012	\$75,000	2012-2013
Mudge, A.	THRIVE: Targeting hospitalisation risk in vulnerable elders	RBWH Foundation Patricia Dukes Fellowship	\$240,000	2012-2014
Mudge, A., Denaro, C., Adsett, J., Mullins, R., Kasper, K., Lloyd, S., Hickey, A., Cardiff, L.	THRIVE: Targeting hospitalisation risk in vulnerable elders	RBWH Strategic Research grants	\$30,000	2012
Suna, J., Mudge, A., Douglas, J., Morris, N., Smith, S., Scott, A., Adsett, J.	The effect of a supervised hospital-based exercise program on sleep quality in patients recently discharged with heart failure	RBWH Strategic Research grants	\$30,000	2012
Young, A., Mudge, A., Banks, M., Ross, L., Isenring, E.	Managing malnutrition: hospital to home outreach for malnourished elders (HHOME)	RBWH Strategic Research grants	\$30,000	2012

## Publications

Curley H, Denaro C. Dabigatran. Product familiarisation programmes: Who benefits, who shouldn't get it? (Editorial). *Int Med J.* 2012;42: 113-116.

Denaro C. Fabry disease and the role of Optometrists. *Optometry Pharma* (suppl to Australian Optometry). Dec 2012:13-14.

Donovan PJ, Iedema J, McLeod DS, Kubler P, Pillans P. Off-label use of recombinant factor VIIa in two tertiary hospitals in Queensland. *ANZ J Surg.* 2013 Mar;83(3):149-54. doi: 10.1111/ans.12005. Epub 2012 Nov 9.

McLeod DSA, Warner JV, Henman M, Gibbons K, Cowley D, McIntyre HD. Associations of serum vitamin D concentrations with obstetric glucose metabolism in a subset of the HAPO study cohort. *Diabetic Medicine.* 2012;29:e199-e204.

McLeod DSA, Watters KF, Carpenter AD, Ladenson PW, Cooper DS, Ding EL. Thyrotropin and thyroid cancer diagnosis: A systematic review and dose-response meta-analysis. *Journal of Clinical Endocrinology and Metabolism.* 2012;97(8):2682-92.

McLeod DSA, Cooper DS. The incidence and prevalence of thyroid autoimmunity. *Endocrine.* 2012;42(2):252-265.

Mudge AM, Maussen C, Duncan J, Denaro CP. Improving quality of delirium care in a general medical service with established interdisciplinary care: A controlled trial. *Int Med J.* Accepted manuscript online: 30 May 2012 DOI: 10.1111/j.1445-5994.2012.02840.x.



## Publications

Mudge AM, Young AM, Ross LJ, Isenring EA, Scott RA, Scott AN, Daniels L, Banks MB. Hospital to home outreach for malnourished elders (HHOME): a feasibility pilot. *Journal of Ageing Research and Clinical Practice* 2012; 2 (May): 131-134.

Mudge AM, Denaro CP, O'Rourke P. Improving hospital outcomes in patients admitted from residential aged care: Results from a controlled trial *Age Ageing*. 2012;41(5):670-673.

Williams KA, McLeod JC, Reinhardt G. How process analysis could improve the implementation of spinal cord stimulation treatment for chronic pain. May 2012, *Pain Management*.

Young A, Banks M, Mudge A, Ross L, Daniels L. Encouraging, Assisting and Time to EAT: Improved nutritional intake for older medical patients receiving Protected Mealtimes and/or additional nursing feeding assistance. *Clinical Nutrition* 2012 <http://dx.doi.org/10.1016/j.clnu.2012.11.09>.

Young AM, Kidston S, Banks MD, Mudge AM, Isenring EA. Malnutrition screening tools: Comparison against two validated nutrition assessment methods in older medical inpatients. *Nutrition* accepted 16 April 2012.

## Obstetric Medicine Unit

### Research staff

Name	Qualifications	Position	Interests/specialties
Dr Karin Lust	MBBS, FRACP	Clinical Director, Obstetric Medicine; Staff Specialist, General Medicine	obstetric medicine
Dr Narelle Fagermo	MBBS, FRACP	Staff Specialist, General and Obstetric Medicine	obstetric medicine
Assoc. Prof. Leonie Callaway	MBBS (Hons), FRACP, PhD, GCE Lead	Head, RBWH Clinical School; Staff Specialist, General Obstetric Medicine	obstetric medicine
Dr Penny Wolski	MBBS, FRACP	Staff Specialist, Endocrinology and Obstetric Medicine	obstetric medicine
Dr Helen Barrett	BSc (Hons), MBBS (Hons), FRACP	Staff Specialist, Endocrinology and Obstetric medicine	Obstetric medicine

### Supervised post-graduate students

Name	Current studies	Research topic
deJersey, S.	PhD	Are we missing opportunities: Understanding health behaviours associated with overweight in pregnancy
Denny, K.	PhD	Role of C5a in fetal and maternal health
Barrett, H.	PhD	Maternal lipids in pregnancy
Harris, L.	PhD	Pre-eclampsia: Early identification of at-risk patients and clinical implications
Achong, N.	PhD	Insulin requirements in the Peripartum period in type 1 diabetes mellitus
Kilgour, C.	PhD	Interprofessional communication and postpartum care of women with gestational diabetes

### Awards and achievements

Award	Event	Name
ADIPS Emerging Investigator Award	2012 Australasian Diabetes in Pregnancy Society Annual Scientific Meeting	Barrett, H.
SOMANZ Travel grant	2012 SOMANZ Annual Scientific Meeting	Denham, M.R.
SOMANZ Travel Grant and Young Investigator Award	2012 SOMANZ Annual Scientific Meeting	Davidson, N.
IADPSG Travel Grant, Australian Diabetes in Pregnancy Society		Barrett, H.

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Barrett, H.L., Callaway, L.K., de Jersey, S.J., Lingwood, B., Dekker Nitert, M., D'Emden, M.	Impact of metformin treatment for gestational diabetes on gestational lipid metabolism and infant body composition: A prospective observational study	RBWH Foundation	\$40,000	2012
Barrett, H.L., Dekker Nitert M, Callaway LK.	Placental lipases	Pfizer Australia Cardiovascular Lipid Research Grant	\$39,000	2012
Barrett, H.	PhD studies	Medical and Dental Research Scholarship for PhD studies	\$32,000 per year	2011-2014
Taylor, S.M., Woodruff, T.M., Callaway, L.K., Finnell, R.H.	Inflammation and placental dysfunction Inflammation of the womb during pregnancy and reproductive consequences	NHMRC	\$967,750	2009-2013
Mamun, A.A., O'Callaghan, M., Najman, J.M., Alata, R., Williams, G.M., Clavarino, A., McIntyre, H.D., (Associate Investigator: Callaway, L.)	Early origins, progression and aetiology of obesity, metabolic syndrome and diabetes: A 30-year follow-up study	NHMRC	\$1,151,675	2010-2014
Willmott, L., White, B.P., Gallois, C., Parker, M., Graves, N., Winch, S., (Industry Partner: Callaway, L.)	Futile treatment at the end-of-life: Legal, policy, sociological and economic perspectives	ARC Metro North Hospital and Health Service	\$268,000 \$150,000	2012-2014
Callaway, L., McIntyre, H.D., Dekker Nitert M., Tobin, J., O'Rourke, P., Wilkinson, S., McSweeney, C.	Probiotics and gestational diabetes mellitus	NHMRC	\$828,718	2012-2014
Callaway, L.	Exercise as a prescription: can we prevent adverse outcomes for at risk mothers and babies?	RBWH Foundation	\$150,000	2012
Callaway, L.	Grant to write RBWH Education Report	RBWH Private Practice Trust Fund	\$10,000	2012
Callaway, L., Rice, G., Mitchell, M., Harris, L.	Investigating the link between early pregnancy and obstetric disease	RBWH Foundation	\$38,404	2012
Suhrbier, A., Callaway, L.	Serpins and Preeclampsia	QIMR Clinician-Collaborative Research Award	\$34,200	2012

## Publications

Achong N, d'Emden M, Fagermo N, Mortimer R. Pregnancy-induced Cushing's syndrome in recurrent pregnancies: Case report and literature review *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2012;52(1):96-100.

Achong N, Callaway LK, d'Emden M, McIntyre H D, Lust K, Barrett HL. Insulin requirements in late pregnancy in women with type 1 diabetes mellitus: A retrospective review. *Diabetes Research and Clinical Practice* Volume. 2012;98(3):414-421.

Barrett, HL, Callaway, LK., Dekker Nitert, M., Probiotics: A potential role in the prevention of gestational diabetes? *Acta Diabetol* 2012;49(1):1-13.

Barrett HL, Dekker Nitert M, Conwell LS, Callaway L (2012) Probiotics for the prevention of gestational diabetes: Cochrane Review. *Cochrane Database of Systematic Reviews* DOI: 10.1002/14651858.CD009951

Barrett HL, Devin R, Clarke S, Dekker Nitert M, Boots R, Fagermo N, Callaway LK, Lust K. A fifteen year retrospective review of obstetric patients requiring critical care. *Obstet Med*. 2012;5:166-170.

Barrett HL, Gatford, KL, Houda CM, De Blasio MJ, McIntyre HD, Callaway LK, Dekker Nitert M, Coat S, Owens JA, Hague WM, Rowan J Maternal and neonatal circulating markers of metabolic and cardiovascular risk in the Metformin in Gestational diabetes (MiG) trial: responses to maternal metformin vs. insulin treatment. *Diabetes Care*. 2012;36(3):529-36.

de Jersey SJ, Nicholson JM, Callaway LK, Daniels L. A prospective study of pregnancy weight gain in Australian women. *Aust NZ J Obstet Gynecol*. 2012;52(6):545-51.

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## Publications

- Hayashia Y, Lipman J, Udy A, Ng M, McWhinney B, Ungerer J, Lust K, Roberts J. Beta-lactam therapeutic drug monitoring in the critically ill: Optimising drug exposure in patients with fluctuating renal function and hypoalbuminaemia. *Int J Antimicrob Agents*. 2012.
- Hollingsworth K, Callaway L, Duhig M, Matheson S, Scott J. The association between maltreatment in childhood and pre-pregnancy obesity in women attending an antenatal clinic in Australia. *PLoS One*. 2012;7(12):e51868.
- Lingwood BE, Storm van Leeuwen AM, Carberry AE, Fitzgerald EC, Callaway LK, Colditz PB, Ward LC. Prediction of fat-free mass and percentage body fat in neonates using bioelectrical impedance analysis and anthropometric measures: Validation against the PEA POD. *Br J Nutr*. 2012;107(10):1545-52.
- McIntyre HF, Gibbons KS, Flenady VJ, Callaway LK. Overweight and obesity in Australian mothers: epidemic or endemic? *Med J Aust*. 2012;196(3):184-188.

# Department of Neurology



**Dr Andrew Wong**  
Director, Neurology and Stroke Services

## Overview

The Neurology Research Centre had a productive year in 2012, continuing to focus on areas of clinical neurology research within the RBWH Department of Neurology.

Some achievements for the group have been:

- » The Neuromuscular Group has been successful in participating in two international MND trials. Dr Rob Henderson has received a Pride of Australia Nomination for Care and Compassion.
- » Dr Nadeeka Dissanayaka from the Movement Disorders Group was awarded a Lions Postdoctoral Fellowship to continue her research into understanding anxiety in Parkinson's disease.
- » The Stroke Research Group was successful in obtaining \$163,420 in grants, including one from the RBWH Foundation Research Advisory Committee.

The Neurology Research Centre's research is conducted with real patients who are diagnosed, treated and managed by real doctors; providing a unique opportunity to gain insights into all stages of a disease.

## Research staff

Name	Qualifications	Position	Interests/specialties
Dr Andrew Wong	MBBS, FRACP, PhD	Director, Neurology and Stroke Services	stroke
Dr Stephen Read	MBBS, FRACP, PhD	Honorary Visiting Neurologist	stroke
Dr Robert Henderson	MBBS, FRACP, PhD	Staff Specialist	neuromuscular, stroke, autonomies
Prof. Pamela McCombe	MBBS, FRACP, PhD	Visiting Medical Officer	neuromuscular, immune neurological disorders
Dr Nabeel Sheikh	MBBS	Research Fellow	stroke
Tennille Rowland	BOccThy, MPhil	Occupational Therapist	stroke
Alison Grattan	BN	Stroke/Neurology Research Clinical Nurse	stroke
Genevieve Skinner	RN	Stroke/Neurology Research Clinical Nurse Consultant	stroke
Dr Stefan Blum	MD, FRACP	Research Fellow	neuromuscular, immune neurological disorders
Dr Matthew Devine	MBBS	Research Assistant	neuromuscular
Dr Caroline Airey	MBBS	Research Fellow	neuromuscular
Nicole Hutchinson	BN	Clinical Nurse Consultant	neuromuscular
Helen Woodhouse	BN	Research Nurse	neuromuscular
Susan Heggie	RN	Research Nurse	neuromuscular
Casey Pfluger		Research Assistant	neuromuscular
James Killoran		Research Assistant	neuromuscular
Prof. David Reutens	MBBS, FRACP, MD, PhD	Foundation Prof. Experimental Neurology; Director, Centre of Advanced Imaging, UQ	epilepsy
Emeritus Prof. Mervyn Eadie	MD, PhD, FRACP	Honorary Consultant Neurologist	epilepsy
Assoc. Prof. Lata Vadlamudi	MBBS, FRACP, PhD	Staff Neurologist	epilepsy
Assoc. Prof. Cecile Lander	MBBS, FRACP	Visiting Medical Officer	epilepsy
Dr James Pelekanos	MBBS, FRACP	Staff Neurologist; Clinical Academic Fellow	epilepsy
Dr Alice-Ann Sullivan	MBBS, FRACP	Staff Neurologist	epilepsy
Dr Swapna Sebastian	MBBS, MRCP, MD	Research Fellow	epilepsy
Dr Julie Hocking	PhD, BPsych, MCogSci	Research Scientist	epilepsy
Rebecca Williams	BPsych, GDipMagResTech	Research Student	epilepsy
Jodi Frankland	BN	Epilepsy Nurse (Epilepsy Action)	epilepsy

## Research staff

Name	Qualifications	Position	Interests/specialties
Prof. Michael Pender	MBBS (Hons I), FRACP, MD, PhD	Professor, UQ	Multiple Sclerosis
Dr Judith Greer	BSc (Hons), PhD	Neuroimmunologist, UQ	Multiple Sclerosis
Bernie Gazzard	RN, RM	MS Nurse Specialist	Multiple Sclerosis
Kaye Hooper	RN, RM, BA, MPH	MS Nurse Consultant	Multiple Sclerosis
Assoc. Prof. John O'Sullivan	MBBS, FRACP, MD	Visiting Medical Officer	movement disorders, stroke
Dr Nadeeka Dissananyaka	BSc, PhD	Post-doctoral Fellow	movement disorders
Dr Zara Ioannides		Movement Disorders Fellow	movement disorders
Amy Jones	BN	Movement Disorders Nurse Specialist	movement disorders
Prof. Peter Silburn	MBBS, FRACP, PhD	Honorary Visiting Neurologist	movement disorders
Assoc. Prof. George Mellick	BSc, PhD	Research Scientist	movement disorders

## Supervised post-graduate students

Name	Current studies	Research topic
Barwood, C.	PhD	stroke
Sheikh, N.	PhD	stroke
Nguyen, G.	PhD	stroke
Roxbury, T.	PhD	stroke
Blum, S.	PhD	neuromuscular
Baumann, F.	PhD	neuromuscular
Airey, C.	PhD	neuromuscular
Killoran, J.	PhD	neuromuscular
Du, J.	PhD	epilepsy
Faizo, N.	PhD	epilepsy
Williams, R.	PhD	epilepsy
Sepehrband, F.	PhD	epilepsy

Name	Current studies	Research topic
Chupan, J.	PhD	epilepsy
Kharatishvilli, I.	Post-doctoral Fellow	epilepsy
Moldrich, R.	Post-doctoral Fellow	epilepsy
Shan, Z.	Post-doctoral Fellow	epilepsy
Ullmann, J.	Post-doctoral Fellow	epilepsy
Vegh, V.	Post-doctoral Fellow	epilepsy
Vogel, M.	Post-doctoral Fellow	epilepsy
Bosshard, S.	Post-doctoral Fellow	epilepsy
Gray, M.	Post-doctoral Fellow	epilepsy
Au, T.	BSc (Hons)	movement disorders
Bell, P.	BSc (Hons)	movement disorders

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Sheikh, N., Wong, A., Finnigan, S., Read, S.	QuEST (quantitative EEG in stroke)	RBWH Foundation	\$30,000	2012
Sheikh, N., Wong, A., Finnigan, S., Read, S.	QuEST (quantitative EEG in stroke)	National Stroke Foundation	\$20,000	2012
Wong, A.	Stroke research clinical nurse consultant position	RBWH Private Practice Trust Fund	\$123,420	2012-2013
Dissananyaka, N.	Understanding anxiety in Parkinson's disease	RBWH Foundation	\$180,000	2010-2012
Dissananyaka, N.	Improving diagnostic methods of anxiety disorders in Parkinson's disease: Phase 2	RBWH Foundation	\$35,000	2012
Dissananyaka, N.	Cognitive sequelae in Parkinson's disease: identifying the neural substrates	Parkinson's Queensland	\$25,000	2012

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Dissananyaka, N.	Perspectives and experiences of Parkinson's disease patients with drug-induced impulse control disorders	UQ Early Career Research Grant	\$36,000	2012
O'Sullivan, J.	Therapeutic targeting of complement C5a receptor in Huntington's disease	NHMRC Project Grant APP1004455	\$452,318	2011-2013
Dr Nadeeka Dissanayaka	Cognitive Behaviour therapy to treat depression and anxiety in Parkinson's disease	UQ-UWA Bilateral Research Collaboration Award	\$18,000	2012
O'Sullivan, J., Troiana, A.	Combined imaging in the diagnosis of early corticobasal syndrome (CBS)	Brain Foundation Grant	\$30,000	2012
Brown, M.A., Xu, X., Bartlett, P.F., Wallace, R.H., Visscher, P.M., Mowry, B.J., Reutens, D.C.	Sino-Australian neurogenetics initiative	ARC Linkage Project Grant LP110200926	\$690,000	2011 - 2014
Ullmann, J., Yang, S., Kurniawan, N., Janke, A., Wullimann, M., Reutens, D.C.	A population-based atlas of the zebrafish brain for quantitative phenotypic comparisons of disease models	NIH RO3 Grant	\$120,000	2012 - 2014
Reutens, D.C.		NHMRC Practitioner Fellowship Grant No: 631352	\$504,875	2010 - 2014
Berkovic, S.F., Jackson, G.D., Gecz, J., Connelly, A., Scheffer, I.E., Reutens, D.C., Petrou, S., Dibbens, L., Calamante, F., Thomas, P.	Neurobiology of human epilepsy: Genes, cellular mechanisms, networks and whole brain	NHMRC Program Grant Grant No: 628952	\$16,450,000	2011 - 2015

**Please note** the Neurology Research Centre 2012 Annual Report is available for further information on research and activities undertaken. Contact the department to obtain a copy.

# Department of Nuclear Medicine

## including Queensland PET Service



**Dr William Fong**  
Director, Nuclear Medicine

### Overview

The Department of Nuclear Medicine at RBWH is one of the largest and busiest in Australia. It provides a referral, diagnostic and therapeutic nuclear medicine service with four SPECT/CT gamma cameras, one solid state cardiac camera, BMD dual energy X-ray absorptiometry (DEXA) and a pQCT scanner.

Research interests in nuclear medicine include image reconstruction methodologies, application of gating and bone mineral densitometry in various disease states.

The department hosts the statewide Queensland PET Service, which operates two PET/CT scanners and a cyclotron in Queensland. It offers research facilities to a wide variety of investigators. In addition to conventional tracers such as fluoro-deoxyglucose (18FDG), the service also conducts research using 18FDOPA, 18FLT and 68Ga-DOTATATE. Other tracers, such as 18FMISO, 18FET and 11C-Amino Acids, will soon be available enabling the study and research of a greater range of diseases.

There is also ongoing research interest in image reconstruction algorithms, respiratory gating and image analysis techniques.

### Research staff

Name	Qualifications	Position	Interests/specialties
Dr William Fong	MBBS, FRACP	Director, Nuclear Medicine	paediatric nuclear medicine
Dr David Macfarlane	MBBS, FRACP	Deputy Director, Nuclear Medicine; Director, Specialised PET Services Queensland	radionuclide therapy, positron emission tomography (PET)
Dr Aravind Ravi Kumar	MBBS, FRACP	Senior Staff Specialist	nuclear cardiology, nuclear oncology, training and education
Dr Frank Fiumara	MBBS, FRACP, MBA	Senior Staff Specialist	PET, paediatric nuclear medicine
Dr Paul Thomas	BMed, FRACP	Assistant Director, Specialised PET Services Queensland	neuro-oncology imaging, kinetic analysis of PET tracers
Dr Marissa Bartlett	PhD (Physics), MACPSEM	Senior Medical Physicist	radiation safety, nuclear medicine and PET radio isotope imaging
Dr Matthew Griffiths	PhD (Medical Physics), MACPSEM	Director of Medical Physicists	cyclotron production of radioisotopes, medical imaging of radioisotopes
Dr Jye Smith	PhD (Medical Physics), MACPSEM	Senior Medical Physicist	computer processing of medical images, radio isotope production
Bruce Wallace	MAppSc (Medical Physics)	Medical Physicist	radiation safety
Dr Stephen Taylor	PhD (Synthetic Organic Chemistry)	PET Radiochemist	radiopharmaceutical chemistry, PET radiopharmaceutical development
Ross Vecchio	BSc (Chem)	Radiochemist	quality control systems
Sandra Kemp	General Nursing	Clinical Nurse Consultant; Study Coordinator (Nursing)	oncology, neurology
Natalie Fletcher	BNursing	Clinical Nurse; Research Nurse	oncology
Travis Pearson	BAppSci (NMT), MBA	Director, Nuclear Medicine Technology	multi-modality imaging
Louise Campbell	BAppSci (NMT), GradDipBusAdmin	Director, PET Technology	multi-modality imaging
Peter Garcia	BAppSci (NMT), MHlthSci	Senior Nuclear Medicine Scientist	multi-modality imaging
Nikki-Louise Scott	BSc (Hons) (BiomedSci), GradDip (NMT)	Nuclear Medicine Scientist	multi-modality imaging
Sarah Frecker	BAppSci (NMT)	Nuclear Medicine Scientist	multi-modality imaging
Rowena Rose	BAppSci (NMT)	Nuclear Medicine Scientist	multi-modality imaging



## Supervised post-graduate students

Name	Current studies	Research topic
Dancewicz, O.	Master of Applied Science (Medical Physics)	3D printing of imaging phantoms

## Awards and achievements

Award	Event	Name
2012 ANZAPNM Registrar Award	ANZSNM Annual Scientific Meeting	Bhatt, M.K.

## Publications

Bhatt M, Ravi Kumar A. FDG PET/CT appearance of benign Pilomatricoma. Clin Nucl Med. 2012;37(7):684-6.

Fay, M and Thomas, P. Functional imaging using PET and radiotherapy planning. Cancer Forum. 2012;36:77-79.

Lee J, Hartnett G, Ravi Kumar A. Lesion Location in Clinical Significance of Incidental Colorectal FDG Uptake (letter). Clin Endosc. 2012;45(4):451-2

Lee J, Hartnett G, Ravi Kumar A. Timely investigation of incidental focal colorectal FDG uptake (letter). Colorectal Dis. 2012;14(7):897-8.

Ravi Kumar A, Hartnett G, Lee J. FDG-avid lesions on PET scans without corresponding pathological findings (letter). J Gastroenterol. 2012;47(6):726-7.

Huang YT, Ravi Kumar A. Potential for truncation the scan length of restaging FDG-PET/CT following chemoradiotherapy in head and neck squamous cell carcinoma. Nucl Med Commun. 2012;33(5):503-8.

Lee J, Hartnett G, Ravi Kumar A. Predictive value according to location of incidental focal colorectal fluorodeoxyglucose uptake on positron emission tomography scans (letter). Colorectal Dis. 2012;14(5):642-3.

Nguyen P, Bashirzadeh F, Ravi Kumar A, Fielding D. Optical differentiation between malignant and benign lymphadenopathy by greyscale texture analysis of endobronchial ultrasound convex probe images. Chest. 2012;141(3):709-15.

Pryor D, Porceddu S, Thomas P, Burmeister B. Head and Neck. Economic analysis of FDG-PET – guided management of the neck after primary chemoradiotherapy for node-positive head and neck squamous cell carcinoma. Published on-line first May 2012. PMID:22987812 DOI 10.1002/hed.23108.

Smith J, Bartlett M, Thomas P. Histogram matching for the generation of ventilation-perfusion difference images in SPECT lung scanning: A phantom study. Medical Physics. 2012;39:3026-3030 PMID:22755687 DOI:10.1118/1.4712220.

# Palliative Care Service



**Dr Carol Douglas**  
Clinical Director,  
Palliative Care

## Overview

The Palliative Care Service provides a consultative model of care to any patient at RBWH with progressive life-limiting disease. Patients with progressive malignancy or chronic disease and acute onset life limiting illness are referred when there are unmet complex needs.

The team is comprised of Staff Specialists in Palliative Medicine, a basic Medical Registrar, Advanced Trainee Palliative Medicine and Clinical Nurses.

Approximately 900 patients received care supported by the Palliative Care Service in 2012, with 260 patients dying with service support in this period.

There is no funded, dedicated research position within the service.

The service supports research initiatives generated externally by collaborating with leading researchers in palliative medicine and palliative care, through recruitment of RBWH patients to medication studies and by participation in studies through collaboration with colleagues at RBWH/ UQ/QUT that contribute to the understanding of patients' experiences with progressive life-limiting disease at the end-of-life.

## Research staff

Name	Qualifications	Position	Interests/specialties
Dr Carol Douglas	MChB, FRACGP, FChPM, Dip Family Med, Dip Palliative Med	Clinical Director, Palliative Care; Senior Staff Specialist,	pain medicine, Motor Neurone Disease, renal disease

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Connell, S., Douglas, C.	Achieving needs-based end-of-life services: A prospective, longitudinal study of pathways for advanced cancer patients (multi-site research)	Cancer Council Queensland Research Project Grant	\$100,000	2012-2013
Mitchell, G., Douglas, C.	Single patient multiple cross-over trials to determine the efficacy of pilocarpine in relieving dry mouth in patients with cancer (multi-site research)	Cancer Council Queensland Research Project Grant	\$163,000	2010-2012

# Department of Pharmacy



**Assoc. Prof. Ian Coombes**  
Director, Pharmacy

## Overview

The Department of Pharmacy continues to develop its research portfolio and the department has had a hugely successful year. We have published 42 peer-reviewed articles, many in high-impact factor journals. We are aiming to increase the number of staff publishing as well as the number of papers published and look forward to delivering on this in future years. We are also proud of the extensive number of collaborators that we have published with which includes authors from many institutions across many countries.

We have been very successful in our grant applications. This includes an NHMRC Project Grant and a NHMRC Career Development Fellowship. Our Conjoint Research Pharmacist, Dr Karen Whitfield, has formally joined the department and working on three research higher degree projects within Women's and Newborn Services.

Our presentations and other contributions to conferences has also increased in 2012. Our research team has established a strong framework for converting our studies into conference-level publications with plans to further develop this into journal publications as our research system further develops. Our invited presentations to conferences is quite impressive with approximately 10 invited presentations at international conferences for our research team in 2012. These conferences include world leading pharmacy practice, critical care and infectious diseases conferences.

## Research staff

Name	Qualifications	Position	Interests/specialties
Assoc. Prof. Ian Coombes	BPharm, PhD	Director, Pharmacy	medication safety, pharmacy practice
Dr Michael Barras	BPharm, PhD	Assistant Director (Clinical)	medication safety, pharmacokinetics, therapeutic drug monitoring
Margie Butnoris	BPharm	Assistant Director (Inventory)	pharmacy practice
Dr Jason Roberts	BAppSc, BPharm (Hons I), PhD	Consultant Pharmacist	pharmacokinetics, drug therapy in critically ill patients, therapeutic drug monitoring
Dr Lesley Ross-Lee	BPharm, PhD	Senior Pharmacist, Clinical Trials	clinical trials
Jessica Toleman	BPharm	Assistant Director, Cancer Care Services	quality use of medicines
Kelly Mulvogue	BPharm	Senior Pharmacist	clinical therapeutics, pharmacy practice
Neil Cottrell	BPharm	Hon. Research Consultant	clinical therapeutics, pharmacy practice
Assoc. Prof. Jennifer Martin	MBBS, PhD	Clinical Pharmacology; Staff Specialist	clinical therapeutics, therapeutic drug monitoring
Dr Paul Kubler	MBBS	Clinical Pharmacology; Staff Specialist	clinical therapeutics
Elizabeth Doran	MPharm	Senior Pharmacist	clinical therapeutics
Carla Dawson		Pharmacy Technician	pharmacy practice
Champika Patullo	BPharm	QUM Pharmacist	quality use of medicines
Julia Holman	BPharm	QUM Pharmacist	quality use of medicines
Midori Nakagaki	BPharm	Senior Pharmacist, Cancer Care	clinical therapeutics
Jonathan Hall	BPharm	Clinical Pharmacist	clinical therapeutics
Serena Rofail	BPharm	Senior Pharmacist	clinical therapeutics
Julian Lindsay	BPharm	Clinical Pharmacist	clinical therapeutics
Brooke Myers	BPharm	Senior Pharmacist	clinical therapeutics
Deborah Boland	BPharm	Senior Pharmacist	medicines information
Helen Trenerry	BPharm	Assistant Director, Medicines Information Service	medicines information
Mary Tredinnick	BPharm	Senior Pharmacist	clinical therapeutics
Erin O'Donnell	BPharm	Clinical Pharmacist	clinical therapeutics
Kate Murphy	BPharm	Senior Pharmacist	clinical therapeutics
Else Peusschers	BPharm	Senior Pharmacist	clinical therapeutics in mental health

## Supervised post-graduate students

Name	Current studies	Research topic
Mulvogue, K.	MPhil	Improving prescribing in geriatric patients
Patel, B.	MPhil	Characteristics of blood stream infections in burn injury patients: A ten year retrospective study at RBWH
Adnan, S.	PhD	Pharmacokinetics of commonly prescribed antibiotic in critically ill patients with indwelling surgical drains and with multi-drug resistant acinetobacter spp infections
Varghese, J.	PhD	Dose optimisation of antibiotics in different forms of renal replacement therapy
Kaur, S.	PhD	Improving drug utilisation in Australian aged care facilities
Mawbey, I.	MCP	Does a vancomycin prescribing protocol reduce the prescription of linezolid for patients with infections caused by multi-resistant Gram positive organisms such as methicillin-resistant Staphylococcus aureus?
Wong, G.	MPhil	BeTM Study: A multi-centre study to evaluate the outcome of empiric dosing of beta-lactam antibiotics in reaching pharmacodynamic targets and utility of therapeutic drug monitoring programme in critically ill patients
Hanrahan, T.	MPhil	Vancomycin nephrotoxicity in critically ill patients: fact or fiction?
Sinnollareddy, M.	PhD	Using pharmacokinetics and pharmacodynamics to optimise dosing of antifungal agents in critically ill patients
Sime, F.	PhD	Does beta-lactam pharmacokinetic variability in critically ill patients justify therapeutic drug monitoring?
Jamal, J-A.	PhD	Improving antibiotic dosing in special situations in the ICU: burns, renal replacement therapy and extracorporeal membrane oxygenation
Abdul-Aziz, MH.	PhD	Continuous infusion vs. bolus dosing: implications for beta-lactam antibiotics
Parker-Scott, S.	PhD	Revitalising an old drug: saving critically ill patients with resistant infections with fosfomycin
Economou, C.	PhD	The pharmacokinetics of vancomycin, meropenem and piperacillin-tazobactam in critically ill patients undergoing sustained low-efficiency dialysis (SLED)

## Awards and achievements

Award	Event	Name
Young Pharmacist of the Year Award, Pharmaceutical Society of Australia		Myers, B.
Australian Clinical Pharmacy Award, Society of Hospital Pharmacists of Australia		Roberts, J.A.
David Neville Prize for 'Therapeutic drug monitoring of beta-lactam antibiotics in burns patients: A one year prospective study.'	2012 Royal Australian College of Surgeons Annual Scientific Meeting, North Stradbroke Island	Roberts, J.A.

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Ho, K.M., Corcoran, T., Lipman, J., Roberts, J., Barden, A., Mori, T.	Determinants of urinary output response to intravenous frusemide in patients with acute kidney injury	ANZCA 13/004	\$38,300	2012-2013
Lipman J, Roberts J, Paratz J, Paterson D, Fraser J	Pharmacokinetic studies in critically ill patients	UQ NHMRC Equipment and Infrastructure	\$310,000	2012
Lipman J, Roberts J	BLING II	Baxter Unrestricted grant	\$40,000	2012-2013

## Publications

- Abbott IJ, Roberts JA. Infusional  $\beta$ -lactam antibiotics in febrile neutropenia: has the time come? *Curr Opin Infect Dis.* 2012;25(6):619-25.
- Abdul-Aziz MH, Dulhunty JM, Bellomo R, Lipman J, Roberts JA. Continuous beta-lactam infusion in critically ill patients: The clinical evidence. *Ann Intensive Care.* 2012;2(1):37.
- Adnan S, Paterson DL, Lipman J, Kumar S, Li J, Rudd M, Roberts JA. Pharmacokinetics of beta-lactam antibiotics in patients with intra-abdominal disease: a structured review. *Surg Infect (Larchmt).* 2012;13(1):9-17.
- Briscoe SE, McWhinney BC, Lipman J, Roberts JA, Ungerer JPI. A method for determining the free (unbound) concentration of ten beta-lactam antibiotics in human plasma using high performance liquid chromatography with ultraviolet detection. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2012;907:178-84.
- Carlier M, Stove V, Roberts JA, Van de Velde E, De Waele JJ, Verstraete AG. Quantification of seven  $\beta$ -lactam antibiotics and two  $\beta$ -lactamase inhibitors in human plasma using a validated UPLC-MS/MS method. *Int J Antimicrob Agents.* 2012;40(5):416-22.
- Coombes I, Kirsa S, Dowling H, Galbraith K, Duggan C, Bates I. Advancing pharmacy practice in Australia: The importance of national and global partnerships. *J Pharm Pract Res.* 2012;42(4):261-3.
- Dhanani J, Roberts JA, Lipman J. Antibiotic therapy of pneumonia in critical care. *Curr Resp Med Rev.* 2012;8:228-238.
- Doran E, Iedema J, Ryan L, Coombes I. Drug Interactions: Fatal rhabdomyolysis following voriconazole and simvastatin. *Aust Prescr.* 2012;35(3):88-9.
- Fraser JF, Shekar K, Diab S, Dunster K, Foley SR, McDonald CI, Passmore M, Simonova G, Roberts JA, Platts DG, Mullany DV, Fung YL. ECMO – the clinician’s view. *ISBT Science Series.* 2012; 7:82–88.
- Hale A, Stowasser D, Coombes I, Stokes J, Nissen L. An evaluation framework for non-medical prescribing research. *Aust Health Rev.* 2012;36:224-228.
- Jamal JA, Economou CJ, Lipman J, Roberts JA. Improving antibiotic dosing in special situations in the ICU: Burns, renal replacement therapy and extracorporeal membrane oxygenation. *Curr Opin Crit Care.* 2012;18(5):460-71.
- Iedema J, Barras M, Sundac L, Coombes I. Dabigatran: A new safe drug to replace an old poison? *Aust Prescr.* 2012;35(2):64-5.
- Kaur S, Roberts JA, Roberts MS. Evaluation of medication-related problems in medication reviews: a comparative perspective. *Ann Pharmacother.* 2012;46(7-8):972-82.
- Li J, Udy AA, Kirkpatrick CM, Lipman J, Roberts JA. Improving vancomycin prescription in critical illness through a drug use evaluation process: a weight-based dosing intervention study. *Int J Antimicrob Agents.* 2012;39(1):69-72.
- Martin J, Norris R, Barras M. Gentamicin Use: More clinical outcome evidence needed. *J Clin Toxicol.* 2012;2:8.
- Martin J, Barras M, Ah Yui N, Kirkpatrick C, Kubler P, Norris R. Gentamicin monitoring practices in teaching hospitals: Time to undertake the necessary randomised controlled trial. *J Clin Toxicol.* 2012;2:8.
- Myers B. Changes to Pharia Classification System. On behalf of the Qld Early Career Pharmacists Group of the Pharmaceutical Society of Australia. *Aust Pharm J.* November 2012.
- Myers B. OTC Supply of Codeine-Combination Analgesics. On behalf of the Queensland Early Career Pharmacists Group of the Pharmaceutical Society of Australia. *Aust Pharm J.* December 2012.
- Mohd Hafiz AA, Staatz CE, Kirkpatrick CM, Lipman J, Roberts JA. Continuous infusion vs. bolus dosing: Implications for beta-lactam antibiotics. *Minerva Anesthesiol.* 2012;78(1):94-104.
- Patel BM, Paratz JD, Mallett A, Lipman J, Rudd M, Muller MJ, Paterson DL, Roberts JA. Characteristics of bloodstream infections in burn patients: An 11-year retrospective study. *Burns.* 2012;38(5):685-90.
- Patel BM, Paratz J, See NC, Muller MJ, Rudd M, Paterson D, Briscoe SE, Ungerer J, McWhinney BC, Lipman J, Roberts JA. Therapeutic drug monitoring of beta-lactam antibiotics in burns patients: A one-year prospective study. *Ther Drug Monit.* 2012;34(2):160-4.
- Roberts DM, Roberts JA, Roberts MS, Liu X, Nair P, Cole L, Lipman J, Bellomo R; RENAL Replacement Therapy Study Investigators. Variability of antibiotic concentrations in critically ill patients receiving continuous renal replacement therapy: A multicentre pharmacokinetic study. *Crit Care Med.* 2012;40(5):1523-8.
- Roberts JA, De Waele JJ, Dimopoulos G, Koulenti D, Martin C, Montravers P, Rello J, Rhodes A, Starr T, Wallis SC, Lipman J. DALI: Defining antibiotic levels in intensive care unit patients: A multi-centre point of prevalence study to determine whether contemporary antibiotic dosing for critically ill patients is therapeutic. *BMC Infect Dis.* 2012;12(1):152.
- Roberts JA, Joynt GM, Choi GY, Gomersall CD, Lipman J. How to optimise antimicrobial prescriptions in the Intensive Care Unit: Principles of individualised dosing using pharmacokinetics and pharmacodynamics. *Int J Antimicrob Agents.* 2012;39(3):187-92.
- Roberts JA, Lipman J. Editorial commentary: Closing the loop: A colistin clinical study to confirm dosing recommendations from PK/PD modeling. *Clin Infect Dis.* 2012;54(12):1727-9.
- Roberts JA. Australian Clinical Pharmacy Award Oration. *J Pharm Pract Res.* 2012;42(4):298-300.
- Roberts JA, Norris R, Paterson DL, Martin JH. Therapeutic drug monitoring of antimicrobials. *Br J Clin Pharmacol.* 2012;73(1):27-36.

## Publications

- Rutter V, Wong C, Coombes I, Cardiff L, Duggan C, Yee M, Lim K, Bates I. Use of a general level framework to facilitate performance improvement in hospital pharmacists in Singapore. *Am J Pharm Educ.* 2012;76(6):107.
- Shekar K, Fung YL, Diab S, Mullany DV, McDonald CI, Dunster KR, Fisquet S, Platts DG, Stewart D, Wallis SC, Smith MT, Roberts JA, Fraser JF. Development of simulated and ovine models of extracorporeal life support to improve understanding of circuit-host interactions. *Crit Care Resus.* 2012;14(2):105-11.
- Shekar K, Roberts JA, Mullany DV, Corley A, Fisquet S, Bull TN, Barnett AG, Fraser JF. Increased sedation requirements in patients receiving extracorporeal membrane oxygenation for respiratory and cardiorespiratory failure. *Anaesth Intensive Care.* 2012;40(4):648-55.
- Sime FB, Roberts MS, Peake SL, Lipman J, Roberts JA. Does beta-lactam pharmacokinetic variability in critically ill patients justify therapeutic drug monitoring? A Systematic Review. *Ann Intensive Care.* 2012;2(1):35.
- Sinnollareddy M, Peake SL, Roberts MS, Lipman J, Roberts JA. Using pharmacokinetics and pharmacodynamics to optimise dosing of antifungal agents in critically ill patients: a systematic review. *Int J Antimicrob Agents.* 2012;39(1):1-10.
- Sinnollareddy MG, Roberts MS, Lipman J, Roberts JA.  $\beta$ -lactam pharmacokinetics and pharmacodynamics in critically ill patients and strategies for dose optimisation: a structured review. *Clin Exp Pharmacol Physiol.* 2012;39(6):489-96.
- Smith NL, Freebairn R, Park M, Wallis SC, Roberts JA, Lipman J. The need for therapeutic drug monitoring when using cefepime in CRRT: Seizures associated with cefepime. *Crit Care Resus.* 2012;14(4):312-5.
- Shekar K, Roberts JA, McDonald CI, Fisquet S, Barnett AG, Mullany DV, Ghassabian S, Wallis SC, Fung YL, Smith MT, Fraser JF. Sequestration of drugs in the circuit may lead to therapeutic failure during extracorporeal membrane oxygenation. *Crit Care.* 2012; 16(5):R194.
- Shekar K, Roberts JA, Welch S, Buscher H, Rudham S, Burrows F, Ghassabian S, Wallis SC, Levkovich B, Pellegrino V, McGuinness S, Parke R, Barnett AG, Walsham J, Mullany DV, Smith MT, Fraser JF. ASAP ECMO: Antibiotic, Sedative and Analgesic Pharmacokinetics during Extracorporeal Membrane Oxygenation: A multi-centre study to optimise drug therapy during ECMO. *BMC Anesthesiol.* 2012 28;12(1):29.
- Shekar K, Fraser JF, Smith MT, Roberts JA. Pharmacokinetic changes in patients receiving extracorporeal membrane oxygenation. *J Crit Care.* 2012;27(6):741.
- Udy AA, Varghese JM, Altukroni M, Briscoe S, McWhinney BC, Ungerer JP, Lipman J, Roberts JA. Subtherapeutic initial  $\beta$ -lactam concentrations in select critically ill patients: Association between augmented renal clearance and low trough drug concentrations. *Chest.* 2012;142(1):30-9.
- Udy AA, Altukroni M, Jarrett P, Roberts JA, Lipman J. A comparison of pulse contour wave analysis and ultrasonic cardiac output monitoring in the critically ill. *Anaesth Intensive Care.* 2012;40(4):631-7.
- Udy AA, Roberts JA, Dewaele JJ, Paterson DL, Lipman J. What's behind the failure of emerging antibiotics in the critically ill? Understanding the impact of altered pharmacokinetics and augmented renal clearance. *Int J Antimicrob Agents.* 2012;39(6):455-7.
- Varghese JM, Roberts JA, Wallis SC, Boots RJ, Healy H, Fassett RG, Lipman J, Ranganathan D. Pharmacokinetics of intraperitoneal gentamicin in peritoneal dialysis patients with peritonitis (GIPD Study). *Clin J Am Soc Nephrol.* 2012;7(8):1249-56.

# Department of Renal Medicine



**Dr Helen Healy**  
Director, Renal Medicine

## Overview

Renal medicine has continued to build substantial research productivity with a strong focus on investigator-initiated research. There has been outstanding progress of the CKD.QLD collaboration, a statewide Queensland Health, and The University of Queensland (UQ) Centre for Chronic Disease, initiative lead by Professors Wendy Hoy and Robert Fassett. This collaboration is undertaking internationally recognised CKD research and is aiming to fill a longstanding void in CKD knowledge.

Renal Medicine is also leading palliative care research in Australia in collaboration with other national leaders. Nursing-led research is gaining strength through Professor Anne Bonner from QUT, who holds a Fellow appointment in the Professorial Renal Research Nursing Unit.

There has been an increased number of research presentations at National and International meetings with an outstanding contribution from Drs Helen Healy and Ray Wilkinson through a prestigious oral presentation of the work of the Kidney Research Laboratory at the Annual Scientific Meeting of the American Society of Nephrology in San Diego in November 2012.

Renal research has been bolstered by the appointment of Professor Keshwar Baboolal, a nephrologist, initially as Internal Medicine Executive Director and subsequently as interim Executive Director, RBWH.

Renal medicine researchers also perform high-level research manuscript and national and international research grant reviews. There has been increased focus on research metrics with targets set to publish in high impact factor scientific journals. Ongoing mentoring of junior researchers has been recognised and Dr Andrew Mallet an advanced trainee in Nephrology was awarded a prestigious Churchill Fellowship to study kidney genetic disorders internationally. He will start a PhD in Renal Research at RBWH in 2013. Dr Andrew Kassianos, an early career researcher, commenced his Patty Dukes Post-doctoral Fellowship, awarded by the RBWH Foundation for the years 2013-2015 inclusive, in the Kidney Research Laboratory.

## Research staff

Name	Qualifications	Position	Interests/specialties
Prof. Robert Fassett	BMedSc, MBBS, PhD FRACP, FASN	Director, Renal Research; Pre-eminent Staff Specialist	chronic kidney disease, clinical trials, oxidative stress and inflammation, exercise, astaxanthin, omega-3 polyunsaturated fatty acids, cardiovascular disease, palliative care, statins, sulphoraphane
Dr Helen Healy	MBBS, PhD, FRACP	Director, Renal Medicine; Eminent Staff Specialist	mechanisms of progression of chronic kidney disease, dendritic cells, polycystic kidney disease, genome in kidney disease
Dr Dwaraka Ranganathan	MD, DM, FRCP, FRACP	Senior Staff Specialist	peritoneal dialysis, clinical trials, antibiotics, vasculitis, home dialysis therapies, pharmacokinetics and pharmacodynamics
Dr Adrian Kark	MBChB, FRACP	Senior Staff Specialist	chronic kidney disease, salt
Dr Vincent D'Intini	MBBS, FRACP	Senior Staff Specialist	acute kidney injury
Dr George T John	MBBS, FRACP	Senior Staff Specialist	immunosuppression, kidney transplantation, infectious diseases
Dr Sharad Ratanjie	MBChB, FRACP	Senior Staff Specialist	haemodialysis, erythropoietin stimulating agents
Dr Ray Wilkinson	AssocDMedTech, BSc (Hons), PhD	Post-doctoral Fellow, Kidney Research Laboratory	dendritic cells, innate immunity, T/B lymphocytes
Dr Andrew Kassianos	BSc (Hons), Master (Biotech), PhD	Post-doctoral Fellow, Kidney Research Laboratory	dendritic cell biology in the kidney, innate immunity, T/B lymphocytes
Dr Sree Krishna Venuthurupalli	MBBS, FRACP	PhD student	chronic kidney disease, CKD.QLD, registry
Xiangju Wang	MSc	Research Scientist, Kidney Research Laboratory	cell senescence, laser capture microscopy, multiplex tandem PCR
Prof. Ann Bonner	BAppSc (Nurs), MA PhD	Professor, Renal Nursing, QUT	chronic kidney disease, Nursing practice Adherence to therapies
Danielle Heffernan	RN, GradDipHealthMg, MSF	Assistant Nursing Director, Renal Medicine	renal supportive care



## Research staff

Name	Qualifications	Position	Interests/specialties
Sonya Coleman	MNP	Chronic kidney disease	chronic kidney disease
Lesley Williams	RN	Home Independent Dialysis and Transition Services	peritoneal and home dialysis, motivational interviewing, self care
Nicola Williams	RN	Home, Independent dialysis and Transition Services	peritoneal and home dialysis, motivational interviewing, self care
Margaret Jacks	RN	Renal Transplant Coordinator	renal transplantation
Caroline Shelverton	RN	Renal Transplant Coordinator	renal transplantation
Julie Owens	BN	Renal Transplant Coordinator, Home, Independent Dialysis and Transition Services	renal transplantation, home therapies
Tony Blinkhorn	BN	Haemodialysis	haemodialysis
Rebecca Russo	BN	Chronic kidney disease	chronic kidney disease
Anne Salisbury	RN	Executive Coordinator, CKD.QLD	chronic kidney disease, registry
Julie Kirby	RN	Clinical Trial Coordinator	clinical trials
Ursula Sanderson	BN	Clinical Trial Coordinator	clinical trials
Ritza Driver	RN, MSc (Echocardiography)	Research Technician	cardiovascular measurements
Belinda Morey	BHlthSc (NutrDiet), Hons, BAppSc (HMS), Hons	Senior Dietitian, Nutritionist	salt in chronic kidney disease
Tania Whitlock		Administrative Officer	renal research
Elisabeth Hamernik		Clinical Psychologist	adherence to therapies, depression

## Supervised post-graduate students

Name	Current studies	Research topic
Matsumoto, A.	PhD	Effects of exercise training and antioxidant supplementation on endothelial cell gene expression
Houghton, C.	PhD	Effects of sulphorophane on kidney function in CKD patients with Type 2 Diabetes
Alasmari, H.	PhD	Examining intensive care nurses' clinical decision-making associated with acute kidney injury and continuous renal replacement therapy
Almutary, H.	PhD	Exploring symptom clusters in people with chronic kidney disease
Sampangi, S.	PhD	The role of renal proximal tubular epithelial cells (PTEC) In autologous immune-modulation
Krishna Venuthurupalli, S	PhD	CKD.QLD
Thepha, T	PhD	Self-management program in people with chronic kidney disease stage four in north-east Thailand
He, W.	PhD	Exploring the factors associated with concordance with lifestyle modifications in Chinese people with hypertension
Afrin, S.	Masters	A novel three-dimensional in vitro model to study immune cell and renal cell interactions
Hayes, B.	DHlthSc	Job satisfaction, stress and burnout in haemodialysis nurses
Clarke, C.	DHlthSc	The use of alcohol and its influence on injury severity score, outcome and treatment after major trauma

## Awards and achievements

Award	Event	Name
Patty Dukes Post-doctoral Fellowship, RBWH Foundation		Kassianos, A.
Best Research Paper	2012 Renal Society of Australasia Conference	Bonner, A.
Best Advanced Paper	2012 Renal Society of Australasia Conference	Bonner, A.
Masters Strategic Foresight, Swinburne University		Heffernan, D.
Masters Advanced Practice Nurse (Renal), James Cook University		Berquier, I.

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Ranganathan, D.	POEMSLUN study	Novartis	\$109,760	2011-2012
Healy, H.	Dendritic cell subsets in inflammation in chronic kidney disease	RBWH Private Practice Trust Fund	\$23,000	2012
Healy, H.	Royal Brisbane and Women's Hospital Foundation Fellowship Renal Conjoint Laboratory	RBWH Foundation	\$240,000	2012-2015
Fassett, R.G., Johnson, D.J. et al	A randomised, placebo-controlled trial of Oxpentifylline versus placebo in the treatment of erythropoietin-resistant anemia in chronic kidney disease	NHMRC Project Grant	\$333,408.80	2011-2012
Fassett, R.G., Coombes, J.S.	A metabolic testing suite for clinical exercise physiology, sports science and sports nutrition research	The University of Queensland	\$159,325	2011-2012
Ranganathan, D.	Timely Peritoneal Dialysis Trial	Baxter Clinical Excellence Commission	\$30,000	2010-2012
Fassett, R.G., Coombes, J.S.	Effects of astaxanthin on oxidative stress and inflammation and vascular function in renal transplant patients	RBWH Foundation	\$25,000	2009-2012
Fassett, R.G., Shing, C., Coombe, J.S.	Premature cell aging	Clifford Craig Medical Research Trust	\$6273	2011-2012
Fassett, R.G., Coombes, J.S.	COMIVID Study	Baxter Clinical Excellence Commission	\$75,000	2011-2013
Fassett, R.G., Houghton, C., Coombes, J.S.	The effects of Sulforaphane on the antioxidant response element and arterial stiffness in patients with Type 2 Diabetes	RBWH Research Grant	\$30,000	2012
Fassett, R.G., Hoy, W.	CKD Queensland	AMGEN Australia	\$500,000	2010-2013

## Publications

Alexander S, Varughese S, David VG, Kodgire SV, Mukha RP, Kekre NS, Tamarasi V, Jacob CK, John GT. Extensive emphysematous pyelonephritis in a renal allograft treated conservatively: Case report and review of the literature. *Transpl Infect Dis.* 2012 Dec;14(6):E150-5.

Baboolal K, Griffiths JD, Knight VA, Nelson AV, Voake C, Williams JE. How efficient can an emergency unit be? A perfect world model. *Emerg Med J.* 2012 Dec;29(12):972-7.

Blinkhorn, T. Telehealth and nephrology health care: A review of the literature. *Renal Society of Australasia Journal.* 2012;8(3): 132-139.

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Bonner A. Nursing management: Acute kidney injury and chronic kidney disease: Lewis's medical-surgical nursing. In Brown D, Edwards H, (Eds.) (3rd ed) 2012:1292-1333. Elsevier: Sydney.

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- Bonner A, Lloyd AM. Exploring the information practices of people with end stage kidney disease. *Journal of Renal Care*. 2012;38(3):124-130.
- Bonner A, Pryor J. Working in multidisciplinary teams: A nursing perspective. In Ricciardelli L, Caltabiano M. (Eds.). *Applied topics in health psychology*. 2012;495-504. Wiley-Blackwell: Oxford.
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- Duiveman T, Bonner A. Negotiating: Experiences of community nurses when contracting with clients. *Contemporary Nurse Journal*. 2012;41(1):120-125.
- Dywili S, Bonner A, Anderson J, O'Brien L. Experiences of overseas trained health professionals in rural and remote areas of destination countries. *Australian Journal of Rural Health*. 2012;20(4):175-184.
- EVOLVE Trial Investigators Effect of cinacalcet on cardiovascular disease in patients undergoing dialysis. *NEJM*. 2012 Dec;367:2482-94.
- Fassett RG, Coombes JS. Astaxanthin in cardiovascular health and disease molecules. 2012 Feb 20;17(2):2030-48.
- Fassett RG, Robertson IK, Ball MJ, Cardinal J, Geraghty DP and Coombes JS The effect of atorvastatin on NGAL and Cystatin C in chronic kidney disease: The LORD Trial. *Nephrology dialysis and transplantation*. 2012 Jan;27(1):182-9.
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- Johnson DW, Brown FG, Clarke M, Boudville N, Elias TJ, Foo MW, Jones B, Kulkarni H, Langham R, Ranganathan D, Schollum J, Suranyi MG, Tan SH, Voss D; balANZ Trial Investigators. The effect of low glucose degradation product, neutral pH versus standard peritoneal dialysis solutions on peritoneal membrane function: The balANZ trial. *Nephrol Dial Transplant*. 2012 Dec;27(12):4445-53.
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- Matsumoto A, Mason S, Flatscher-Bader T, Ward LC, Marsh SA, Wilce PA Fassett RG, Coombes JS Effects of Exercise and Antioxidant Supplementation on Endothelial Cell Gene Expression *International Journal of Cardiology*. 2012 Jun;158(1):59-65.

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- Mohapatra A, Basu G, Sen I, Asirvatham R, Michael JS, Pulimood AB, John GT. Tuberculosis in a renal allograft recipient presenting with intussusception. *Indian J Nephrol.* 2012 Jan;22(1):52-6.
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- Venuthurupalli SK, Hoy WE, Healy H, Salisbury A and Fassett RG CKD.QLD: Chronic Kidney Disease surveillance and research in Queensland, Australia *Nephrology Dialysis and Transplantation.* 2012;27(Supple 3): iii139–iii145.

# Department of Rheumatology



**Dr Paul Kubler**  
Director, Rheumatology

## Overview

The Department of Rheumatology provides a comprehensive range of diagnostic and therapeutic services to patients with acute and chronic musculoskeletal disease.

Areas of research interest include management of inflammatory arthritis and anti-phospholipid syndromes, myocardial abnormalities in SLE (investigation with cardiac MRI), clinical research including evaluation of new treatment modalities for rheumatic illness and quality of life and burden of disease of patients with musculoskeletal disease.

The department has a focus on adolescent rheumatology and has established the Young Adults with Rheumatic Disease (YARD) Service for optimising the care of 16-25 year old patients (including transition care) in a multidisciplinary environment.

The department liaises closely with other medical specialties, allied health and community service providers to optimise patient outcomes. In particular, there is a monthly combined renal-rheumatology clinic (vasculitis and SLE) and bi-monthly respiratory-rheumatology service.

## Research staff

Name	Qualifications	Position	Interests/specialties
Dr Paul Kubler	MBBS, FRACP	Director, Rheumatology	inflammatory arthritis and drug use in rheumatic diseases
Dr Alex Klestov	MBBS, FRACP	Staff Specialist	osteoarthritis, rheumatoid arthritis
Dr Sumant Kevat	MBBS, FRACP	Visiting Specialist	inflammatory arthritis
Dr Michael Gunsberg	MBBS, FRACP	Visiting Specialist	inflammatory arthritis
Dr Lisa Cummins	MBBS	Advanced Trainee	vasculitis
Dr Adam Mair	MBBS	Advanced Trainee	gout
Kellie Stockton	BPthy	PhD candidate	SLE cardiac imaging, fatigue and vitamin D status
Dr Ben Whitehead	MBBS, FRACP	Clinical Fellow	adolescent rheumatology

## Publications

Coppieters MW, Schmid AB, Kubler PA and Hodges PW. Description, reliability and validity of a novel method to measure carpal tunnel pressure in patients with carpal tunnel syndrome. *Manual Therapy*. 2012.

# Department of Thoracic Medicine



**Assoc. Prof. Stephen Morrison**  
Director, Thoracic Medicine

## Overview

PhD titled 'Improving pleural procedures: training and image analysis.' There are five separate studies.

- » The 'Thoracic ultrasound imaging of the intercostal artery' study documents the diagnostic power of ultrasound to visualise the intercostal artery prior to chest drainage procedures by comparing it to computed tomography angiography. This is important as it allows for screening of an 'at risk' intercostal artery before performing a chest drainage procedure.
- » Development of assessment tools for physicians performing thoracic ultrasound titled 'The Ultrasound: Guided skills and tasks assessment test (UGSTAT)', and 'The Chest Tube Insertion Competency Test (TUBE-iCOMPT)'. These studies develop and validate instruments used to assess the competence of a physician at performing thoracic ultrasound and inserting a chest tube. This is important as there has been a global move towards competency-based medical procedural training and the use of ultrasound by chest physicians to guide chest drainage procedures. Before these two studies however there were no tools available to assess the adequacy physician training at thoracic ultrasound or the insertion of a chest tube.
- » Identification of entrapped lung in people with malignant pleural effusion – In a minority of people with malignant pleural effusion, the lung won't re-expand following drainage of the effusion - the lung is 'entrapped'. Although this changes the management options, no methods exist to predict the presence of entrapped lung. This study uses motion analysis of ultrasound images of the patients pleural effusion to predict the presence of entrapped lung prior to pleural effusion drainage.
- » Validation of a new method for performing pleural manometry – This study validates a refined technique for the performance of manometry during drainage of a pleural effusion, which is easier and quicker than the traditional method.

## Research staff

Name	Qualifications	Position	Interests/specialties
Assoc. Prof. Stephen Morrison	FRACP, PhD	Director, Thoracic Medicine	respiratory medicine
Dr Matthew Salamonsen	MBBS, FRACP	Honourary Staff Specialist	interventional pulmonology
Dr David Fielding	MBBS, MD, FRACP	Staff Specialist	interventional pulmonology
Dr Farzad Bashirzadeh	MBBS, FRACP	Staff Specialist	interventional pulmonology
Dr Geoff Steiler	MBBS	Registrar	radiology
Dr David McGrath	MScApp	Sonographer	ultrasonography
Dr Robert Ware	PhD	Statistician	statistics
Dr Karin Steinke	MD, PhD	Staff Specialist	radiology
Dr Karen Dobeli	PhD	Radiographer	radiology
Dr Craig Readdy	GDipScApp	Sonographer	Ultrasonography

## Supervised post-graduate students

Name	Current studies	Research topic
Salamonsen, M.	PhD	Pleural procedures

## Research grants

Investigators	Research title	Granting body	Amount awarded	Years of funding
Salamonsen, M.	Improving pleural procedures	NHMRC	\$36,000	2012-2014
Salamonsen, M.	Improving pleural procedures	RBWH Foundation	\$26,000	2011-2013

## Publications

Salamonsen M, Ellis S, Paul E, Steinke K, Fielding D. Thoracic ultrasound demonstrates variable location of the intercostal artery. *Respiration*. 2012;83(4):323-9.



